# Legislative Budget and Finance Committee

A JOINT COMMITTEE OF THE PENNSYLVANIA GENERAL ASSEMBLY

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# Potential Costs and Impacts of HB 130 (Early Retirement Incentives) and HB 131 (Cost-of-Living Increases)

Pursuant to
House Resolution 299 of 2005

April 2006

# Legislative Budget and Finance Committee

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**CHIEF ANALYST**
JOHN H. ROWE, JR.

April 2006

To the Members of the General Assembly:

House Resolution 299 of 2005 directed the Legislative Budget and Finance Committee to conduct a comprehensive fiscal and policy analysis of two bills currently pending before the General Assembly: House Bill 130, pertaining to early retirement incentives for state and public school employees, and House Bill 131, pertaining to automatic cost of living adjustments for SERS and PSERS retirees. The resolution also calls for the analysis to include "such logical variations of those proposals which may be suggested by the study, even though not specifically named in each bill."

Due to the specialized nature of this study, the Committee issued a Request for Proposal for assistance in July 2005. In September 2005, the Committee contracted with Milliman Consultants and Actuaries to conduct the study.

Milliman's report is contained herein. As with all LB&FC reports, the release of this report should not be construed as an indication that the Committee or its individual Committee members necessarily concur with its findings and recommendations.

Sincerely,

Philip R. Durgin
Executive Director

# *Pennsylvania Legislative Budget and Finance Committee*

## *HR299 Study: HB 130 Early Retirement Incentive HB 131 Cost-of-Living Increase*

**Submitted By:**

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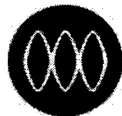

**Milliman**

*Consultants and Actuaries*

March 30, 2006
(updated June 2006)

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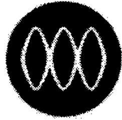

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March 30, 2006

Mr. Philip R. Durgin, Executive Director
Pennsylvania Legislative Budget and Finance Committee
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**RE: HR299 Study – Report on HB130 and HB131**

Dear Phil:

House Bill 130 and House Bill 131 describe potential early retirement incentive programs (ERIPs) and automatic cost-of-living increases (COLAs), respectively, for members of the State Employees Retirement System (SERS) and the Public School Employees Retirement System (PSERS). In House Resolution 299 the Legislature requested a comprehensive study to answer several questions relating to the cost and personnel impacts of these bills.

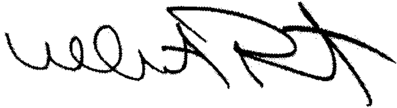
Our analysis begins with a Background section that reviews the current funding arrangements of the pension and insurance benefits provided to members of SERS and PSERS and also reviews the potential impact of the new retiree healthcare accounting standard on the insurance benefits. In Section 1 we analyze the cost and liability impacts of the HB 130 ERIP and the HB 131 COLA. In Sections 2 through 7 we review past ERIPs and COLAs and provide additional analysis of the potential impacts of these bills. Our high level findings and recommendations are provided in the Executive Summary.

This report would not have been possible without the cooperation and guidance of representatives of several agencies and organizations. We would like to thank in particular the Committee staff, SERS, PSERS, the Pennsylvania Employees' Benefit Trust Fund and the Office of Administration for their extensive assistance in providing data and answering our questions regarding the operation and funding of the systems.

We are members of the American Academy of Actuaries and meet its Qualification Standards to render this actuarial opinion.

Mr. Philip R. Durgin
March 30, 2006
Page 2

Sincerely,



William A. Reimert, FSA, CFA, EA
Principal and Consulting Actuary

Glenn D. Bowen, FSA, EA
Principal and Consulting Actuary

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This report was prepared exclusively for the use and benefit of the Pennsylvania Legislative Budget and Finance Committee for a specific and limited purpose. It is a complex, technical analysis that assumes a high level of knowledge concerning the operations of the retirement systems and the insurance programs covering retired members, and uses data that Milliman has not audited. Any third party recipient of Milliman's work product who desires professional guidance should not rely upon Milliman's work product, but should engage qualified professionals for advice appropriate to its own specific needs.

# INTRODUCTION

This report was prepared exclusively for the use and benefit of the Pennsylvania Legislative Budget and Finance Committee for a specific and limited purpose. It is a complex, technical analysis that assumes a high level of knowledge concerning the operations of the retirement systems and the insurance programs covering retired members, and uses data that Milliman has not audited. Any third party recipient of Milliman's work product who desires professional guidance should not rely upon Milliman's work product, but should engage qualified professionals for advice appropriate to its own specific needs.

# INTRODUCTION

## House Resolution 299

House Resolution 299 directed the Legislative Budget and Finance Committee to prepare a comprehensive fiscal, actuarial, and policy analysis of the early retirement proposals found in House Bill No. 130, Printer's No. 631 (2005) and the cost-of-living proposals found in House Bill No. 131, Printer's No. 632 (2005), as well as logical variations of those proposals. These proposals would, if enacted, affect the State Employees' Retirement System (SERS) and the Public School Employees' Retirement System (PSERS).

The Legislative Budget and Finance Committee retained Milliman, Inc. to perform this study.

Specifically, the Study was to address the following with respect to these Bills:

1. The costs and assets required to fund initiatives, now and over the next ten years.
2. The past impact of early retirement incentives on budgets and work force needs.
3. The actual value of past cost-of-living increases for retirees.
4. The value of early retirement programs in providing employment for younger workers.
5. The potential impacts on the mix of critical skills and experience within Commonwealth agencies and school districts and the various alternatives to maintaining or ensuring adequate staffing in the context of retirement enhancements.
6. The impacts likely on the General Fund of the Commonwealth and various types of school districts according to size, aid ratio, and other relevant factors.
7. The health and welfare of retirees.

## Summary of House Bills 130 and 131

We have summarized our understanding of the effect of the changes proposed in HB 130 and HB 131 below.

*House Bill 130*

HB 130 would allow eligible members of SERS and PSERS to retire and receive (1) an annuity without reduction and (2) any insurance coverage under a contract affecting the member in the event that the member has not yet attained superannuation eligibility provided that the member has:

- completed 30 years of service, or
- the sum of the member's age and years of service totals 80 or more years.

These special early retirement incentive programs (ERIPs) would be available to members of SERS who retire from July 1, 2006 through June 30, 2008 and to members

of PSERS who apply for retirement during March 1 through June 1 in either 2006 or 2007, with an effective date of retirement not later than July 1 in the respective year. The incentive under HB 130 would effectively apply to:

- SERS and PSERS members under age 50 with between 30 and 35 years of service;
- SERS and PSERS members between age 50 and 60 for whom the sum of their age and service totals 80 or more years but who have completed less than 35 years of service (e.g., a member age 50 with 30 years of service or a member age 59 with 21 years of service); and,
- PSERS members age 60 who have completed between 20 and 30 years of service or age 61 with between 19 and 30 years of service (under current law, SERS members can retire at age 60 or later provided they have completed 3 years of service.)



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# INTRODUCTION

The following graphs illustrate the current superannuation provisions (shaded areas) for SERS (Class AA) and PSERS, and the enhanced provisions of HB 130 (X'ed areas).

SERS Class AA Superannuation

35 years

ELIGIBLE FOR INCENTIVE

Age 60 with 3 years

Years of Service: 5, 10, 15, 20, 25, 30, 35, 40

Age: 45, 50, 55, 60, 65, 70

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PSERS Superannuation

35 years

Age 60 with 30 years

ELIGIBLE FOR INCENTIVE

Age 62 with 1 year

Years of Service

Age

We have interpreted the insurance coverage mentioned in the Bill to refer to the insurance coverage a SERS member would be eligible to receive from their employer or the Commonwealth if he or she had satisfied the requirements for superannuation retirement at the time of retirement (e.g. – members eligible for the ERIP would receive

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retiree healthcare insurance). With respect to PSERS members, we have interpreted the insurance coverage mentioned in the Bill to refer to the coverage provided by the member's employer pursuant to Act 110 (1998) and Act 43 (1989), by the PSERS Health Options Program and Premium Assistance Program, or pursuant to a collective bargaining agreement, if any.

*House Bill 131*

HB 131 would provide annual cost-of-living adjustments (COLAs) to annuitants equal to the percentage change in the Consumer Price Index for all Urban Consumers (CPI-U) for the Pennsylvania, New Jersey, Delaware and Maryland area, officially reported by the United States Department of Labor, Bureau of Labor Statistics.

**Report**

This report summarizes the results of this Study. In order to place those results into their proper perspective, the report first will present a summary of the costs and assets required to fund SERS, PSERS and insurance coverage to retirees, such as that provided to SERS retirees under the Pennsylvania Employee Benefits Trust Fund (PEBTF), now and over the next ten years, based on their current provisions. It then discusses each of the areas addressed in the study in the sequence listed above. Descriptions of the study methodologies and actuarial assumptions are contained in the Appendices.

**Reliance on Data and Other Information Provided to Milliman**

In performing this analysis, we relied on data and other information provided by the Committee, SERS, PSERS, the systems' actuaries, PEBTF and various other State agencies. We have not audited or verified this data and other information. If the data or information are inaccurate or incomplete, the results of our analysis likewise may be inaccurate or incomplete.

We performed a limited review of the data used directly in our analysis for reasonableness and consistency and have not found material defects in the data. If there are material defects in the data, it is possible that they would be uncovered by a detailed, systematic review and comparison of the data to search for data values that are questionable or for relationships that are materially inconsistent. Such a review was beyond the scope of our assignment.

**Assumptions and Methods**

Except where noted, we have used the actuarial assumptions and methods used to prepare the December 31, 2004 actuarial valuation of SERS and the June 30, 2005 actuarial valuation of PSERS to prepare the cost estimates and projections presented in this report. While these do not necessarily represent Milliman's best estimate of future experience under SERS and PSERS, we believe that these assumptions, which were

adopted by the Boards of SERS and PSERS, are reasonable assumptions for the purposes of this report.

Differences between our projections and actual amounts depend on the extent to which future experience conforms to the assumptions made for this analysis. It is certain that actual experience will not conform exactly to the assumptions used in this analysis. Actual amounts will differ from projected amounts to the extent that actual experience deviates from expected experience.

**Additional Material**

Subsequent to our completion of our analysis upon which this report is based, additional information regarding SERS and PSERS recent results was provided to us. Please see our letter dated June 8, 2006, attached as Appendix E, that discusses the impact of the additional information on the analysis contained in this report.

# EXECUTIVE SUMMARY

## EXECUTIVE SUMMARY

Our findings are summarized below.

**Current Funded Status and Contributions to SERS and PSERS**

- As of December 31, 2004, SERS had a funded ratio of 95% based on the market value of its assets and the traditional actuarial measure of its liabilities - $26.6 billion of assets vs. $28.0 billion of liabilities. As of June 30, 2005, PSERS had a funded ratio of 85% on a comparable basis - $52.0 billion of assets and $61.2 billion of liabilities. These funded statuses rank above median relative to the reported funded status of other public sector retirement systems.
- These funded ratios are projected to deteriorate through the end of FY 2011-12, based on the current contribution rates required by law, to 82% for SERS and to 77% for PSERS, which would be below median for public systems. This deterioration will be due to the fact that annual contributions (calculated as specified in the Retirement Code per Act 2003-40) currently fall short of covering the normal cost of SERS and PSERS; i.e., the cost of benefits earned by employees each year exceeds the contributions required under current law through FY 2011-12.
- Annual employer contributions to SERS are scheduled to increase by $1.0 billion, or 15.5% of payroll, in fiscal year 2012-13 based on current law. Similarly, annual employer contributions to PSERS are scheduled to increase by $2.3 billion, or 16.3% of payroll, at that time. It is not clear how the Commonwealth and the other contributing employers will find the resources to satisfy those scheduled contribution increases at that time.
- While the funded status of SERS and PSERS are currently above median based on public sector accounting rules relative to other public systems, they are well below median (in the bottom quartile) relative to corporate pension plans when their funded statuses are measured based on current private sector accounting rules. We anticipate that the Governmental Accounting Standards Board (GASB) will review the current public sector pension accounting rules to determine if they should be updated in light of criticisms of the current standards. Future movement toward private sector rules could adversely affect the reported funded statuses of SERS and PSERS which might adversely affect the Commonwealth's borrowing costs.

**Current Funded Status and Contributions to PEBTF**

- PEBTF provides health insurance benefits to the majority – roughly 85% - of state employees and retirees.
- No assets have been accumulated by PEBTF to "pre-fund" the cost of retiree health insurance benefits during active employment as has been done for pension benefits provided by SERS and PSERS.
- New accounting requirements from GASB will require public sector benefit plans and employers to report the cost of these benefits on a "pre-funded" or actuarial basis. These new requirements take effect starting with PEBTF's 2006-7 fiscal


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year. We have roughly estimated that the annual cost of the retiree health insurance benefits provided by PEBTF on the new basis will be approximately $1.2 billion, or 26.7% of payroll, which is significantly higher than the $0.5 billion contributed by the state in fiscal year 2004-5.

**Potential Impact of HB 130 on the Funded Status and Contributions to SERS and PSERS and on Contributions to PEBTF and Premium Assistance**

- Total cumulative payroll savings due to the early retirement incentive program (ERIP) proposed in HB 130 are estimated to total $0.6 billion during the 10 years through FY 2015-16 for SERS members and $2.0 billion for PSERS active members. In the case of SERS, 77% of those savings would have been realized by the end of FY 2011-12. In the case of PSERS, 87% of the payroll savings would have been realized by the end of FY 2011-12.
- The annual employer contributions to SERS would increase by an estimated $82 million per year for each of the five years subsequent to adoption of the bill, with total net additional contributions of $0.4 billion through FY 2015-16. (Since the majority of the payroll savings due to an ERIP would be realized within the five years immediately following the ERIP, we have amortized the increased actuarial liabilities over 5 years ending with FY 2011-12.) The comparable increase for PSERS was an estimated $275 million per year for 5 years, with total net additional contributions of $1.4 billion through FY 2015-16.
- The cumulative employer contributions to PEBTF and other health insurance programs for retired State employees were estimated to increase by $0.5 billion over the 10 years ending FY 2015-16.
- The cumulative additional cash cost to School Districts for the insurance continuation mandated by Acts 110 and 43 is estimated to be roughly $0.1 billion through FY 2015-16, with roughly 70% of those costs payable through the end of FY 2011-12.
- Thus the total net cumulative employer cost of offering to SERS members the ERIP proposed in HB 130 is estimated to be $0.3 billion over the 10 years ending FY 2015-16. The comparable figure for PSERS is a net savings estimate of $0.5 billion, due primarily to the less generous health insurance benefits provided to PSERS retirees than to SERS retirees (for school districts that provide health insurance benefits at the local level in excess of what is mandated by Acts 110 and 43, these estimated savings may be more than offset by additional insurance costs.)
- Based on projected workforce needs, there is no apparent need for an ERIP in order to decrease the number of employees due to the high level of terminations projected due to the retirement of "Baby Boomers" and normal turnover. On the other hand, an ERIP can be expected to exacerbate issues due to the need to replace retiring employees with critical skills and experience.
- A disproportionate share of those potentially eligible for an ERIP in PSERS would be members with a teaching certificate. Roughly 60% of active PSERS members

are certificated. We estimate that 80% of those eligible for an ERIP would be certificated.

**Potential Impact of HB 131 on the Funded Status and Contributions to SERS and PSERS**

- We have estimated the impact of an automatic COLA to SERS and PSERS annuitants for the following provisions, which differ from the broader wording in HB 131.
  - COLAs would be limited to 3% per annum;
  - COLAs would only be provided to annuitants after they attain superannuation age;
  - COLAs would only be provided to annuitants after they have been retired 12 months or more; and,
  - COLAs would not be provided to survivor annuitants.
- The annual employer contributions to SERS based on current statutory requirements and the above provisions would increase by an estimated $1.2 billion per year for each of the ten years subsequent to adoption of the bill, for a total of $12.1 billion. The comparable increase for PSERS would an estimated $2.7 billion per year over the same period, for a total of $26.5 billion. (These estimated contribution increases are based on the modifications to HB 131 described above.)
- The actuarial liabilities of SERS would increase by $6.6 billion as the result of the adoption of such a bill, which would decrease SERS' funded ratio to approximately 71%. The comparable figures for PSERS would be a liability increase of $14.3 billion and a funded ratio of 66%. This would decrease the funded ratios of both SERS and PSERS to well below median relative to other public retirement systems.
- An unlimited COLA, as provided for by HB 131, could cost significantly more than the estimates shown above, possibly catastrophically so if we encounter an extended period of high inflation such as during the 1970's and 1980's.
- Since the benefits provided to long-service Class AA and TD members of SERS and PSERS, respectively, exceed final salary when added to the members' Social Security benefits, it would be possible to offer members a new benefit option at retirement that would provide an actuarially reduced immediate pension that would increase automatically for COLAs (subject to a limit such as 3% per year) after retirement. The reduction in the members' benefit at retirement could, if properly calculated, offset the full cost of the COLA.
- Other logical variations could include a one-time, ad hoc COLA such as the Supplemental Annuities that have been traditionally provided to SERS' and PSERS' annuitants.

Milliman

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Our recommendations are summarized below.

**Recommendations regarding contributions to fund the current pension provisions of SERS and PSERS**

We recommend that, before consideration of possible benefit enhancements that will increase the long-term costs of SERS and PSERS, the Commonwealth develop a pattern of employer contributions on behalf of the current pension provisions that will:

- cover the full normal cost (the cost of benefits earned each year);
- amortize the existing unfunded actuarial accrued liabilities over a reasonable time-frame; and,
- produce increases in employer contributions that are expected to be affordable when they are scheduled to occur (under current law, SERS contributions are projected to increase by $1.0 billion and PSERS contributions increase by $2.3 billion between FY 2011-12 and FY 2012-13.)

**Recommendations regarding HB 130**

We recommend consideration of allowing school districts to determine whether their employees would be eligible for the proposed ERIP in HB 130. The ERIP could cause the accelerated retirement of a large number of PSERS members with critical skills or experience. If each school district had the option to "opt-out" of the ERIP, the possibility that the ERIP would impair the ability of districts to maintain an adequate workforce could be mitigated. If practical, we would recommend that the same consideration be given to allowing individual state agencies to determine whether their employees would be eligible for the proposed ERIP.

**Recommendations regarding HB 131**

1. We strongly recommend that the Commonwealth be very cautious in considering whether to enact an automatic CPI-based COLA, especially if that COLA were unlimited. Automatically increasing pensions for inflation without any limitation could severely impair the Commonwealth's ability to finance other public services during an extended period of high inflation. Public retirement systems that index pensions for price inflation after retirement typically set a limit, such as 3%, on the amount of annual price increase that would be reflected.

2. If the Legislature desires to enact legislation that would provide COLAs to annuitants, we recommend that:
   - consideration be given to limiting an automatic CPI-based COLA to some amount such as 3%;
   - consideration be given to limiting the COLAs to annuitants who have attained superannuation age;



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- consideration be given to limiting the COLAs to annuitants who have been retired for 12 months or more; and,
- consideration be given to excluding retirees since June 2001 (they receive the increased benefits under Act 9 of 2001) from COLAs, whether automatic or ad hoc, until the time when COLAs exceeding a cumulative 25% increase are granted to annuitants who retired prior to July 2001; i.e., the date when the increased benefits under Act 9 became effective.




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# BACKGROUND ON FUNDING OF CURRENT PENSION BENEFITS

# BACKGROUND ON FUNDING OF CURRENT PENSION BENEFITS

## Costs and Assets required for current pension provisions

*Pension Assets and Funded Status*

SERS and PSERS are relatively mature retirement systems established many decades ago. Contributions have been made by both employee members and their employers since the systems were created. In addition, each of the systems invests those contributions in order to earn investment income to support the benefits payable to retired members and their beneficiaries. As a result, significant assets have been accumulated - $26.6 billion in the case of SERS as of December 31, 2004 and $52.0 billion in the case of PSERS as of June 30, 2005. Without a measure of the obligations of the system or some other funding target, it is impossible to determine whether the current assets are adequate, redundant, or fall short what is required for existing obligations.

Funded Status Relative to Other Public Employee Retirement Systems

One way to make this determination is to compare the assets of a system with its Actuarial Accrued Liability. This is the traditional measure of actuarial liabilities for public systems. The Actuarial Accrued Liability represents the amount of assets that should have been accumulated as of the valuation date based on the actuarial cost method used to determine contribution rates. (In the case of both SERS and PSERS, the actuarial cost method is described in statute. It is the entry age actuarial cost method, which is the cost method most widely used by public employee retirement systems in the U.S.)

Each year SERS and PSERS have an actuarial valuation prepared. One of the figures presented in those reports is the Actuarial Accrued Liability described above. We have summarized in the table below the Actuarial Accrued Liability as reported in the most recent actuarial valuation report for each system as a first measure of the amount of assets "required" to fund SERS and PSERS and have compared it with the market value of assets as of that date.

| | SERS | PSERS |
|---|---|---|
| Valuation Date | December 31, 2004 | June 30, 2005 |
| Actuarial Accrued Liability | $28.0 billion | $61.2 billion |
| MV Assets | 26.6 billion | 52.0 billion |
| UAL | 1.4 billion | 9.2 billion |
| Ratio of Assets to Liabilities | 95.0% | 85.0% |

It is common for even relatively mature retirement systems, such as SERS and PSERS, to have Unfunded Actuarial Accrued Liabilities (UAL). A UAL can arise as benefit improvements are adopted, such as Act 2001-9 or Supplemental Annuities, or due to adverse actuarial experience, such as has occurred in recent years due to adverse investment returns.

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## BACKGROUND ON FUNDING OF CURRENT PENSION BENEFITS

To place the funded status of SERS and PSERS into perspective, we have compared below their funded status with the funded status of other jumbo public employee retirement systems with the same valuation dates. (Source: *Public Fund Survey Summary of Findings for FY 2004* prepared by the National Association of State Retirement Administrators.) These comparisons differ from the figures shown in the previous table in two respects.

1. First, the asset figures reported are the "actuarial value" of assets, which typically smooth the recognition of investment market gains or losses. This is the traditional way that public retirement systems report their assets for actuarial purposes. It is common after periods of sustained market losses (gains) for retirement systems to have actuarial values in excess of (below) market values, as the losses (gains) have yet to be fully recognized.
2. The second difference affects the comparative data for PSERS. Since actuarial valuation results are not yet available for public retirement systems as of June 30, 2005, we have shown comparative data for PSERS as of a year earlier – June 30, 2004.

Systems with a June 30 fiscal year-end like PSERS
with Assets of $10 billion or greater
Data as of June 30, 2004

| System Name | Actuarial Accrued Liabilities | Actuarial Value of Assets | Funded Ratio |
|---|---|---|---|
| | Amounts in Billions | Amounts in Billions | |
| PA PSERS | $57.1 | $52.1 | 91.2% |
| | | | |
| California Teachers | $138.3 | $114.1 | 82.5% |
| Florida Retirement System | 95.2 | 106.7 | 112.1 |
| Ohio Teachers | 69.9 | 52.3 | 74.8 |
| New Jersey Teachers | 40.4 | 34.6 | 85.6 |
| Illinois Teachers | 50.9 | 31.5 | 61.9 |
| New Jersey PERS | 29.9 | 27.4 | 91.5 |
| Missouri Teachers | 26.2 | 21.5 | 82.0 |
| Maryland Teachers | 21.7 | 20.2 | 92.8 |
| New Jersey Police & Fire | 22.3 | 18.7 | 84.0 |
| Minnesota Teachers | 17.5 | 17.5 | 100.0 |
| Mississippi PERS | 22.8 | 17.1 | 74.9 |
| Iowa PERS | 19.1 | 17.0 | 88.6 |
| Kentucky Teachers | 20.8 | 14.4 | 69.4 |
| Nevada Regular Employees | 17.0 | 13.7 | 80.5 |
| Georgia ERS | 13.2 | 12.8 | 97.0 |
| Illinois Universities | 19.1 | 12.6 | 66.0 |
| Minnesota PERF | 15.0 | 11.5 | 76.7 |
| Louisiana Teachers | 18.1 | 11.4 | 63.1 |
| **Median (excluding PSERS)** | | | **82.3%** |

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Systems with a December 31 fiscal year-end like SERS
with Assets of $10 billion or greater
Data as of December 31, 2004

| System Name | Actuarial Accrued Liabilities | Actuarial Value of Assets | Funded Ratio |
|---|---|---|---|
| | Amounts in Billions | Amounts in Billions | |
| Pennsylvania SERS | $28.0 | $26.9 | 96.1% |
| | | | |
| Colorado State & Schools | $40.8 | $28.6 | 70.1% |
| Illinois Municipal | 19.4 | 18.3 | 94.3 |
| Texas County & District | 11.8 | 12.4 | 104.9 |
| Utah Non-contributory | 13.2 | 12.2 | 92.4 |
| Texas Municipal | 14.0 | 11.6 | 82.8 |
| **Median (excluding SERS)** | | | **92.4%** |

Based on the above data, the funded statuses of SERS and PSERS were above median relative to other jumbo public employee retirement systems as of December 31, and June 30, 2004 respectively. But as discussed below, the funded statuses of each system is expected to deteriorate significantly over the next 6 years because employer contributions have been, and are scheduled to remain, significantly below the normal cost (the cost of benefits earned during that year) through FY 2011-12. For example, the projected funded ratios for SERS and PSERS at the end of FY 2011-12 are 82% and 78%, respectively. Both of these forecast funded ratios are below the median funded ratios shown above. The current UALs would be expected to grow to approximately $7 billion for SERS and $18 billion for PSERS over this time period when contributions are scheduled to be below the normal cost.

Funded Status Relative to Private Sector Defined Benefit Pension Plans

A different approach is taken to measure pension obligations and funded status for private sector pension plans for accounting purposes. We believe that it is important to present to the Committee information regarding the funded status of SERS and PSERS based on the private sector rules because it is possible that the public sector accounting rules for disclosing pension obligations will be modified in the future. There has been significant media attention to the unfunded pension and health insurance obligations of both private and public sector employers. Congress is currently considering significant changes in the rules private sector employers use to determine contributions; the Financial Accounting Standards Board is currently developing changes in the rules private sector employers use to account for pension obligations. It would seem likely that public sector rules will, sooner or later, be reconsidered also and could potentially move toward private sector rules.

Since the pension obligations disclosed for accounting purposes are used by bond rating agencies in determining the rating of bond issues, a significant change in these obligations could affect the cost of borrowing to the Commonwealth. As part of the

consideration of a possible significant improvement in pension benefits that might be constitutionally protected from diminution, it seems appropriate to anticipate the effect of possible accounting changes that could affect the affordability of the proposed benefit enhancements over the long term.

The private sector approach for measuring pension obligations ignores the actuarial methods used to develop plan contributions, which is the approach traditionally used by public sector pension plans. Instead, private sector pension plans measure the amount of benefits earned by members as of the valuation date based solely on their service-to-date and without regard to the actuarial methods used to determine employer contributions. Two such measures are disclosed.

1. One of them reflects only service and compensation earned-to-date. This measure is called the **Accumulated Benefit Obligation**.
2. The other reflects only service-to-date, but is adjusted to reflect the effects of future salary increases on benefits earned-to-date. This measure is called the **Projected Benefit Obligation**.

There is a second significant difference between the public and private sector approaches for measuring pension obligations. In the public sector, the discount rate used to measure the obligations reflects the expected long-term compounded rate of return on plan investments. In the private sector, the discount rate is based on the current yield on high-quality fixed-income obligations.

We have summarized in the table below a comparison of the estimated funded status of SERS and PSERS, based on private sector accounting rules, relative to private sector defined benefit pension plans with over $10 billion of assets as of the end of the plan sponsor's fiscal year ending 2004. The percentage figures shown are the ratio of the market value of plan assets to the:

1. Projected Benefit Obligation (PBO), and
2. Accumulated Benefit Obligation (ABO).

Estimated Funded Status of SERS and PSERS
based on private sector accounting rules as of the end of their fiscal years ending 2004

| Measurement based on: | PBO | ABO |
|---|---|---|
| SERS | 68% | 85% |
| PSERS | 70% | 82% |
| Private sector defined benefit pension plans with over $10 billion of assets | | |
| Percentile | | |
| Highest | 133% | 136% |
| 75th | 100% | 104% |
| 50th (or Median) | 91% | 100% |
| 25th | 83% | 94% |
| Lowest | 61% | 69% |

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Based on this analysis, the funded status of both SERS and PSERS are in the bottom quartile relative to comparable jumbo private sector defined benefit pension plans.

Funded Status - Summary

In summary, the funded status of both SERS and PSERS are above average (median) relative to other jumbo ***public*** employee retirement systems, but well below average (median) relative to jumbo ***private*** sector defined benefit pension plans. Moreover, the funded statuses of SERS and PSERS are expected to deteriorate significantly over the next 6 years because employer contributions have been, and are scheduled to remain, significantly below their normal cost (the cost of benefits earned during that year) through FY 2011-12.

Given all of the public attention currently focused on the funded status of private and public sector pension plans, we believe it is likely that public sector accounting rules may be reconsidered, especially if the private sector rules are modified as expected in 2006. Moreover, we believe that if the public sector accounting rules are changed, they will probably converge toward the private sector rules. As indicated above, the funded status of both SERS and PSERS would look worse under private sector rules than they do under the current public sector accounting rules. Thus if public sector accounting rules converge toward private sector accounting rules, rating agencies may reduce the bond credit ratings of the Commonwealth and other contributing employers, which could increase its borrowing costs.

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*Annual Pension Cost*

The annual costs of SERS and PSERS, under current accounting rules, are based on actuarial methods and amortization periods set forth in statute and on actuarial assumptions adopted by the SERS and PSERS Boards. Based on those methods and assumptions an actuarial valuation is completed annually to develop the employer contribution rates.

The FY 2005-6 member and employer contribution rates to SERS and PSERS are summarized in the following table, along with the Normal Cost and the approximate FY 2005-6 payroll to which those rates apply. (The Normal Cost represents the long-term average cost of benefits that will accrue in the future.)

| | SERS | | PSERS |
|---|---|---|---|
| | Class AA | Total | |
| Member Contribution Rate | 6.25% | 6.00% | 7.16% |
| Employer Contribution Rate | 2.37% | 3.02% | 4.00% |
| Total Contribution Rate | 8.62% | 8.79% | 11.16% |
| | | | |
| Total Normal Cost | 14.50% | 14.50% | 14.77% |
| | | | |
| Payroll | $4.0 billion | $5.2 billion | $11.5 billion |
| | | | |
| Est. Member Contributions | $250 million | $300 million | $ 825 million |
| Est. Employer Contributions | $ 95 million | $155 million | $ 460 million |
| Est. Total Contributions | $345 million | $455 million | $1,285 million |
| | | | |
| Est. Total Normal Cost | $580 million | $755 million | $1,700 million |

As indicated above, the current member and employer contribution rates (calculated as specified in the Retirement Code per Act 2003-40) are less than the normal cost for both SERS and PSERS. ***Hence, the current level of contributions falls short of covering the cost of benefits currently being earned by approximately $715 million a year and makes no provision to amortize the UALs.*** As a result, the UALs of these two systems, which totaled approximately $6.1 billion as of the close of their fiscal years ending 2004, can be expected to annually grow by $715 million since contributions do not cover the normal cost, plus an additional approximately $520 million due to interest on the existing UAL, for a total of over $1.2 billion per year. (This dollar amount will increase at an increasing rate in future years as payroll increases and the UAL increases, leading to projected FY 2011-12 UALs of roughly $7 billion for SERS and $18 billion for PSERS.)

Appendix A contains tables and plots illustrating the projected growth of assets, liabilities, UALs and funded statuses of SERS and PSERS through FY 2011-12.

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## BACKGROUND ON FUNDING OF CURRENT PENSION BENEFITS

In FY 2012-13 employer contribution rates are forecast to increase significantly, as summarized below. Note that the member contribution rates are set by law and will not change materially over time.

| Projected Employer Rate in: | SERS | PSERS |
|---|---|---|
| FY 2005-6 | 3.02% | 4.00% |
| FY 2006-7 | 4.66% | 5.72% |
| FY 2007-8 | 5.40% | 6.32% |
| FY 2008-9 | 4.35% | 6.01% |
| FY 2009-10 | 4.15% | 5.16% |
| FY 2010-11 | 4.39% | 4.92% |
| FY 2011-12 | 4.66% | 4.97% |
| FY 2012-13 | 20.16% | 21.23% |
| FY 2013-14 | 20.05% | 20.31% |
| FY 2014-15 | 18.97% | 18.98% |
| FY 2015-16 | 18.74% | 18.57% |

These projections have been prepared by Milliman and differ slightly from the projections prepared by the systems' actuaries due to differences in projection methodology.

Based on the above forecasts, the total SERS employer contribution rate will increase in FY 2012-13 by 15.50% of payroll (from 4.66% to 20.16%). The comparable increase for PSERS at the same time will be 16.26% of payroll (from 4.97% to 21.23%). It is not clear how the Commonwealth and other contributing employers will be able to afford to fund such a significant increase at that time.

To put these contribution rate increases into perspective, a 15.50% increase in the SERS employer contribution rate in FY 2005-6 would increase employer contributions to SERS by roughly $810 million; a 16.30% increase in the PSERS employer contribution rate in FY 2005-6 would increase employer contributions to PSERS by roughly $1,875 million. These increased contributions, totaling nearly $2.7 billion in today's dollars (which is over $7,000 per active member), can be expected to be even greater in FY 2012-13 and after due to forecast increases in covered payroll.

These significant contribution increases forecast for FY 2012-13 are attributable to the provision in current law that rapidly amortizes actuarial gains prior to the plan year ending in 2002 over 10 years ending FY 2011-12 and the slow amortization of the substantial additional actuarial liabilities created by Act 2001-9 and the subsequent actuarial losses.

## RECOMMENDATION

We recommend that, before consideration of possible benefit enhancements that will increase the long-term costs of SERS and PSERS, the Commonwealth develop a pattern of employer contributions on behalf of the current pension provisions that will:

- cover the full normal cost;
- amortize the existing unfunded actuarial accrued liabilities over a reasonable time-frame; and,
- produce increases in employer contributions that are expected to be affordable when they are scheduled to occur.

Both SERS and PSERS have to disclose in their Comprehensive Annual Financial Report (CAFR) an Annual Required Contribution (ARC) based on the minimum requirements regarding the amortization of the unfunded actuarial accrued liabilities (UAL) set forth in Governmental Accounting Standards Board (GASB) Statement No. 25 – *Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans* in the event that state law establishes a contribution that is lower. The SERS and PSERS employer contributions under current law will fall short of those minimum requirements through fiscal year 2011-12. Therefore we recommend that, at a minimum, the state consider developing a pattern of employer contributions will equal or exceed the GASB ARC minimum requirements.

Amortizing the UAL over a closed 30-year period as a level percentage of payroll would generate an ARC that would comply with the minimum requirements of GASB 25. (Level dollar amortization and/or shorter amortization periods would also comply with GASB 25 and could be implemented to pay down the UAL more quickly if the additional contributions were affordable. We will show level percentage of payroll amortization because it would produce the lowest ARC. Contributing more than this minimum ARC would be desirable, since it would reduce the interest charged on the UAL in the same way as higher mortgage payments reduce the cumulative cost of purchasing a house.)

As seen in the tables and graphs below, a GASB 25 ARC funding approach would result in larger contributions through FY 2011-12 and smaller contributions over the subsequent 20 years. Over the 30 year period during which the UAL is paid down, the GASB 25 ARC approach results in an estimated $3.4 billion less in cumulative employer contributions to SERS than would be required under current law. The comparable reduction in cumulative employer contributions to PSERS on this basis is estimated as $1.8 billion.



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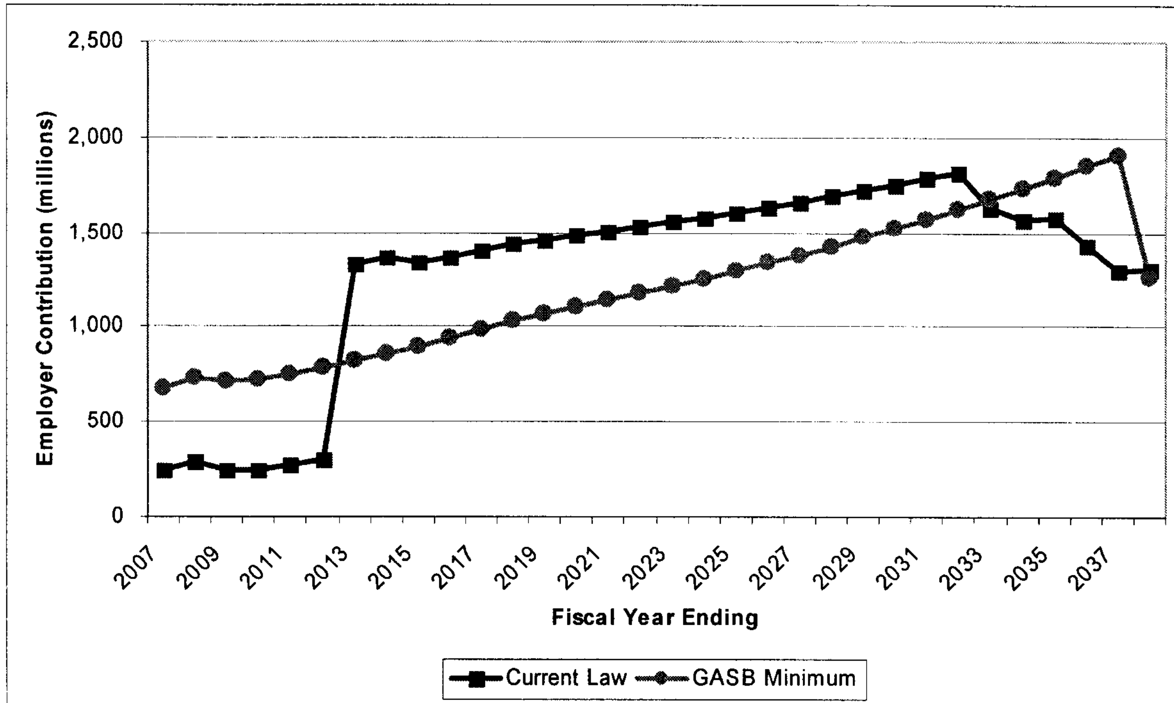
Comparison of SERS Contributions under Current Law and GASB 25 ARC Funding Approach

| Fiscal Year Ending | Current Law Employer Contributions $ | Current Law Employer Contributions % | GASB Minimum Employer Contributions $ | GASB Minimum Employer Contributions % | Increase/(Decrease) Employer Contributions $ | Increase/(Decrease) Employer Contributions % |
|---|---|---|---|---|---|---|
| 2007 | 243 | 4.66% | 671 | 12.88% | 428 | 8.22% |
| 2008 | 296 | 5.40% | 734 | 13.39% | 438 | 7.99% |
| 2009 | 248 | 4.35% | 712 | 12.49% | 464 | 8.14% |
| 2010 | 246 | 4.15% | 722 | 12.19% | 476 | 8.04% |
| 2011 | 270 | 4.39% | 751 | 12.23% | 481 | 7.84% |
| 2012 | 297 | 4.66% | 783 | 12.29% | 486 | 7.63% |
| 2013 | 1,330 | 20.16% | 817 | 12.39% | (513) | (7.77%) |
| 2014 | 1,369 | 20.05% | 855 | 12.52% | (514) | (7.53%) |
| 2015 | 1,340 | 18.97% | 896 | 12.67% | (444) | (6.30%) |
| 2016 | 1,371 | 18.74% | 939 | 12.83% | (432) | (5.91%) |
| 2017 | 1,406 | 18.59% | 984 | 13.01% | (422) | (5.58%) |
| 2018 | 1,441 | 18.44% | 1,031 | 13.20% | (410) | (5.24%) |
| 2019 | 1,463 | 18.12% | 1,065 | 13.20% | (398) | (4.92%) |
| 2020 | 1,485 | 17.81% | 1,100 | 13.20% | (385) | (4.61%) |
| 2021 | 1,508 | 17.51% | 1,137 | 13.20% | (371) | (4.31%) |
| 2022 | 1,532 | 17.22% | 1,174 | 13.20% | (358) | (4.02%) |
| 2023 | 1,557 | 16.94% | 1,213 | 13.20% | (344) | (3.74%) |
| 2024 | 1,583 | 16.67% | 1,253 | 13.20% | (330) | (3.47%) |
| 2025 | 1,609 | 16.41% | 1,294 | 13.20% | (315) | (3.21%) |
| 2026 | 1,636 | 16.15% | 1,337 | 13.20% | (299) | (2.95%) |
| 2027 | 1,665 | 15.91% | 1,381 | 13.20% | (284) | (2.71%) |
| 2028 | 1,694 | 15.67% | 1,427 | 13.20% | (267) | (2.47%) |
| 2029 | 1,724 | 15.44% | 1,474 | 13.20% | (250) | (2.24%) |
| 2030 | 1,755 | 15.21% | 1,522 | 13.20% | (233) | (2.01%) |
| 2031 | 1,787 | 15.00% | 1,573 | 13.20% | (214) | (1.80%) |
| 2032 | 1,820 | 14.79% | 1,625 | 13.20% | (195) | (1.59%) |
| 2033 | 1,632 | 12.83% | 1,678 | 13.20% | 46 | 0.37% |
| 2034 | 1,569 | 11.95% | 1,734 | 13.20% | 165 | 1.25% |
| 2035 | 1,574 | 11.60% | 1,791 | 13.20% | 217 | 1.60% |
| 2036 | 1,431 | 10.21% | 1,850 | 13.20% | 419 | 2.99% |
| Total | $38,881 | | $35,523 | | ($3,358) | |

*(dollar amounts in millions)*

Comparison of SERS Contributions under Current Law
and GASB 25 ARC Funding Approach




Note that the contribution rates under both methods quickly converge after the 30-year amortization period.

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Comparison of PSERS Contributions under Current Law and GASB 25 ARC Funding Approach

| Fiscal Year Ending | Current Law Employer Contributions $ | Current Law Employer Contributions % | GASB Minimum Employer Contributions $ | GASB Minimum Employer Contributions % | Increase/(Decrease) Employer Contributions $ | Increase/(Decrease) Employer Contributions % |
|---|---|---|---|---|---|---|
| 2007 | 629 | 5.72% | 1,397 | 12.21% | 768 | 6.49% |
| 2008 | 724 | 6.32% | 1,559 | 13.18% | 835 | 6.86% |
| 2009 | 707 | 6.01% | 1,591 | 13.07% | 884 | 7.06% |
| 2010 | 616 | 5.16% | 1,565 | 12.52% | 949 | 7.36% |
| 2011 | 603 | 4.92% | 1,585 | 12.32% | 982 | 7.40% |
| 2012 | 628 | 4.97% | 1,635 | 12.34% | 1,007 | 7.37% |
| 2013 | 2,936 | 21.23% | 1,691 | 12.38% | (1,245) | (8.85%) |
| 2014 | 2,894 | 20.31% | 1,754 | 12.43% | (1,140) | (7.88%) |
| 2015 | 2,791 | 18.98% | 1,823 | 12.51% | (968) | (6.47%) |
| 2016 | 2,826 | 18.57% | 1,898 | 12.56% | (928) | (6.01%) |
| 2017 | 2,866 | 18.17% | 1,978 | 12.62% | (888) | (5.55%) |
| 2018 | 2,911 | 17.77% | 2,064 | 12.67% | (847) | (5.10%) |
| 2019 | 2,963 | 17.40% | 2,155 | 12.71% | (808) | (4.69%) |
| 2020 | 3,009 | 16.95% | 2,247 | 12.71% | (762) | (4.24%) |
| 2021 | 3,056 | 16.52% | 2,342 | 12.71% | (714) | (3.81%) |
| 2022 | 3,106 | 16.11% | 2,442 | 12.71% | (664) | (3.40%) |
| 2023 | 3,158 | 15.72% | 2,545 | 12.71% | (613) | (3.01%) |
| 2024 | 3,213 | 15.34% | 2,654 | 12.71% | (559) | (2.63%) |
| 2025 | 3,269 | 14.98% | 2,766 | 12.71% | (503) | (2.27%) |
| 2026 | 3,328 | 14.64% | 2,884 | 12.71% | (444) | (1.93%) |
| 2027 | 3,390 | 14.30% | 3,007 | 12.71% | (383) | (1.59%) |
| 2028 | 3,454 | 13.99% | 3,134 | 12.71% | (320) | (1.28%) |
| 2029 | 3,521 | 13.68% | 3,268 | 12.71% | (253) | (0.97%) |
| 2030 | 3,590 | 13.39% | 3,406 | 12.71% | (184) | (0.68%) |
| 2031 | 3,663 | 13.10% | 3,551 | 12.71% | (112) | (0.39%) |
| 2032 | 3,738 | 12.83% | 3,702 | 12.71% | (36) | (0.12%) |
| 2033 | 3,149 | 10.41% | 3,860 | 12.71% | 711 | 2.30% |
| 2034 | 2,945 | 9.36% | 4,024 | 12.71% | 1,079 | 3.35% |
| 2035 | 2,705 | 8.27% | 4,195 | 12.71% | 1,490 | 4.44% |
| 2036 | 2,501 | 7.36% | 4,373 | 12.71% | 1,872 | 5.35% |
| Total | $78,889 | | $77,095 | | ($1,794) | |

*(dollar amounts in millions)*

For purposes of the table above, the Premium Assistance Program (see insurance description in following section) has been calculated on a modified term cost basis under both the current law and GASB minimum approaches. As discussed below, the GASB rules for retiree healthcare will change in FY 2006-7; this table does not reflect those new rules.

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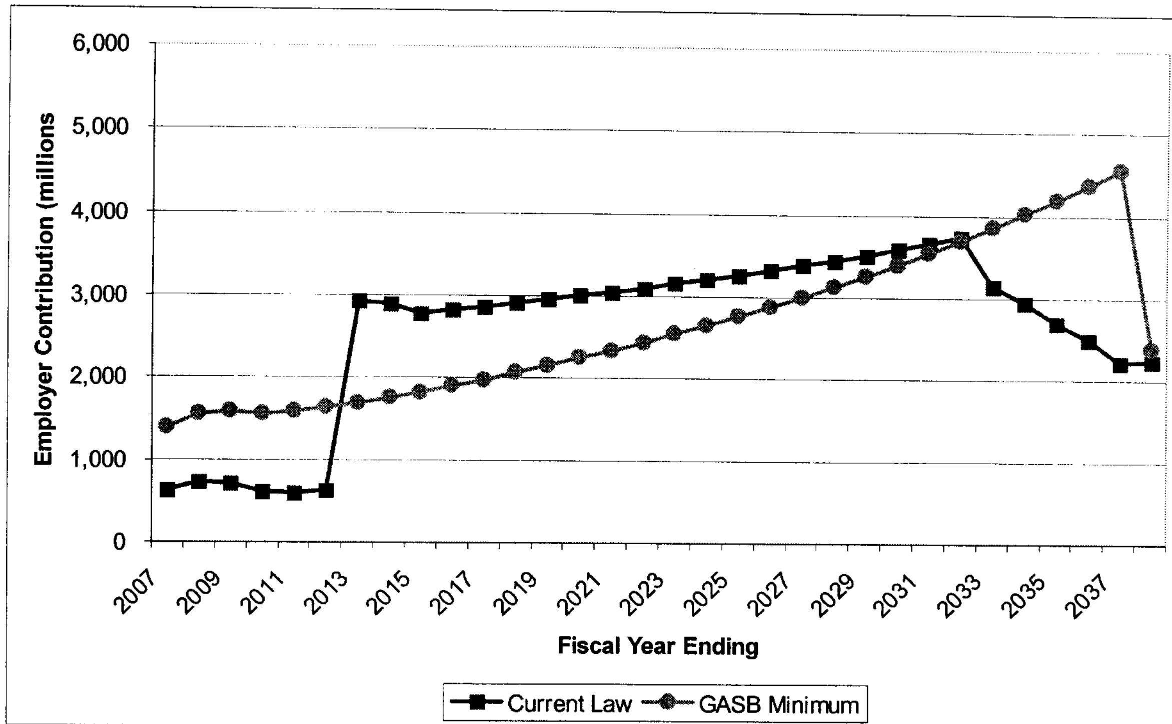
Comparison of PSERS Contributions under Current Law and GASB 25 ARC Funding Approach




It is worth noting that the Comprehensive Annual Financial Report (CAFR) of SERS and PSERS will each disclose the shortfall between (1) the actual employer contributions made and the (2) ARC under GASB accounting rules in the Schedule of Employer Contributions in the event that the employer contributions continue as set forth in current law through FY 2011-12. Such shortfalls may have an effect on the credit ratings of the Commonwealth and/or other covered employers.

# BACKGROUND ON FUNDING OF CURRENT INSURANCE BENEFITS

**Costs and Assets required for current insurance provisions**

*Post-employment Insurance Assets and Funded Status*

No assets have been accumulated to fund post-employment insurance benefits for members of SERS or PSERS.

State Employees

The Pennsylvania Employee Benefits Trust Fund (PEBTF) provides insurance benefits to retired members of SERS who retired from certain Commonwealth agencies. The insurance benefits provided to retirees by PEBTF are largely funded by the Commonwealth, but retirees and beneficiaries contribute roughly 4% of the total cost of the Annuitants Plan. The percentage paid by retirees and beneficiaries can be expected to grow as the proportion of the retiree population that retired after July 1, 2005 increases, since these retirees will contribute 1% of final base pay annually.

These benefits are funded on a term cost basis (the term cost refers to the benefits paid and administrative costs during the current year.)

The current eligibility requirements for Majority State-Paid coverage are (1) retirement at or after superannuation age with 15 or more years of credited service, (2) retirement at any age with 25 or more years of credited service, or (3) disability retirement. We also note that eligibility for the majority state-paid coverage will increase in 2008 from 15 years of service to 20 years of service. State Police members are eligible for Fully State-Paid coverage if they retire (1) at or after superannuation age (generally age 50), (2) with 20 or more years of credited service, or (3) under disability retirement.

Public School Employees

PSERS provides a Health Options Program (HOP) and Premium Assistance Program to PSERS retirees. These benefits are financed on a modified term cost basis, rather than based on the actuarial methods used to fund PSERS' pension-type benefits. HOP is funded by the following sources: 1) premiums paid by participating retired members, and 2) employer contributions to fund the premium assistance program (these contributions are built into the PSERS contribution rate and equal 0.74% of payroll for Fiscal Year 2006-7). Premium assistance (currently $100 a month) is available to eligible PSERS retirees who enroll in HOP or who have an out-of-pocket expense for their district health plan.

To be eligible, a retired member must have 24.5 years of service, 15 years of service with termination on or after age 62, or be receiving a disability retirement benefit from PSERS.



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## BACKGROUND ON FUNDING OF CURRENT INSURANCE BENEFITS

*Annual Post-employment Insurance Cost*

SERS Retirees

Under current accounting rules, the annual cost of the post-employment insurance benefits provided to SERS retirees under PEBTF is the annual employer contribution to cover the current cost of health insurance benefits. This is referred to as pay-as-you-go funding. No "pension-style" advance funding has occurred for these benefits on an actuarial basis. The annual pay-as-you-go costs of these benefits under PEBTF are summarized below.

Net Cost of benefits provided by PEBTF to Retirees and Beneficiaries

| | FY 2004-5 | FY 2003-4 |
|---|---|---|
| Medical Benefits | $458.6 million | $393.3 million |
| Contracted Services + Administrative Costs | 29.6 million | 26.8 million |
| Total | $488.2 million | 420.1 million |
| Contributions from retirees and spouses | 20.0 million | 19.1 million |
| Net Cost | $468.2 million | $401.0 million |

We do not have data regarding the cost of the health insurance benefits, if any, provided to SERS retirees covered by health insurance plans other than PEBTF. Based on the retiree data provided to us, we have summarized counts of the number of active and retired SERS members potentially eligible for PEBTF coverage below.

| | Eligible for PEBTF | | Not eligible for PEBTF | | Total | |
|---|---|---|---|---|---|---|
| | Count | % | Count | % | Count | % |
| Active Members | 93,200 | 86 | 15,205 | 14 | 108,405 | 100 |
| Retirees | 75,862 | 84 | 14,007 | 16 | 89,869 | 100 |
| Total | 169,062 | 85 | 29,212 | 15 | 198,274 | 100 |

Based on the above data, the net cost of the benefits provided to PEBTF retirees and beneficiaries may represent roughly 84% of the total current cost OPEB benefits to all SERS retirees, assuming that retired SERS members ineligible for PEBTF are eligible for insurance benefits comparable to the benefits provided by PEBTF.

PSERS Retirees

With respect to the insurance provided to retired members of PSERS, the annual cost of the Premium Assistance Program is the employer contribution rate set annually by PSERS to fund the current cost of that premium assistance. (As noted above, this rate will be 0.74% for FY 2006-7.) The remainder of HOP's costs is funded by contributions from participating retirees and beneficiaries.

The current cost of the Premium Assistance Program
provided to retired members of PSERS

| | FY 2006-7 | FY 2005-6 | FY 2004-5 |
|---|---|---|---|
| Health Insurance Rate | 0.74% | 0.69% | 0.23% |
| Estimated Payroll* | $11.8 billion | $11.5 billion | $11.1 billion |
| Contributions | $86 million | $79 million | $25 million |

* from PSERS actuarial valuation reports

The annual cost of additional insurance benefits provided by the former employer of the retired member pursuant to (a) Act 110 (1998) and Act 43 (1989), or (b) a collective bargaining agreement, if any, is the current cost of premiums paid by the employer. We do not have data regarding those costs state-wide.

New GASB Accounting Rules

In 2004, the Governmental Accounting Standards Board (GASB) issued new accounting rules for public employers and public employee benefit plans regarding postemployment benefits, such as retiree health insurance. These new rules become effective for benefit plans covering employees of very large employers, such as the Commonwealth,

- for the fiscal year beginning after December 31, 2005 for the benefit plan's financial statements, (GASB Statement No. 43) and
- for the fiscal year beginning after December 31, 2006 for the employer's financial statements (GASB Statement No. 45).

Thus these new accounting rules will become effective for PEBTF and PSERS for their 2006-7 fiscal years and for the Commonwealth for the 2007-8 fiscal year.

Generally, these standards require benefit plans and employers to *disclose* the cost of other postemployment benefits (OPEB), such as health insurance, on an actuarial basis. (Pensions have been traditionally funded on an actuarial basis, which is sometimes referred to as an advance funding basis. But OPEB benefits to retirees, such as health insurance benefits, usually have not been funded on this basis. Rather, they have typically been funded on a pay-as-you-go or term cost basis. As noted above, both PEBTF and PSERS use this basis.)

These accounting standards do not require that employers begin to *fund* OPEB benefits on an actuarial basis, but they do require employers to *report* costs in their financial statements on an actuarial basis. Since PSERS is a cost-sharing, multiple-employer plan, each participating employer will continue to accrue costs in its financial statement based on the amount it contributes to the PSERS Premium Assistance Program. An Annual Required Contribution (ARC) will be calculated on an actuarial basis and disclosed in the PSERS Comprehensive Annual Financial Report (CAFR) along with the actual amount contributed.

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It is not clear to us whether PEBTF is also a cost-sharing multiple-employer plan because one outside group with 25 employees participates in it. If it is a cost-sharing, multiple-employer plan, accounting for employer contributions will be made on the same basis as described above for PSERS. But if PEBTF is not a cost-sharing multiple-employer plan, the Commonwealth will have to disclose in its financial statements commencing with FY 2007-8 the cost of benefits provided by PEBTF on an actuarial basis. In addition, if the Commonwealth contributes to other plans providing OPEB benefits that are not cost-sharing multiple-employer plans, the Commonwealth would also have to accrue costs for those OPEB benefits on an actuarial basis in its financial statements.

We have prepared a rough, preliminary estimate of the actuarial cost of the OPEB benefits provided by PEBTF and PSERS' Premium Assistance Program in order to provide the Legislative Budget & Finance Committee with an order-of-magnitude estimate of the possible effect of these new accounting rules on the Commonwealth and/or PEBTF and PSERS financial statements. We did so in order to place into context the incremental accounting costs of insurance benefits that would be generated if an early retirement incentive, such as set forth in House Bill 130, were enacted. ***Due to the limited scope of this assignment, the estimate shown below should be considered very rough and very preliminary and subject to possible significant changes.***

The estimated total annual cost of OPEB benefits provided by PEBTF and PSERS' Premium Assistance Program under current accounting rules are compared with the estimated ARC under the new GASB accounting rules in the table below. This excludes the cost of OPEB benefits provided to SERS retirees by plans other than PEBTF and by school districts to retired PSERS members pursuant to (a) Act 110 (1998) and Act 43 (1989), or (b) a collective bargaining agreement, if any. (Comprehensive data for SERS retirees ineligible for PEBTF and all Pennsylvania school districts is not available.) Also, we have assumed that the current Premium Assistance monthly amount of $100 will not increase in future years. The program has been in place since July 1, 1992, with an original monthly amount of the lesser of $55 or actual expense. Act 9 of 2001 increased the reimbursement to the lesser of $100 or actual expense. Increases in the Premium Assistance amount could result in a significantly larger ARC.

| | PEBTF | PSERS Premium Assistance |
|---|---|---|
| Estimated FY 2006-7 cost (current rules) | $595 million | $90 million |
| Estimated FY 2006-7 ARC (new rules) | $1,180 million | $95 million |
| Increase in $'s | $585 million | $5 million |
| % Increase | 98% | 6% |

As noted above, large public employers with July-June fiscal years, such as the Commonwealth, will need to begin to recognize the ARC as the cost of these benefits during the fiscal year beginning July 1, 2007 unless these benefits are provided to

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retirees by participation in a cost-sharing multiple-employer plan. When this is the case, the cost-sharing multiple-employer plan will report the ARC and the actuarial liabilities of the benefits in its financial statements. (This effective date is delayed one or two years for smaller employers, such as local school districts.)



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# SUMMARY ON FUNDING OF CURRENT PENSION AND INSURANCE BENEFITS

## SUMMARY ON FUNDING OF CURRENT PENSION AND INSURANCE BENEFITS

We have summarized below the total current and projected contributions to the major state-wide pension and insurance programs covering state employees and public school employees. These state-wide programs are SERS, PSERS and PEBTF. Since the contributions scheduled under current law fall short of the Annual Required Contributions (ARC) under Governmental Accounting Standards Board rules until FY 2012-13, we have summarized those contributions and the GASB ARC's in the following tables.

Summary of projected contributions and GASB ARC's
for State Employees
attributable to SERS and PEBTF
($ amounts in millions; %'s are relative to payroll)

| Fiscal Year | CONTRIBUTIONS | | | | | | GASB ARC | | | | | | GASB ARC minus CONTRIBUTION | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | SERS | | PEBTF | | TOTAL | | SERS | | PEBTF | | TOTAL | | | |
| Ending | $ | % | $ | % | $ | % | $ | % | $ | % | $ | % | $ | % |
| 2007 | 243 | 4.66% | 595 | 13.47% | 838 | 18.13% | 671 | 12.88% | 1,180 | 26.70% | 1,851 | 39.58% | 1,013 | 21.45% |
| 2008 | 296 | 5.40% | 666 | 14.35% | 962 | 19.75% | 734 | 13.39% | 1,237 | 26.65% | 1,971 | 40.04% | 1,009 | 20.29% |
| 2009 | 248 | 4.35% | 740 | 15.32% | 988 | 19.67% | 712 | 12.49% | 1,309 | 27.10% | 2,021 | 39.59% | 1,033 | 19.92% |
| 2010 | 246 | 4.15% | 819 | 16.33% | 1,065 | 20.48% | 722 | 12.19% | 1,383 | 27.56% | 2,105 | 39.75% | 1,040 | 19.27% |
| 2011 | 270 | 4.39% | 905 | 17.39% | 1,175 | 21.78% | 751 | 12.23% | 1,459 | 28.02% | 2,210 | 40.25% | 1,035 | 18.47% |
| 2012 | 297 | 4.66% | 988 | 18.30% | 1,285 | 22.96% | 783 | 12.29% | 1,538 | 28.49% | 2,321 | 40.78% | 1,036 | 17.82% |
| 2013 | 1,330 | 20.16% | 1,058 | 18.92% | 2,388 | 39.08% | 817 | 12.39% | 1,619 | 28.96% | 2,436 | 41.35% | 48 | 2.27% |
| 2014 | 1,369 | 20.05% | 1,119 | 19.34% | 2,488 | 39.39% | 855 | 12.52% | 1,704 | 29.44% | 2,559 | 41.96% | 71 | 2.57% |
| 2015 | 1,340 | 18.97% | 1,177 | 19.65% | 2,517 | 38.62% | 896 | 12.67% | 1,793 | 29.93% | 2,689 | 42.60% | 172 | 3.98% |
| 2016 | 1,371 | 18.74% | 1,233 | 19.88% | 2,604 | 38.62% | 939 | 12.83% | 1,888 | 30.46% | 2,827 | 43.29% | 223 | 4.67% |

The above figures do not include any insurance benefits provided to retired State Employees who are not eligible for PEBTF. Based on the percentage of State Employees ineligible for PEBTF, this may exclude the insurance costs for 14% to 16% of current State employees and retirees.

# SUMMARY ON FUNDING OF CURRENT PENSION AND INSURANCE BENEFITS

Summary of projected contributions and GASB ARC's
for Public School Employees
attributable to PSERS
($ amounts in millions; %'s are relative to payroll)

| Fiscal Year Ending | CONTRIBUTIONS | | | | | | GASB ARC | | | | | | GASB ARC minus CONTRIBUTION | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | PSERS pension | | Premium Assistance | | TOTAL | | PSERS pension | | Premium Assistance | | TOTAL | | | |
| | $ | % | $ | % | $ | % | $ | % | $ | % | $ | % | $ | % |
| 2007 | 629 | 5.72% | 90 | 0.74% | 719 | 6.46% | 1,397 | 12.21% | 95 | 0.80% | 1,492 | 13.01% | 773 | 6.55% |
| 2008 | 724 | 6.32% | 92 | 0.76% | 816 | 7.08% | 1,559 | 13.18% | 100 | 0.82% | 1,659 | 14.00% | 843 | 6.92% |
| 2009 | 707 | 6.01% | 94 | 0.76% | 801 | 6.77% | 1,591 | 13.07% | 104 | 0.83% | 1,695 | 13.90% | 894 | 7.13% |
| 2010 | 616 | 5.16% | 97 | 0.75% | 713 | 5.91% | 1,565 | 12.52% | 107 | 0.83% | 1,672 | 13.35% | 959 | 7.44% |
| 2011 | 603 | 4.92% | 100 | 0.75% | 703 | 5.67% | 1,585 | 12.32% | 111 | 0.84% | 1,696 | 13.16% | 993 | 7.49% |
| 2012 | 628 | 4.97% | 102 | 0.74% | 730 | 5.71% | 1,635 | 12.34% | 115 | 0.84% | 1,750 | 13.18% | 1,020 | 7.47% |
| 2013 | 2,936 | 21.23% | 103 | 0.74% | 3,039 | 21.97% | 1,691 | 12.38% | 119 | 0.85% | 1,810 | 13.23% | (1,229) | -8.74% |
| 2014 | 2,894 | 20.31% | 106 | 0.73% | 3,000 | 21.04% | 1,754 | 12.43% | 123 | 0.85% | 1,877 | 13.28% | (1,123) | -7.76% |
| 2015 | 2,791 | 18.98% | 106 | 0.71% | 2,897 | 19.69% | 1,823 | 12.51% | 128 | 0.86% | 1,951 | 13.37% | (946) | -6.32% |
| 2016 | 2,826 | 18.57% | 108 | 0.70% | 2,934 | 19.27% | 1,898 | 12.56% | 133 | 0.86% | 2,031 | 13.42% | (903) | -5.85% |

The above figures do not include the cost of insurance benefits provided to retired public school employees pursuant to (a) Act 110 (1998) and Act 43 (1989), or (b) a collective bargaining agreement, if any.

# HR 299 QUESTION I

# COST TO FUND INITIATIVES

# I. COST TO FUND INITIATIVES – HOUSE BILL 130

**Summary of House Bill 130**

HB 130 would allow members of SERS and PSERS to retire and receive (1) an annuity without reduction and (2) any insurance coverage under a contract affecting the member in the event that the member has not yet attained superannuation eligibility provided that the member has:

- completed 30 years of service, or
- the sum of the member's age and years of service totals 80 or more years.

These special early retirement incentive programs (ERIPs) would be available to members of SERS who retire from July 1, 2006 through June 30, 2008 and to members of PSERS who apply for retirement during March 1 through June 1 in either 2006 or 2007, with an effective date of retirement not later than July 1 of that year. The incentive under HB 130 would apply to:

- SERS and PSERS members under age 50 with between 30 and 35 years of service;
- SERS and PSERS members between age 50 and 60 for whom the sum of their age and service totals 80 or more years but who have completed less than 35 years of service (e.g., a member age 50 with 30 years of service or a member age 59 with 21 years of service); and,
- PSERS members age 60 who have completed between 20 and 30 years of service or age 61 with between 19 and 30 years of service (under current law, SERS members can retire at age 60 or later provided they have completed 3 years of service.)

The insurance coverage mentioned in the Bill refers to the insurance coverage a SERS member would be eligible to receive from their employer or the Commonwealth if he or she had satisfied the requirements for superannuation retirement at the time of retirement. With respect to PSERS members, the insurance coverage refers to the coverage provided by the member's employer pursuant to Act 110 (1998) and Act 43 (1989), by the PSERS Health Options Program and the Premium Assistance Program, or pursuant to a collective bargaining agreement, if any.

**Summary of Cost to Fund Initiative**

The net cost to fund an ERIP initiative will comprise several factors:

- Salary savings due to the replacement of older, long service employees with younger, lower seniority employees;
- Additional contributions to the retirement systems – SERS and PSERS; and,
- Additional contributions to retiree health insurance – PEBTF, Premium Assistance Program and local School District obligations due to Act 110 and 43 or collective bargaining agreements.

Moreover, retiree healthcare costs have traditionally been measured based on the contributions required to fund the benefits in each fiscal year. But with the adoption of Governmental Accounting Standards Board (GASB) Statements No. 43 *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans* and 45 *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*, it is necessary to also consider "costs" based on those accounting rules, similar to the treatment of pension "costs" under GASB Statements No. 25 *Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans* and 27 *Accounting for Pensions by State and Local Governmental Employers.* We have summarized both the additional cash costs as well as the accounting costs of funding an ERIP initiative on the following pages.

**Net Incremental Actuarial Liabilities due to HB 130 ERIP (1)**

($ Amounts in Billions)

**State Employees – estimated December 31, 2006 results**

| | SERS | PEBTF | Total |
|---|---|---|---|
| Actuarial Liabilities under current provisions | $31.5 | $15.6 | $47.1 |
| Actuarial Liabilities with ERIP | 31.8 | 16.1 | 47.9 |
| Net Incremental Actuarial Liabilities due to ERIP | 0.3 | 0.5 | 0.8 |
| Funded Ratio with ERIP | 86% | n/a | n/a |
| Amortization of Incremental Liabilities over 5 years (2) | 0.1 | 0.1 | 0.2 |

**Public School Employees Retirement System – estimated June 30, 2006 results**

| | Pensions | Premium Assistance | Total |
|---|---|---|---|
| Actuarial Liabilities under current provisions | $63.8 | $1.6 | $65.4 |
| Actuarial Liabilities with ERIP | 64.8 | 1.6 | 66.4 |
| Net Incremental Actuarial Liabilities due to ERIP | 1.0 | 0.0* | 1.0 |
| Funded Ratio with ERIP | 80% | n/a | n/a |
| Amortization of Incremental Liabilities over 5 years (2) | 0.3 | 0.0* | 0.3 |

* 0.0 shown due to rounding. Actual result is $30 million increase and $8 million amortization.

(1) These are the actuarial liabilities under GASB Statements Nos. 25, 27, 43 and 45. For SERS and PSERS, they also are the actuarial liabilities based on the actuarial procedures utilized to calculate contributions.

(2) A longer amortization period would be permissible under GASB Statements Nos. 25, 27, 43 and 45. We have used 5 years to assign the costs of the ERIP to the time periods when the majority of the payroll savings due to the ERIP would be realized.

***We want to reiterate the need to develop a long-term affordable contribution schedule to finance the current SERS and PSERS benefits before adding additional costs through legislation to improve benefits as discussed below.***

**Net Incremental Cash Contribution and GASB ARC Projections due to ERIP State Employees**

*($ in millions)*

| FY Ending | Payroll | | | SERS | | | PEBTF [1] | | | TOTAL | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | w/o ERIP | Inc. due to ERIP | with ERIP | w/o ERIP | Inc. due to ERIP | with ERIP | w/o ERIP | Inc. due to ERIP | with ERIP | w/o ERIP | Inc. due to ERIP | with ERIP |
| **Cash Contributions** | | | | | | | | | | | | |
| 2007 | 5,478 | (30) | 5,448 | 243 | 0 | 243 | 700 | 28 | 728 | 6,421 | (2) | 6,419 |
| 2008 | 5,699 | (90) | 5,609 | 296 | 82 | 378 | 783 | 61 | 844 | 6,778 | 53 | 6,831 |
| 2009 | 5,921 | (108) | 5,813 | 248 | 82 | 330 | 870 | 80 | 950 | 7,039 | 54 | 7,093 |
| 2010 | 6,143 | (99) | 6,044 | 246 | 82 | 328 | 963 | 80 | 1,043 | 7,352 | 63 | 7,415 |
| 2011 | 6,369 | (87) | 6,282 | 270 | 82 | 352 | 1,065 | 70 | 1,135 | 7,704 | 65 | 7,769 |
| 2012 | 6,596 | (73) | 6,523 | 297 | 83 | 380 | 1,161 | 60 | 1,221 | 8,054 | 70 | 8,124 |
| 2013 | 6,828 | (58) | 6,770 | 1,330 | (2) | 1,328 | 1,244 | 49 | 1,293 | 9,402 | (11) | 9,391 |
| 2014 | 7,068 | (43) | 7,025 | 1,369 | (4) | 1,365 | 1,316 | 38 | 1,354 | 9,753 | (9) | 9,744 |
| 2015 | 7,315 | (28) | 7,287 | 1,340 | (2) | 1,338 | 1,384 | 29 | 1,413 | 10,039 | (1) | 10,038 |
| 2016 | 7,562 | (15) | 7,547 | 1,371 | (1) | 1,370 | 1,450 | 20 | 1,470 | 10,383 | 4 | 10,387 |
| Total | 64,979 | (631) | 64,348 | 7,010 | 402 | 7,412 | 10,936 | 515 | 11,451 | 82,925 | 286 | 83,211 |
| **GASB ARC** | | | | | | | | | | | | |
| 2007 | 5,478 | (30) | 5,448 | 671 | 0 | 671 | N/A | N/A | N/A | 6,149 | (30) | 6,119 |
| 2008 | 5,699 | (90) | 5,609 | 734 | 83 | 817 | 1,455 | 140 | 1,595 | 7,888 | 133 | 8,021 |
| 2009 | 5,921 | (108) | 5,813 | 712 | 80 | 792 | 1,539 | 136 | 1,675 | 8,172 | 108 | 8,280 |
| 2010 | 6,143 | (99) | 6,044 | 722 | 80 | 802 | 1,626 | 137 | 1,763 | 8,491 | 118 | 8,609 |
| 2011 | 6,369 | (87) | 6,282 | 751 | 81 | 832 | 1,716 | 140 | 1,856 | 8,836 | 134 | 8,970 |
| 2012 | 6,596 | (73) | 6,523 | 783 | 81 | 864 | 1,808 | 146 | 1,954 | 9,187 | 154 | 9,341 |
| 2013 | 6,828 | (58) | 6,770 | 817 | (2) | 815 | 1,904 | 8 | 1,912 | 9,549 | (52) | 9,497 |
| 2014 | 7,068 | (43) | 7,025 | 855 | (4) | 851 | 2,003 | 9 | 2,012 | 9,926 | (38) | 9,888 |
| 2015 | 7,315 | (28) | 7,287 | 896 | (3) | 893 | 2,109 | 8 | 2,117 | 10,320 | (23) | 10,297 |
| 2016 | 7,562 | (15) | 7,547 | 939 | (1) | 938 | 2,221 | 9 | 2,230 | 10,722 | (7) | 10,715 |
| Total | 64,979 | (631) | 64,348 | 7,880 | 395 | 8,275 | 16,381 | 733 | 17,114 | 89,240 | 497 | 89,737 |

(1) We have increased the PEBTF costs by 17.6% to reflect the fact that PEBTF covers only 85% of SERS members (117.6% X 85% = 100%.) This assumes that the remaining members have health insurance benefits similar to those provided by PEBTF.

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## Net Incremental Cash Contribution and GASB ARC Projections due to ERIP Public School Employees

*($ in millions)*

| FY Ending | Payroll | | | PSERS (incl. Prem. Asst.) | | | Act 110/Act 43 Estimate [1] | | | TOTAL | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | w/o ERIP | Inc. due to ERIP | with ERIP | w/o ERIP | Inc. due to ERIP | with ERIP | w/o ERIP | Inc. due to ERIP | with ERIP | w/o ERIP | Inc. due to ERIP | with ERIP |
| **Cash Contributions** | | | | | | | | | | | | |
| 2007 | 11,158 | (212) | 10,946 | 719 | 0 | 719 | 22 | 4 | 26 | 11,899 | (208) | 11,691 |
| 2008 | 11,482 | (403) | 11,079 | 816 | 247 | 1,063 | 27 | 8 | 35 | 12,325 | (148) | 12,177 |
| 2009 | 11,810 | (363) | 11,447 | 801 | 276 | 1,077 | 33 | 9 | 42 | 12,644 | (78) | 12,566 |
| 2010 | 12,152 | (312) | 11,840 | 713 | 277 | 990 | 39 | 10 | 49 | 12,904 | (25) | 12,879 |
| 2011 | 12,511 | (254) | 12,257 | 703 | 279 | 982 | 47 | 9 | 56 | 13,261 | 34 | 13,295 |
| 2012 | 12,896 | (193) | 12,703 | 730 | 280 | 1,010 | 54 | 8 | 62 | 13,680 | 95 | 13,775 |
| 2013 | 13,310 | (135) | 13,175 | 3,039 | 17 | 3,056 | 59 | 7 | 66 | 16,408 | (111) | 16,297 |
| 2014 | 13,760 | (83) | 13,677 | 3,000 | 18 | 3,018 | 62 | 6 | 68 | 16,822 | (59) | 16,763 |
| 2015 | 14,249 | (41) | 14,208 | 2,897 | 20 | 2,917 | 64 | 4 | 68 | 17,210 | (17) | 17,193 |
| 2016 | 14,779 | (10) | 14,769 | 2,934 | 21 | 2,955 | 64 | 3 | 67 | 17,777 | 14 | 17,791 |
| Total | 128,107 | (2,006) | 126,101 | 16,352 | 1,435 | 17,787 | 471 | 68 | 539 | 144,930 | (503) | 144,427 |
| **GASB ARC** | | | | | | | | | | | | |
| 2007 | 11,158 | (212) | 10,946 | 1,492 | 0 | 1,492 | N/A | N/A | N/A | 12,650 | (212) | 12,438 |
| 2008 | 11,482 | (403) | 11,079 | 1,659 | 245 | 1,904 | N/A | N/A | N/A | 13,141 | (158) | 12,983 |
| 2009 | 11,810 | (363) | 11,447 | 1,695 | 267 | 1,962 | 69 | 18 | 87 | 13,574 | (78) | 13,496 |
| 2010 | 12,152 | (312) | 11,840 | 1,672 | 273 | 1,945 | 72 | 18 | 90 | 13,896 | (21) | 13,875 |
| 2011 | 12,511 | (254) | 12,257 | 1,696 | 277 | 1,973 | 76 | 18 | 94 | 14,283 | 41 | 14,324 |
| 2012 | 12,896 | (193) | 12,703 | 1,750 | 281 | 2,031 | 81 | 18 | 99 | 14,727 | 106 | 14,833 |
| 2013 | 13,310 | (135) | 13,175 | 1,810 | 13 | 1,823 | 85 | 18 | 103 | 15,205 | (104) | 15,101 |
| 2014 | 13,760 | (83) | 13,677 | 1,877 | 17 | 1,894 | 89 | 1 | 90 | 15,726 | (65) | 15,661 |
| 2015 | 14,249 | (41) | 14,208 | 1,951 | 20 | 1,971 | 94 | 1 | 95 | 16,294 | (20) | 16,274 |
| 2016 | 14,779 | (10) | 14,769 | 2,031 | 23 | 2,054 | 99 | 1 | 100 | 16,909 | 14 | 16,923 |
| Total | 128,107 | (2,006) | 126,101 | 17,633 | 1,416 | 19,049 | 665 | 93 | 758 | 146,405 | (497) | 145,908 |

(1) This analysis is a **very rough** estimate of the cumulative statewide impact on local school districts reflecting pay-as-you-go-costs (top) and actuarial liabilities under GASB 45 (bottom) based on the mandated benefits of Act 110/Act 43. Please see next page for more detail.



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# I. Cost to Fund Initiatives – House Bill 130

The exhibits on the two preceding pages indicate that the ERIP would have an estimated net cost for SERS members but would generate net savings for PSERS members. (For this purpose, the net cost (savings) is the difference between the payroll savings and the additional cost of the pension and health insurance benefits.) The proposed ERIP is estimated to have a net cost for SERS members but produce net savings for PSERS members for the following reasons.

1. The health insurance benefits provided to SERS retirees are much more generous than the health insurance benefits provided to the average PSERS retiree. Some school districts provide benefits comparable to those provided to SERS retirees, but many others provide only the option for PSERS retirees to "buy-into" the health insurance plan provided to active members. In these latter situations, the PSERS retiree is required to pay 100% of the average premium for the insurance (see discussion of the "implicit rate subsidy" below.) Thus the estimated additional cost of providing health insurance to PSERS members who would retire under the proposed ERIP is significantly less than the cost of the health insurance provided to SERS retirees.
2. A higher portion of the SERS members eligible for the ERIP are within a year of superannuation age. At that point, past experience indicates that the rate of ERIP election is somewhat lower than for members 3 or more years short of superannuation eligibility. As a result, a lower percentage of SERS members eligible for the ERIP are expected to retire than the percentage of eligible PSERS members.
3. HB 130 would require eligible PSERS members to retire immediately prior to July 2006 or July 2007, but would allow SERS members to retire at any time between July 2006 and July 2008. Thus the payroll savings generated by PSERS members who retire prior to July 2006 (due to the lower salary of replacement employees) would apply for the entire FY 2006-7. For SERS members assumed to retire during the first year of the ERIP, it was assumed that they would retire on average in the middle of the fiscal year, thereby generating only one-half of a year of salary savings during FY 2006-7. Similarly, the payroll savings in FY 2007-8 for PSERS members is proportionately higher than for SERS members.

**Estimate of Total GASB 45 Liability of all Pennsylvania School Districts due to Act 110/Act 43**

*Minimum Mandated Retiree Healthcare Benefits*

Under state law, PSERS members who reach superannuation or retire with 30 years of service or on disability can continue to participate in their district's healthcare plan until age 65 by paying 102% of the active healthcare premium rate. While many districts provide additional retiree healthcare benefits, in the table on the preceding page we have attempted to place a very rough order of magnitude estimate on the cumulative impact of Act 110/Act 43 on a statewide basis by valuing the portion of each district's liability solely due to the minimum statutorily mandated benefit. In Section 6 we



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investigate the potential increase in costs for districts that offer benefits in excess of the minimum.

The net incremental cash contribution reflects the annual value of the "implicit rate subsidy" (defined below), and the net incremental GASB ARC reflects the actuarial cost of this subsidy that school districts will need to recognize due to GASB 45. We have not shown GASB ARCs for the 2006-7 and 2007-8 fiscal years as GASB 45 will not become effective until July 1, 2008 for the vast majority of districts in the state.

*Implicit Rate Subsidy*

While the group premium rate is based on the expected overall costs of all participating employees and retirees, costs per individual vary greatly by age and gender. The following explanation of "implicit rate subsidy" is taken from the July 2005 Moody's Investors Service Special Comment on OPEB:

> "A government's retirees in many cases are able to purchase health insurance at the same premium rate as current employees, based on a blending of premium rates that would apply to the two groups independently. The cost per participant of covering both groups together is higher than current employee coverage would be on its own, and not as high as the cost per participant in a group consisting solely of retirees. Because of this arrangement, retirees with blended rate health benefits are said to receive implicit rate subsidies. The new standards require measurement and reporting of the rate subsidy of retirees, even in situations where the retirees are required to pay 100% of their stated premiums."

As a simplified example – a district with one 30-year old teacher with expected costs of $1,000 and one 60-year old retiree with expected costs of $5,000 would have a total expected cost of $6,000, and a blended premium rate of $3,000. GASB 45 requires recognition of the cost of an implicit rate subsidy of $2,000 (true cost of $5,000 less the retiree contribution of $3,000). This implicit rate subsidy is then projected to increase in future years with healthcare inflation.

**Assumptions used to estimate the cost/(savings) due to an ERIP**

*Election rates*

As discussed in Section II – Past Impact of Early Retirement Incentives, the Commonwealth offered 30 & out ERIPs almost continuously from 1985 through 1997. The percentage of eligible members electing to retire under those incentives varied significantly, with the highest election rates occurring during the first and last years when those ERIPs were offered, that is from July 1985 through June 1986 and from July 1996 through 1997. We believe that the experience during those two years are most indicative of the level of elections that could be reasonably expected if an ERIP such as that described in HB 130 were enacted, because higher election rates are typically seen during windows that have both fixed starting and stopping dates. The

1985-86 ERIP had a fixed closing date of June 30, 1986. The next ERIP was not enacted until July, 1986; shortly after the 1985-86 ERIP closed. Therefore we believe that eligible members who were interested in retiring early would have made sure that they filed their application to retire by the June 30 closing date. This probably explains the high number of members who retired during the first year of this ERIP as compared to later years. (In subsequent ERIPs, with the exception of the Mellow Bill, the number of eligible members who elected to retire decreased significantly during periods when the "window" was scheduled to remain open for an extended period, but increased as the closing date approached.)

While SERS was unable to provide data that would have enabled us to develop ERIP election rates during the past reflecting the members age (we knew the ages of those who actually retired under the ERIP, but did not have sufficient data to determine precisely the number eligible for the ERIP), we were able to obtain such data from PSERS. So we based the election assumptions used for both SERS and PSERS on the PSERS data. The total PSERS election rates appeared to be similar to the total election rates in SERS, so we believe that this is a reasonable approach.

Based on data regarding the eligible members who retired under these ERIPs provided to us by SERS and PSERS, we developed the following election rates as being reasonable estimates of an ERIP that will be open for a relatively brief (i.e., two years) period such as HB 130. The election rates based on past actual ERIPs have been only increased modestly to reflect the estimated impact of the 25% increase in benefits provided by SERS and PSERS subsequent to the closing of the 1996-7 ERIP. It is possible that even higher election rates may occur if HB 130 were enacted. If so, the actual cost of these ERIPs will exceed the estimated costs shown in this report.

ERIP Election Rates used to Estimate the Cost to Fund Initiative
for both SERS and PSERS

| Age at first eligibility for ERIP | Prior to 30 years of service (for "rule of 80" elections) | 30 or more years of service |
|---|---|---|
| Under 52 | 30% | 30% |
| 52 through 57 | 30 | 60 |
| Over 57 | 30 | 30 |

Differences between our projections and actual costs will depend on the extent to which future experience conforms to the above assumptions made for this analysis. ***It is certain that actual experience will not conform exactly to the above assumptions used in this analysis. Actual costs will differ from projected costs to the extent that actual experience deviates from expected experience.***

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*Replacement rates*

One of the key factors in determining the cost or savings under an ERIP is the number of members who retire under the ERIP and then are replaced by a new hire. Obviously the maximum savings would occur if none of the members who retire under the ERIP are replaced. This can rarely be achieved under broad-based ERIPs in large public retirement systems, because many of the employees who retire serve in key positions that must be filled in order to continue to provide necessary public services.

We tried to estimate the extent to which members who would retire under an ERIP such as HB 130 would be replaced by:

1. utilizing projections of state population prepared by the U.S. Census Bureau (we assumed that the number of state employees would grow or decline in proportion to the projected growth or decline in the state's population); and,
2. utilizing projections of Commonwealth public school enrollments prepared by the Pennsylvania Department of Education to estimate the extent to which teachers and other employees in public schools could be expected to increase or decrease over the next 10 years (we assumed that the number of teachers and other school employees would grow or decline in proportion to the growth or decline in the number of students).

Based on the U.S. Census Bureau projections, it appears that there will be an increase of 0.2% per year in the state's population over the next decade. While some current positions may be or may become redundant due to technological advances, balancing this against the slight expected growth in population, Pennsylvania's historically very low ratio of public employees per resident relative to other states, and the potential increased need for overall employees in areas such as healthcare, we assume for this analysis that all SERS members retiring under the proposed ERIP would be replaced.

Based on the Department of Education projections, it appears that there will be a decrease of 0.85% per year in public school enrollment over the next decade. In an environment where there is expected to be a gradual decline in the number of students, teachers and other administrative and support positions, it is useful to compare the rate of decrease in the number of jobs with the annual expected "normal" turnover among public school employees. If the number of jobs that will be abolished due to shrinking enrollment exceeds the number of employees expected to leave due to normal turnover, an ERIP could be especially helpful to induce the additional departures on a voluntary basis, thereby avoiding the need to terminate redundant staff.

Therefore, we projected the annual number of departures among school employees to determine if an ERIP would be helpful to accomplish the anticipated downsizing. The results of those projections are summarized below.



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Comparison of Projections of Public School Enrollments,
Teaching, Administrative and Other Positions,
Decrease in Jobs and Expected Normal Turnover

| Fiscal Year Ending | Students (1) | Positions (2) | Decrease in Jobs (3) | Expected Normal Turnover (4) |
|---|---|---|---|---|
| 2006 | 1,800,068 | 255,465 | 1,521 | 20,945 |
| 2007 | 1,789,353 | 253,944 | 2,310 | 20,464 |
| 2008 | 1,773,075 | 251,634 | 2,697 | 20,714 |
| 2009 | 1,754,071 | 248,937 | 2,768 | 21,082 |
| 2010 | 1,734,563 | 246,169 | 2,426 | 21,368 |
| 2011 | 1,717,475 | 243,743 | 2,059 | 21,865 |
| 2012 | 1,702,965 | 241,684 | 1,633 | 21,959 |
| 2013 | 1,691,455 | 240,051 | 1,211 | 22,036 |
| 2014 | 1,682,922 | 238,840 | 1,893 | 22,021 |
| 2015 | 1,669,585 | 236,947 | 1,853 | 21,944 |
| 2016 | 1,656,526 | 235,094 | | |

(1) Enrollments based on projection prepared by the Pennsylvania Department of Education (DOE). The DOE projections go through fiscal year 2013-14. We have projected for 2 additional years by extending the rates seen from fiscal year 2004-5 to fiscal year 2013-14.
(2) FY 2004-5 positions set equal to the number of active members in PSERS as of June 30, 2005. Subsequent years based on the % decrease in enrollments.
(3) Decrease in Jobs = Positions @ x+1 minus Positions @ X.
(4) Expected Turnover is based on the actuarial assumptions of PSERS regarding terminations prior to retirement, retirements, deaths and disabilities among active PSERS members.

Based on the above information, it appears that the normal expected turnover among PSERS active members will be more than adequate to allow most, if not all, school districts to manage any required decreases in staff without the need to encourage teachers and other employees who are close to retirement to retire prior to their superannuation age under PSERS.

Therefore, we have assumed that for practical purposes all PSERS members who would retire under an ERIP would have to be replaced.

Of course, there will be some number of SERS and PSERS members who might retire under an ERIP who would not need to be replaced. So this assumption will understate to some extent the potential payroll savings due to an ERIP. We believe that this understatement in payroll savings will probably be more than offset by the promotional and other salary increases likely to occur due to the ERIP. Thus the net effect of assuming:

- that all SERS and PSERS members who elect to retire under an ERIP will be replaced; and,

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- that there will not be salary increases to continuing active SERS and PSERS members due to promotions to replace ERIP retirees,

is likely to produce a reasonable estimate of the costs and savings to the State and school districts due to such a program.

We note that 55 counties, representing roughly 75% of current enrollments, are expected to experience declining enrollments over the next decade based on the DOE projections. The remaining 12 counties, which are clustered in the eastern portion of the state, are expected to experience increasing enrollments and thus may be increasing the hiring of new staff even in the absence of an ERIP.

*Salary savings due to replacement*

Significant payroll savings are possible under an ERIP if the retiring employees are at relatively high pay levels since many, if not most, of the replacement employees will be hired at relatively low pay levels due to their lower average seniority. We have estimated these savings by assuming that the replacement employees in both SERS and PSERS will have pay (as well as age and other characteristics) consistent with the pay of members who joined SERS and PSERS within the 12 months prior to most recent actuarial valuation (from January 1 to December 31, 2004 for SERS, and July 1, 2004 to June 30, 2005 for PSERS). To develop census data for the hypothetical new employees who would be hired to replace members retiring under an ERIP in future years, we increased the 2004-5 starting pay levels for the assumed level of general wage inflation during the 2 to 3 years up to the year of hire.

*Health Insurance Costs*

We assumed that the health insurance costs of the replacement employees would be based on the level of health insurance premiums in the future years for other active employees (e.g. – no savings on healthcare cost for active members since there would be the same number of active members). We estimated the statewide cumulative costs to school districts of continuing insurance to retirees under Acts 110 and 43 based on the assumption that all districts offer only the minimum mandated benefit of allowing retirees to participate in the active health plan until age 65 by paying the active premium rate. We further assume that 50% of retired members under the age of 65 elect to participate in their district's plan.


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# I. Cost to Fund Initiatives – House Bill 130

Assumed Healthcare Inflation

| Year | Percent Increase |
|---|---|
| | |
| 2006 | 10.0% |
| 2007 | 10.0% |
| 2008 | 10.0% |
| 2009 | 10.0% |
| 2010 | 10.0% |
| 2011 | 9.5% |
| 2012 | 9.0% |
| 2013 | 8.5% |
| 2014 | 8.0% |
| 2015 | 7.5% |
| 2016 | 7.0% |
| 2017 | 6.5% |
| 2018 | 6.0% |
| 2019 | 5.5% |
| 2020 and later | 5.0% |

Assumed Per Capita Claims Costs for Retired Members under Age 65 in 2008 when GASB 45 becomes effective for most School Districts

| Age | Annual Cost |
|---|---|
| | |
| 60 to 64 | $11,000 |
| 55 to 59 | 10,000 |
| under age 55 | 8,000 |

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# I. COST TO FUND INITIATIVES – HOUSE BILL 131

This section will estimate the costs and assets required to fund HB 131, now and over the next ten years. We will first summarize HB 131 and comment on some significant, and potentially very costly, changes from past practice included in this bill that should be reviewed in detail prior to enactment. We provide recommended changes to HB 131 to decrease risk and cost and then detail the estimated funding requirements that would result. We conclude by describing several logical variations of HB 131.

***We want to reiterate the need to develop a long-term affordable contribution schedule to finance the current SERS and PSERS benefits before adding additional costs through legislation to improve benefits as discussed below.***

**Summary of House Bill 131**

HB 131 would provide annual cost-of-living adjustments (COLAs) to annuitants equal to the percentage change in the Consumer Price Index for all Urban Consumers (CPI-U) for the Pennsylvania, New Jersey, Delaware and Maryland area, officially reported by the United States Department of Labor, Bureau of Labor Statistics.

This would represent a significant change from the approach taken by the Legislature in the past in providing COLAs to retired members of SERS and PSERS in the following four ways.

| | HB 131 | Prior Supplemental Annuities |
|---|---|---|
| 1 | HB 131 would automatically provide COLAs in the future based on the increase in the CPI without any limitation on the COLA increase granted. This can create significant uncertainty regarding the ultimate cost. | In the past, supplemental annuities were granted on an ad hoc basis with the exact increases to be provided stipulated in the bill. Thus the cost of funding past supplemental annuities could be estimated fairly accurately. |
| 2 | HB 131 appears to provide COLAs to all annuitants without regard to their age. | Supplemental annuities provided COLAs only to annuitants who had already attained, or from the point when they will attain, superannuation age. |
| 3 | HB 131 would provide COLAs to all annuitants without regard to how long they have been retired. | Supplemental annuities required that the annuitant be retired at least 12 months in order to receive the COLA. |
| 4 | HB 131 appears to apply to all annuitants, even survivor annuitants as they are not specifically excluded. | Supplemental annuities excluded survivor annuitants. |

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We will discuss each of these in turn below. Also please note that based on SERS and PSERS benefit levels, automatic COLAs may give rise to IRC Section 415 issues. (see Appendix C)

**Discussion of Changes from Past Practice**

1) Automatic COLA without limitation

*Price vs. wage inflation*

Both SERS and PSERS adjust members' pensions to reflect their final average salaries at retirement. Some would consider this to be effectively the same as an unlimited pre-retirement COLA to reflect wage inflation. We would like to briefly discuss why indexing pensions based on the CPI after retirement is much riskier than indexing them for wage inflation prior to retirement.

SERS and PSERS currently index pension benefits for increases in earnings during employment. While salaries over long time-periods typically increase faster than price inflation, employers have control over salary increases. Thus, the cost of indexing pensions for the salary increase of each employee during their period of employment is somewhat controllable by employers.

But price inflation is completely outside of the control of employers. Moreover, we understand that the Commonwealth's pension provisions, once enacted, become constitutionally protected from possible future reduction. ***Therefore, we strongly recommend that the Commonwealth be very cautious in considering whether to enact an automatic CPI-based COLA, especially if that COLA were unlimited. Automatically increasing pensions for inflation without any limitation could impair the Commonwealth's ability to finance other needed public services during an extended period of high inflation. Public retirement systems that index pensions for price inflation after retirement typically set a limit, such as 3%, on the amount of annual price increase that would be reflected.***

*Uncertainty regarding the level of, and variability in, future price inflation*

The following table shows the annualized rate of price inflation over 10-year periods starting in 1900 and the six-year period from 2000 through 2005. This is the longest period for which accurate and meaningful data is available. It also shows the annualized rate of inflation over the entire 106 years, the last 30 years, the last 20 years, and the last 10 years (all periods ending in December 2005).



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| Time Period Beg. | End | Annualized Increase in CPI |
|---|---|---|
| 1900 | 1909 | 2.4% |
| 1910 | 1919 | 7.3 |
| 1920 | 1929 | (1.0) |
| 1930 | 1939 | (2.0) |
| 1940 | 1949 | 5.4 |
| 1950 | 1959 | 2.2 |
| 1960 | 1969 | 2.5 |
| 1970 | 1979 | 7.4 |
| 1980 | 1989 | 5.1 |
| 1990 | 1999 | 2.9 |
| 2000 | 2005 | 2.3 |
| | All 106 Years | 3.2% |
| | Last 30 Years | 4.3 |
| | Last 20 Years | 3.0 |
| | Last 10 Years | 2.5 |

Source: US Department of Labor, Bureau of Labor Statistics, Ibbotson Associates and Triumph of the Optimists, by Elroy Dimson, Paul Marsh, and Mike Staunton (Princeton, NJ: Princeton University Press, 2002)

As the table shows, price inflation has averaged about 3.2% since 1900, which is slightly more than its average over the past 20 years, 3.0%. The most recent 10 years have been somewhat lower at 2.5%. The current actuarial assumptions regarding the annual rates of future inflation are 3% for SERS and 3.25% for PSERS.

These long-term averages give the appearance that inflation has been relatively stable, but there has been significant variability around this average figure. For example, during the 1970's, inflation averaged 7.4% on a compounded, or annualized, basis while during the 1930's, inflation was negative – i.e., prices decreased at the average rate of 2.0% per year. To highlight the significance of this variability, during the 1970's prices more than doubled – they increased 104%. If SERS and PSERS annuitants who had retired prior to 1970 had received COLAs during that decade equal to the increase in the CPI, their pensions would have more than doubled during the period. COLAs of this magnitude during that period would have significantly exacerbated the pension funding problems faced by the Commonwealth during the early 1980's.

Thus while long-term averages may give the appearance of relative stability in rates of inflation, inflation can vary significantly from that average and the deviation can continue for an extended time period. For example, from 1970 to 1990, inflation averaged 6.2% on a compounded or annualized basis, which means that prices more than tripled over those 20 years – an increase of 236%.




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As mentioned above, because of this uncertainty and the risk of significant, possibly catastrophic, cost and liability increases under an automatic, unlimited CPI-based COLA, most public retirement systems that provide automatic COLAs limit the annual COLA adjustment to some figure such as 3%.

*Mitigating the risk associated with unlimited COLAs*

A way to limit the risks associated with providing unlimited CPI-based COLAs would be to invest the assets backing the CPI-indexed pensions in US Government Treasury Inflation Protection Securities – TIPS. TIPS are US government bonds that are backed by the full-faith of the US government and indexed so that the principal is adjusted for increases in the CPI after the bond is issued. To offset the value of this inflation protection, the interest credited on the principal is lower than the interest rates on comparable traditional US government bonds. We have illustrated this difference in the rate of interest credited by comparing the yields-to-maturity as of March 23, 2006 and during February 2006 on TIPS vs. traditional treasury bonds with similar maturities in the following table.

| | Conventional Bond Yield | Inflation-Indexed Bond Yield | Difference |
|---|---|---|---|
| <u>10-Year Maturity</u>: | | | |
| Yield on Mar. 23, 2006 | 4.73 | 2.23 | 2.50 |
| Avg. Yield for Feb. 2006 | 4.57 | 2.05 | 2.52 |
| <u>20-Year Maturity</u>: | | | |
| Yield on Mar. 23, 2006 | 4.93 | 2.20 | 2.73 |
| Avg. Yield for Feb. 2006 | 4.73 | 2.01 | 2.72 |

Source: Wall Street Journal

It's important to note that the principal of a TIPS is indexed to the U.S. CPI-U whereas HB 131 would provide a COLA linked to the CPI-U for the Pennsylvania, New Jersey, Delaware, and Maryland area. This regional measure of inflation will not move in lock-step with the national measure, reducing the degree to which a portfolio of TIPS would exactly match future benefit payments. But a portfolio of TIPS could be expected to at least cover the risk that inflation, at the national level, would be higher than expected. It seems reasonable to anticipate the difference between national inflation and regional inflation will not be very significant.

Another possible investment strategy to reduce inflation risk involves the use of inflation-linked swaps. A swap is a contract with a large investment bank whereby the pension plan makes periodic fixed payments to the bank in exchange for payments that are linked to inflation. SERS and/or PSERS might be able to "swap" its unknown future inflation-linked payments for a known set of fixed payments.

Revising the asset allocations of SERS and PSERS so that the annuitant obligations were invested in TIPS or swaps could substantially reduce the risk that price inflation



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could unexpectedly increase the Unfunded Actuarial Liabilities (UAL) of SERS and PSERS. ***But the cost of that risk reduction would be a significant reduction in the expected investment return on that portion of SERS' and PSERS' assets***, since the expected returns on TIPS are significantly lower than the expected return on the current investment portfolios of SERS and PSERS. ***This would further, and very significantly, increase the cost of providing such automatic, unlimited CPI-based COLAs.***

***Therefore, if the Legislature desires to enact legislation that would provide automatic CPI-based COLAs to annuitants, we recommend that the annual COLA adjustment be limited to a figure such as 3%.***

2) Annuitants under superannuation age

As indicated above, HB 131 would provide COLAs to all annuitants without regard to their age. Members of SERS and PSERS can retire and start receiving an annuity upon termination of their service after five (5) years of service. Thus some annuitants are quite young. We have summarized in the following table the number of annuitants receiving pensions under age 50 since most, if not all, of these individuals must have retired prior to superannuation age. These figures are as of the 2004 actuarial valuations of SERS and PSERS.

| Age group | SERS Annuitants | PSERS Annuitants |
|---|---|---|
| Under 25 | 2 | 1 |
| 25-29 | 35 | 34 |
| 30-34 | 192 | 250 |
| 35-39 | 471 | 446 |
| 40-44 | 1,039 | 777 |
| 45-49 | 2,038 | 1,395 |
| Total | 3,777 | 2,903 |

In the past, supplemental annuities provided COLAs only to annuitants who had already attained, or at the point at which they will attain, superannuation age.

***If the Legislature desires to enact legislation that would provide automatic CPI-based COLAs to annuitants, we recommend that consideration be given to limiting the COLAs to annuitants who have attained superannuation age.***

3) Minimum period since retirement

As indicated above, HB 131 would provide COLAs to all annuitants without regard to how long they have been retired. Past supplemental annuities typically required that the annuitant be retired at least 12 months in order to receive the COLA. It is not apparent to us why it would be appropriate to provide COLAs to members who have been retired less than one year.

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# I. Cost to Fund Initiatives – House Bill 131

***If the Legislature desires to enact legislation that would provide automatic CPI-based COLAs to annuitants, we recommend that consideration be given to limiting the COLAs to annuitants who have been retired for 12 months or more.***

4) Treatment of survivor annuitants

As indicated above, HB 131 would apply to all annuitants, even survivor annuitants. Past supplemental annuities have excluded survivor annuitants. We believe that this limitation is based on a provision in the Commonwealth's Constitution. Article III Section 26 of the Constitution of Pennsylvania states (italics added):

> "No bill shall be passed giving any extra compensation to any public officer, servant, employee, agent or contractor, after services shall have been rendered or contract made, nor providing for the payment of any claim against the Commonwealth without previous authority of law: Provided, however, that nothing in this Constitution shall be construed to prohibit the General Assembly from authorizing the increase of retirement allowances or pensions of ***members of a retirement or pension system*** now in effect or hereafter legally constituted by the Commonwealth, its political subdivisions, agencies or instrumentalities, after the termination of the services of said member."

We believe that in the past the italicized phrase has been interpreted to mean only persons who were members of SERS or PSERS as an active employee could receive such an increase, but not their dependents. (Since we are not attorneys, we do not offer this as a legal opinion, but rather as our understanding of the operation of the retirement systems from our view as pension actuaries.)

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# I. Cost to Fund Initiatives – House Bill 131

**Cost to fund initiative now and over the next ten years.**

In light of the above discussion, we have estimated the costs and assets required to fund automatic CPI-based COLAs to SERS and PSERS annuitants, now and over the next ten years for the following package of COLA benefit provisions.

- The COLAs would be based on the increase in the CPI with a 3% limit on the annual COLA increase.
- The COLAs would be provided only to annuitants who had attained superannuation age.
- The COLAs would be provided only to annuitants who have been retired at least 12 months.
- The COLAs would not be provided to survivor annuitants.

The following tables indicate the cost of providing COLA benefits to SERS and PSERS annuitants based on the above provisions. Each table indicates the estimated employer contribution required to fund the current provisions, the provisions modified to include the COLA initiative, and the incremental amount of contributions solely due to the COLA benefits. The contributions shown reflect the current statutory provisions of SERS and PSERS regarding the determination of employer contributions, including the 10-year amortization of the increase in the unfunded actuarial accrued liability due to implementing COLAs. As noted earlier, ***we recommend that before consideration of possible benefit enhancements that will further increase the long-term cost of SERS and PSERS, the Commonwealth develop a pattern of employer contributions on behalf of the current pension provisions that will:***

- ***cover the full normal cost;***
- ***amortize the existing unfunded actuarial accrued liabilities over a reasonable time-frame; and,***
- ***produce increases in employer contributions that are expected to be affordable when they are scheduled to occur.***



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# I. COST TO FUND INITIATIVES – HOUSE BILL 131

**Estimated Employer Contributions to fund COLA initiative for SERS**

($ Amounts in Millions)

| Fiscal Year Ending | Employer Contributions Current Provisions | | Employer Contributions Current Provisions plus COLA | | Incremental Cost of COLA to Employers | |
|---|---|---|---|---|---|---|
| | $ | % | $ | % | $ | % |
| 2008 | 296 | 5.40% | 1,444 | 26.35% | 1,148 | 20.95% |
| 2009 | 248 | 4.35% | 1,454 | 25.52% | 1,206 | 21.17% |
| 2010 | 246 | 4.15% | 1,457 | 24.60% | 1,211 | 20.45% |
| 2011 | 270 | 4.39% | 1,483 | 24.14% | 1,213 | 19.75% |
| 2012 | 297 | 4.66% | 1,511 | 23.73% | 1,214 | 19.07% |
| 2013 | 1,330 | 20.16% | 2,546 | 38.59% | 1,216 | 18.43% |
| 2014 | 1,369 | 20.05% | 2,585 | 37.86% | 1,216 | 17.81% |
| 2015 | 1,340 | 18.97% | 2,558 | 36.19% | 1,218 | 17.22% |
| 2016 | 1,371 | 18.74% | 2,589 | 35.39% | 1,218 | 16.65% |
| 2017 | 1,406 | 18.59% | 2,624 | 34.70% | 1,218 | 16.11% |
| **10-Year Total** | **8,173** | | **20,251** | | **12,078** | |

As of the December 31, 2006 actuarial valuation, implementing the proposed COLA would increase the estimated SERS actuarial accrued liability by $6.6 billion, from $31.5 to $38.1 billion, decreasing the funded status (on a market value basis) from an estimated 90% to 74%.

**Estimated GASB ARCs to account for COLA initiative for SERS**

($ Amounts in Millions)

| Fiscal Year Ending | Employer Expense Current Provisions | | Employer Expense Current Provisions plus COLA (1) | | Incremental Expense of COLA to Employers | |
|---|---|---|---|---|---|---|
| | $ | % | $ | % | $ | % |
| 2008 | 734 | 13.39% | 1,882 | 34.35% | 1,148 | 20.96% |
| 2009 | 712 | 12.49% | 1,904 | 33.41% | 1,192 | 20.92% |
| 2010 | 722 | 12.19% | 1,920 | 32.42% | 1,198 | 20.23% |
| 2011 | 751 | 12.23% | 1,953 | 31.80% | 1,202 | 19.57% |
| 2012 | 783 | 12.29% | 1,989 | 31.22% | 1,206 | 18.93% |
| 2013 | 817 | 12.39% | 2,026 | 30.72% | 1,209 | 18.33% |
| 2014 | 855 | 12.52% | 2,067 | 30.28% | 1,212 | 17.76% |
| 2015 | 896 | 12.67% | 2,111 | 29.87% | 1,215 | 17.20% |
| 2016 | 939 | 12.83% | 2,157 | 29.48% | 1,218 | 16.65% |
| 2017 | 984 | 13.01% | 2,204 | 29.15% | 1,220 | 16.14% |
| **10-Year Total** | **8,193** | | **20,213** | | **12,020** | |

(1) A longer amortization period would be permitted under GASB 25. We have used 10 years for the increase in unfunded liability due to the COLA in accordance with current law. This is consistent with GASB rules.

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# I. COST TO FUND INITIATIVES – HOUSE BILL 131

**Estimated Employer Contributions to fund COLA initiative for PSERS**

($ Amounts in Millions)

| Fiscal Year Ending | Employer Contributions Current Provisions | | Employer Contributions Current Provisions plus COLA | | Incremental Cost of COLA to Employers | |
|---|---|---|---|---|---|---|
| | $ | % | $ | % | $ | % |
| 2008 | 816 | 7.08% | 3,431 | 28.69% | 2,615 | 21.61% |
| 2009 | 801 | 6.77% | 3,451 | 28.05% | 2,650 | 21.28% |
| 2010 | 713 | 5.91% | 3,363 | 26.59% | 2,650 | 20.68% |
| 2011 | 703 | 5.67% | 3,352 | 25.77% | 2,649 | 20.10% |
| 2012 | 730 | 5.71% | 3,379 | 25.24% | 2,649 | 19.53% |
| 2013 | 3,039 | 21.97% | 5,689 | 40.95% | 2,650 | 18.98% |
| 2014 | 3,000 | 21.04% | 5,651 | 39.46% | 2,651 | 18.42% |
| 2015 | 2,897 | 19.69% | 5,551 | 37.55% | 2,654 | 17.86% |
| 2016 | 2,934 | 19.27% | 5,591 | 36.56% | 2,657 | 17.29% |
| 2017 | 2,975 | 18.85% | 5,635 | 35.57% | 2,660 | 16.72% |
| **10-Year Total** | **18,608** | | **45,093** | | **26,485** | |

As of the June 30, 2006 actuarial valuation, implementing the proposed COLA would increase the estimated PSERS actuarial accrued liability by $14.3 billion, from $63.8 to $78.1 billion, decreasing its estimated funded status (on a market value basis) from 84% to 69%.

**Estimated GASB ARCs to account for COLA initiative for PSERS**

($ Amounts in Millions)

| Fiscal Year Ending | Employer Expense Current Provisions | | Employer Expense Current Provisions plus COLA (1) | | Incremental Expense of COLA to Employers | |
|---|---|---|---|---|---|---|
| | $ | % | $ | % | $ | % |
| 2008 | 1,659 | 14.00% | 4,273 | 35.60% | 2,614 | 21.60% |
| 2009 | 1,695 | 13.90% | 4,335 | 35.10% | 2,640 | 21.20% |
| 2010 | 1,672 | 13.35% | 4,316 | 33.99% | 2,644 | 20.64% |
| 2011 | 1,696 | 13.16% | 4,343 | 33.25% | 2,647 | 20.09% |
| 2012 | 1,750 | 13.18% | 4,399 | 32.72% | 2,649 | 19.54% |
| 2013 | 1,810 | 13.23% | 4,462 | 32.22% | 2,652 | 18.99% |
| 2014 | 1,877 | 13.28% | 4,532 | 31.73% | 2,655 | 18.45% |
| 2015 | 1,951 | 13.37% | 4,610 | 31.26% | 2,659 | 17.89% |
| 2016 | 2,031 | 13.42% | 4,694 | 30.75% | 2,663 | 17.33% |
| 2017 | 2,117 | 13.49% | 4,784 | 30.25% | 2,667 | 16.76% |
| **10-Year Total** | **18,258** | | **44,748** | | **26,490** | |

(1) A longer amortization period would be permitted under GASB 25. We have used 10 years for the increase in unfunded liability due to the COLA in accordance with current law. This is consistent with GASB rules.

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# I. COST TO FUND INITIATIVES – HOUSE BILL 131

**Logical Variations**

*A. If unlimited CPI-based COLAs are desired*

As noted previously, we do not recommend the enactment of an unlimited CPI-based COLA for SERS and PSERS. But if the Legislature desires to enact such a COLA, it could substantially reduce the risk that price inflation could unexpectedly increase the Unfunded Actuarial Liabilities (UAL) of SERS and PSERS by having SERS and PSERS modify their investment policies so that the systems allocate assets equal to reserves for the annuitant obligations in TIPS with a duration equal to the duration of those obligations. ***However, the cost of that risk reduction would be a significant reduction in the expected investment return on that portion of SERS' and PSERS' assets***, since the expected returns on TIPS are significantly lower than the expected return on the current investment portfolios of SERS and PSERS. ***This would further increase the cost of providing CPI-based COLAs, more than doubling the incremental costs as shown below.***

As shown in the preceding table, the cost of the current provisions plus a limited COLA without changing investment policy is estimated to be $1.4 billion and $3.4 billion for SERS and PSERS, respectively, in FY 2007-8. Offering an unlimited COLA and moving to a TIPS or Swaps investment strategy in order to mitigate the risk of unexpected inflation would further raise the estimated FY 2007-8 costs to roughly $3.3 billion and $7.6 billion for SERS and PSERS respectively, which represents about 60% of payroll for each system. ***This is a rough approximation and the actual costs of this strategy could differ significantly from these rough estimates depending on market conditions at the time such a strategy were implemented.***

SERS Results under Specified Scenario
($ in billions)

| | Current Provisions | Limited COLA | Unlimited COLA Using TIPS |
|---|---|---|---|
| | | | |
| Actuarial Accrued Liability @ December 31, 2006 | $31.5 | $38.1 | $52.1 |
| Actuarial Value of Assets @ December 31, 2006 | $27.2 | $27.2 | $27.2 |
| UAL @ December 31, 2006 | $ 4.3 | $10.9 | $24.9 |
| | | | |
| Funded Status @ December 31, 2006 | 87% | 71% | 52% |
| | | | |
| Employer Contribution for FY 2007-8 | $0.3 | $1.4 | $3.3 |
| as a Percent of Payroll for FY 2007-8 | 5% | 26% | 60% |

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PSERS Results under Specified Scenario
($ in billions)

| | Current Provisions | Limited COLA | Unlimited COLA Using TIPS |
|---|---|---|---|
| | | | |
| Actuarial Accrued Liability @ June 30, 2006 | $63.8 | $78.1 | $108.8 |
| Actuarial Value of Assets @ June 30, 2006 | $51.7 | $51.7 | $51.7 |
| UAL @ June 30, 2006 | $12.1 | $26.4 | $57.1 |
| | | | |
| Funded Status @ June 30, 2006 | 81% | 66% | 48% |
| | | | |
| Employer Contribution for FY 2007-8 | $0.8 | $3.4 | $7.6 |
| as a Percent of Payroll for FY 2007-8 | 7% | 29% | 63% |

As we noted earlier, the risk associated with granting automatic unlimited COLAs is especially great for a state such as Pennsylvania because of the constitutional restriction that, as we understand it, would prevent the Commonwealth from subsequently restricting the unlimited COLAs in the event that they prove to be unaffordable due to adverse experience. (We are not attorneys and are not offering legal advice on this issue. We are merely reporting our understanding as actuaries of the judicial interpretation of the Pennsylvania Constitution. An attorney should be contacted for legal advice, if that is desired.)

*B. If it were desirable, it would be possible for SERS and PSERS to offer an optional form of annuity that annuitants could elect taking a reduced immediate pension that would increase based on the lesser of CPI or 3% in order to provide COLA protection*

As is discussed in detail in Section 7, many long service retirees can retire with combined SERS (or PSERS) pensions plus Social Security benefits that exceed their pre-retirement earnings. For example, a SERS Class AA or a PSERS Class TD member retiring at age 62 with 35 years of service will receive combined pensions on a single life basis of roughly 100% of final salary. Also, since the member's salary was reduced during active employment to pay the 6.25% contribution to SERS or PSERS, their net pay before taxes was 93.75% of salary. Thus their before tax income would actually increase from 93.75% of salary to roughly 100% of final salary.

If the cost of automatic, employer-financed COLAs is deemed unaffordable, it would nevertheless be possible to offer retiring members who are concerned about the risk of future inflation eroding their standard of living an optional form of annuity at retirement providing an indexed annuity adjusted at the lesser of CPI or 3%. As described below, it appears that based on the combined benefit levels from the system and from Social Security, long-service retiring members could elect such an option and still generate an acceptable income in the initial years of retirement. Note that under this approach,




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there should be no cost to the systems as the member is in essence funding his/her own COLA through the actuarial equivalent reduction in the initial benefit.

For example, consider the previously cited age 62 Class AA member with 35 years of service who will receive a single life pension from SERS of 83% of final salary (where final salary is assumed to be 95% of the final average salary used to calculate pension benefits, such that 35 years times 2.5% times 95% = 83%) and a Social Security benefit of roughly 18% of final salary. The optional form adjustment factor to convert a fixed single-life annuity to an actuarially equivalent single-life annuity that would increase annually by the lesser of the increase in CPI or 3% would be approximately .7 for a member retiring at age 62. If this member elected the COLA optional form of annuity, their SERS benefit would be reduced from 83% of final salary to 58% (83% times 70%) of final salary. When their Social Security benefit is added to this, they would receive a pension of 76% (58% + 18%) of final salary. The SERS pension would have COLA protection up to CPI increases of 3% per year and the Social Security benefit would have unlimited CPI-based COLA protection.

*C. The funding of any variety of COLA could be shared by members and employers*

As both members and employers make contributions to support the current level of benefits offered by SERS and PSERS, funding of enhanced benefits could be approached in the same fashion. Note that due to contribution refund provisions, an increase in member contributions does not stretch as far as an increase in employer contributions. For example, a 1% of payroll increase in member contributions would support the same level of benefit enhancement as a 0.95% of payroll employer contribution increase for SERS or a 0.90% of payroll employer contribution increase for PSERS.

*D. Additional possible changes to COLA design to limit risk and cost*

The following COLA design variations could be used alone or as part of a package of potential changes to HB 131 to provide greater control and predictability of costs.

- Partial CPI indexation – Instead of targeting full inflation protection, a goal of replacing a portion of the retired members purchasing power that has eroded due to inflation could be selected. Indeed this is how prior supplemental annuities have functioned when viewed in the aggregate over several years. Please see Section 3 for a detailed analysis of the cumulative impact of prior supplemental annuities versus inflation.

  For example, if the 100% of CPI COLA (with a maximum of 3% in any year) initiative described above was modified to provide 50% of CPI (with a maximum of 3% in any year), the additional employer contributions to fund the COLA in FY 2007-8:
  - Are estimated to be $486 million or 8.88% of payroll for SERS, and
  - Are estimated to be $1,175 million or 9.65% of payroll for PSERS.

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- Simple COLA – Instead of a compound COLA where the increase is applied to the then current benefit, with a simple COLA the increase is always applied to the original (lower) base benefit from the date of retirement.

  For example, if the 100% of CPI COLA (with a maximum of 3% in any year) initiative described above was modified to provide 100% of CPI Simple COLA (with a maximum of 3% in any year), the additional employer contributions to fund the COLA in FY 2007-8:
  - Are estimated to be $926 million or 16.91% of payroll for SERS, and
  - Are estimated to be $2,127 million or 17.48% of payroll for PSERS.

- Deferred COLA – Instead of commencing the COLA after 12 months of retirement, an extended deferral period could be implemented. The analysis in Section 7 indicates that reasonable inflation protection could be provided to SERS and PSERS retirees using this approach due to the systems' benefit levels.

  For example, if the commencement of a 100% of CPI COLA (with a maximum of 3% in any year) was deferred to 10 years after the later of (a) actual retirement or (b) eligibility for superannuation retirement, the additional employer contributions to fund the COLA in FY 2007-8:
  - Are estimated to be $425 million or 7.75% of payroll for SERS, and
  - Are estimated to be $1,045 million or 8.58% of payroll for PSERS.

- Ad-hoc COLA – Instead offering an automatic COLA which may be constitutionally protected from diminution, the past ad-hoc approach could be continued based on the rationale that it is possible to "not give" an ad-hoc cola if circumstances warrant, but exceedingly difficult, or impossible, to remove an automatic COLA after enactment. The periodic ad-hoc COLAs could be designed to restore lost purchasing power, but unless granted frequently would provide somewhat reduced COLA protection if there are significant time lags between the ad hoc increases. As a result, the expected long-term cost could be less than that of an automatic COLA.

  For example, if a one-time, 4% ad hoc COLA was provided to annuitants who retired prior to July 2001, this ad hoc COLA would be sufficient to roughly "top-up" their pensions to cover 50% of the cumulative increase in the CPI since the later of their (a) actual retirement or (b) eligibility for superannuation retirement. The additional employer contributions to fund such a 4% ad hoc COLA in FY 2007-8:
  - Are estimated to be $39 million or 0.72% of payroll for SERS, and
  - Are estimated to be $89 million or 0.73% of payroll for PSERS.

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# HR 299 Question II

# Past Impact of Early Retirement Incentives

# II. PAST IMPACT OF EARLY RETIREMENT INCENTIVES

## Provisions of Prior SERS and PSERS "30 and Out" Early Retirement Incentives

| ACT | EFFECTIVE PERIOD | BENEFIT |
|---|---|---|
| Act 1998 – 41 | SERS Members:<br>07/01/1998 through 06/30/1999<br>(one year)<br>PSERS Members:<br>04/03/1998 through 07/10/1998<br>04/01/1999 through 06/30/1999<br>(three months, at end of school year, for two consecutive years) | No reduction factor applied for early retirement with a minimum of 30 eligibility points, regardless of age. |
| Act 1994 – 29 | 07/01/1993 through 07/01/1997<br>(four years and one day; ten months of which were applied retroactively) | No reduction factor applied for early retirement with a minimum of 30 eligibility points, regardless of age. |
| Act 1991 - 23 | 10/01/1991 through 06/30/1993<br>(21 months) | No reduction factor applied for early retirement with a minimum of 30 eligibility points, regardless of age. |
| Act 1988 – 112 | 07/01/1989 through 09/30/1991<br>(27 months) | No reduction factor applied for early retirement with a minimum of 30 eligibility points, regardless of age. |
| Act 1987 – 69 | 07/01/1987 through 06/30/1989<br>(two years) | No reduction factor applied for early retirement with a minimum of 30 eligibility points, regardless of age. |
| Act 1986 - 91 | 07/01/1986 through 06/30/1987<br>(one year) | SERS Members:<br>(1) no reduction factor applied for early retirement of members having attained the age of 53 years, with a minimum of 30 eligibility points.<br>(2) decreased reduction factor applied for early retirement of members between the ages of 50 and 53, with a minimum of 30 eligibility points.<br>PSERS Members:<br>No reduction factor applied for early retirement with a minimum of 30 eligibility points, regardless of age. |
| Act 1984 – 95 | 07/01/1985 through 06/30/1986<br>(one year) | Both SERS and PSERS Members:<br>(1) no reduction factor applied for early retirement of members having attained the age of 53 years, with a minimum of 30 eligibility points.<br>(2) decreased reduction factor applied for early retirement of members between the ages of 50 and 53, with a minimum of 30 eligibility points. |

Source: PSERS

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# II. Past Impact of Early Retirement Incentives

The table on the preceding page describes the provisions of past "30 and Out" early retirement incentive programs (ERIPs) offered by SERS and PSERS continuously from 1985 through 1997, and briefly again in 1998 and 1999. In addition, SERS offered an ERIP to its members under Act 23 of 1991 which granted an extra 10% service credit to members retiring at age 55 or older with 10 or more eligibility points.

The following additional details regarding the table on the preceding page apply to SERS members:

- Under the Act 1984-95 ERIP, SERS members initially needed 30 years of State or school service. This was later amended to 30 eligibility points.
- Act 1987-69 and Act 1988-112 extended the reduction factors for SERS members between the ages of 50 and 53 with 30 eligibility points through to September 30, 1991.

To analyze the impact of prior ERIPs we gathered data from several sources. Due to the amount of time that has passed since the initial ERIPs under study and to changes in computer systems and other recordkeeping systems during that time, complete and precise data was generally not available. When conducting this analysis, we noted in various instances that the data from different sources did not line up with each other. Thus the results in this section represent our interpretation of the impact of past ERIPs based upon our understanding of the data that was available for our review.

**SERS experience during prior ERIPs**

We were provided with data from SERS regarding the members who retired under the ERIPs that were continuously offered between July 1, 1985 and June 30, 1997. We focused our analysis on:

- the members who retired during the first 12 months that an ERIP was offered between July 1985 through June 1986 and
- the members who were eligible for the ERIP that was open during the 12 months ending June 1997 and retired prior to that date.

We focused on these two periods because the ERIP closed as of June 30, 1986 and again as of June 30, 1997. (In early July 1986, a new ERIP was offered; but members eligible for the ERIP that ended June 30, 1986 did not know in advance of the June 30 deadline that it would be extended. Therefore a large number of eligible members elected to retire in June 1986 before the ERIP expired.) Based on limits in the data available, retirees who returned to service before 1995, or who died before 1995 and did not have a beneficiary collecting a benefit, may not be included in the file, so it is likely that the member counts in the early years of the file are slightly understated.

If the ERIP described in HB 130 is enacted, there would be a limited time period for eligible members to elect to retire and we would expect that experience under a new ERIP that would be open for a limited time period would be similar to past experience during periods when an ERIP was about to expire.

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## II. Past Impact of Early Retirement Incentives

The SERS experience during these two periods is summarized in the following table for members eligible for the ERIP with an unreduced pension.

| | July 1985 – June 1986 | July 1996 – June 1997* |
|---|---|---|
| Members who retired | 749 | 2,629 |
| Estimated members eligible | 2,000 | 4,700 |
| Election Rate | 37.5% | 55.9% |

* The counts include SERS members who were potentially eligible to retire under the ERIP between July 1996 and June 1997, even those who retired prior to July 1996. SERS was unable to provide active member data that would have allowed a calculation of the number eligible. We estimated the number of active members eligible for the ERIP based on the data tabulations regarding active members from the 1996 to 2000 Experience Study.

As indicated above, we estimated that almost 40% of the SERS members eligible for the ERIP during FY 1985-6 elected to retire before the windows closed. We estimate that roughly 55% If the members whose eligibility ended during FY 1996-7 retired before that ERIP closed.

*Summary of Elections by Year*

The file provided by SERS contained 11,301 records of members who retired under the ERIPs that were in place from July 1, 1985 to June 30, 1997. Of this total, roughly 60% retired under Act 23 of 1991 ("Mellow bill") which granted an extra 10% service credit to members retiring at age 55 or older with 10 or more eligibility points.

The following table summarizes the number of SERS members retiring each year. Members retiring under the 55&10 provision of Act 23 of 1991 ("Mellow retirees") are listed separately from members retiring under a 30 and out incentive.

| Year | 30 and Out retirees | Mellow retirees |
|---|---|---|
| | | |
| 1985 | 364 | |
| 1986 | 562 | |
| 1987 | 219 | |
| 1988 | 152 | |
| 1989 | 263 | |
| 1990 | 252 | |
| 1991 | 222 | 5,484 |
| 1992 | 227 | 1,038 |
| 1993 | 357 | |
| 1994 | 515 | |
| 1995 | 244 | |
| 1996 | 500 | |
| 1997 | 902 | |

## II. PAST IMPACT OF EARLY RETIREMENT INCENTIVES

Of the 5,484 Mellow retirees in 1991, 4027 had already superannuated, 530 actually fall into the 30&out category and the remaining 927 satisfied the 55&10 requirement. Of the 1,038 Mellow retirees in 1992, 775 had already superannuated, 100 actually fall into the 30&out category and the remaining 163 satisfied the 55&10 requirement.

*Accelerations of Retirements*

We have measured the "acceleration" of retirements under the prior ERIPs by subtracting the date of a member's actual retirement from the date when the member would have reached superannuation.

The remaining 40% retired under the other ERIPs that were predominantly "30&outs". About three quarters of the "Mellow retirees" were already eligible for superannuation at retirement and thus benefited from the 10% increase in service, but did not have any acceleration.

| | Count | Average Period of Acceleration in Years |
|---|---|---|
| 30&out retirees | 4,779 | 3.0 |
| Mellow retirees not yet superannuated | 1,720 | 2.2 |
| Mellow retirees already superannuated | 4,802 | N/A |
| TOTAL | 11,301 | 2.8 |

The weighted average acceleration amount of 2.8 years shown in the table above is calculated based only on the 6,499 members (4,779 + 1,720) that did receive an acceleration.

*Information from Other Studies*

The Office of Administration issued a study of the July, 1985 – June, 1986 ERIP in December, 1986. It stated,

> The actuarial cost over the life of all special early retirements was $31,373,831. The one year estimated savings from abolished positions and temporarily vacated positions totaled $16,187,048 and the estimated annual salary differential savings for filled positions totaled $2,683,393. Unemployment compensation charges avoided were estimated at $50,949. Therefore, the net cost of the "early retirement window" as calculated is $12,452,441.

As reported by the Public Employee Retirement Commission, the Office of Administration "study also indicated that as of June 30, 1986, only 11% of the 921

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positions vacated under the ERIP were abolished. Of the remaining positions, 83% were either filled or temporarily vacant, and the status of 6% of the positions was unknown." This data, in combination with the expectation that the Commonwealth will not need to reduce its workforce over the next 10 years (due to the projected gradual increase in population), has led us to assume that substantially all members who might elect to retire under a future ERIP would probably be replaced.

We are not aware of a comparable study of the July 1996 – June 1997 ERIP.

**PSERS experience during prior ERIPs**

We were provided with data from PSERS regarding:

- the members who retired under the ERIPs that were offered between July 1, 1985 and June 30, 1997; and,
- all active members who continued to participate in PSERS throughout the period.

In tabulating the PSERS data, we noted that more members elected to retire under past windows who were between 52 and 57 when they first became eligible for the ERIP than younger or older eligible members. Presumably, this is due to the fact that members 58 or 59 would have been eligible to retire with an unreduced superannuation pension within another year of two when they would have attained age 60, while members under 52 may have been reluctant to leave their career at such a young age.

We used the above described PSERS data to estimate the likelihood that SERS and PSERS members would elect to retire under a future ERIP based on their age at first eligibility.

We also tabulated the number of active PSERS members by year for the first 5 years after the closing of the first ERIP for a sample of 20 school districts selected by the Committee staff. The 5 year period seems to be a reasonable time period during which to expect salary savings from an ERIP to occur. The districts selected represent a mix of large/small, urban/rural and geographic locations, in order to investigate the extent to which school districts took advantage of those ERIPs to downsize their workforces.

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Active PSERS Members in Selected Districts by Year

| | June 30 1986 | June 30 1987 | June 30 1988 | June 30 1989 | June 30 1990 | June 30 1991 | 5-Year Change |
|---|---|---|---|---|---|---|---|
| Allentown | 1,550 | 1,660 | 1,579 | 1,613 | 1,624 | 1,582 | 2% |
| Bradford Area | 446 | 426 | 393 | 380 | 398 | 383 | (14%) |
| Central Bucks | 1,077 | 1,082 | 1,031 | 1,094 | 1,087 | 1,090 | 1% |
| Central Greene | 254 | 263 | 256 | 251 | 245 | 251 | (1%) |
| Curwensville | 131 | 131 | 129 | 134 | 133 | 128 | (2%) |
| Erie | 1,385 | 1,398 | 1,392 | 1,434 | 1,369 | 1,332 | (4%) |
| Greater Johnstown | 477 | 451 | 431 | 431 | 416 | 395 | (17%) |
| Harrisburg | 1,111 | 1,123 | 1,087 | 1,099 | 1,085 | 1,082 | (3%) |
| Hempfield | 706 | 706 | 686 | 691 | 668 | 687 | (3%) |
| Huntington | 273 | 265 | 262 | 260 | 264 | 259 | (5%) |
| Lewisburg | 198 | 201 | 203 | 204 | 195 | 212 | 7% |
| Parkland | 646 | 657 | 656 | 646 | 646 | 659 | 2% |
| Philadelphia | 27,730 | 28,184 | 27,740 | 28,606 | 28,562 | 28,640 | 3% |
| Pittsburgh | 5,711 | 5,664 | 5,529 | 5,670 | 5,596 | 5,702 | 0% |
| Reading | 1,263 | 1,323 | 1,336 | 1,411 | 1,473 | 1,335 | 6% |
| Sharon City | 223 | 227 | 225 | 234 | 234 | 237 | 6% |
| Valley View | 201 | 194 | 189 | 197 | 198 | 202 | 0% |
| Wilkes-Barre | 832 | 811 | 789 | 801 | 777 | 755 | (9%) |
| Williams Valley | 123 | 124 | 122 | 131 | 129 | 118 | (4%) |
| York Suburban | 238 | 243 | 247 | 252 | 254 | 260 | 9% |

Three districts out of this sample decreased staff by more than 5% during this time. Employment at half of the districts in the sample either remained steady or increased during this time period. For the ten districts where staff decreased, it seems likely that each district could have achieved the levels of staff reduction shown through normal attrition rates.

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## II. Past Impact of Early Retirement Incentives

*Summary of Elections by Year*

Based on our analysis of historical PSERS valuation census data files, we find that 14,065 members met the 30&out criteria of the ERIPs that were in place from July 1, 1985 to June 30, 1999. The following table summarizes the number of PSERS members retiring each year.

| Year | 30 and Out retirees |
|---|---|
| | |
| 1985 | 553 |
| 1986 | 298 |
| 1987 | 144 |
| 1988 | 159 |
| 1989 | 244 |
| 1990 | 466 |
| 1991 | 624 |
| 1992 | 492 |
| 1993 | 1,248 |
| 1994 | 488 |
| 1995 | 655 |
| 1996 | 1,491 |
| 1997 | 3,134 |
| 1998 | 1,311 |
| 1999 | 2,758 |

*Acceleration of Retirements*

As described previously for SERS, we have measured the "acceleration" of retirements under the prior ERIPs by subtracting the date of a member's actual retirement from the date when the member would have reached superannuation. We did not receive a file of members of retiring under prior ERIPS from PSERS, and thus examined the prior year's valuation census files to calculate age and service at retirement and thereby impute eligibility for the ERIPs. We did not attempt to identify "Mellow retirees" in this analysis, but focused rather on the "30 and outs" that are more pertinent to the HB 130 study. Of the 14,000 ERIP retirees isolated, we calculated an average acceleration period of 3.1 years, which is very close to the 3.0 years determined for the SERS "30&outs" shown above.

*Information from Other Studies*

The Public Employee Retirement Commission prepared a study of PSERS experience under the ERIP that ran from May, 1992 through August, 1993 (the Mellow bill). This ERIP covered a larger group of membership than would be covered by HB 130, in that

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members who were age 55 with 10 or more years of service were eligible under this ERIP to retire and receive a 10% increase their service credits.

That study indicated that 93% of all retirees under that ERIP were replaced within 2.8 years of the date they left service. The replacement rates within subgroups of these retirees are summarized below.

| | Teachers | Administrative | Other Personnel | Total |
|---|---|---|---|---|
| Positions Vacated | 6,980 | 1,247 | 4,869 | 13,096 |
| Positions Filled | 6,700 | 1,093 | 4,384 | 12,147 |
| Percent Filled | 96% | 88% | 90% | 93% |

In light of the high percentage of members who were replaced during this window, especially among teachers, we believe that it is reasonable to assume that substantially all members who might retire under a future ERIP would be replaced. As noted above, this assumption may slightly understate the payroll savings due to an ERIP. But we believe that this understatement will probably be offset by promotional and other salary increases that would result from an ERIP that we are not able to estimate.

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# HR 299 Question III

# Value of Past Cost-of-Living Increases

# III. VALUE OF PAST COST-OF-LIVING INCREASES

Over the past 20 years, 4 ad-hoc COLAs have been granted to SERS and PSERS annuitants: Acts 112, 29, 88 and 38 of 1988, 1994, 1998 and 2002, respectively.

HB 131 provides that in the future, annuitants would receive automatic annual COLAs based on increases in the Consumer Price Index for all Urban Consumers (CPI-U) for the Pennsylvania, New Jersey, Delaware and Maryland area, which is the index used to adjust salaries for members of the General Assembly under the Public Official Compensation Law.

In this section we begin by recapping the provisions of these ad-hoc COLAs and discussing the funding methods employed, including an estimate of the outstanding cost that has not yet been funded ***based on the original amortization schedule***. We then present comparative results on an individual basis for 20 "average" members of each system who have retired from 1985 through 2004 to illustrate the differences in the 2006 benefit level based on the actual ad-hoc COLAs versus a hypothetical 2006 benefit as if HB 131 had always been in effect. We conclude with a discussion of COLA plan design considerations.



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# III. VALUE OF PAST COST-OF-LIVING INCREASES

## Provisions of Prior SERS and PSERS Ad-hoc COLAs

The following table details the provisions of above-mentioned COLAs as they applied to members who retired in 1985 and later. Acts 29, 88, and 38 granted larger percentage increases for members who had retired in the early 1980's and before.

| SERS and PSERS Ad-hoc COLAs since 1985 | | | |
|---|---|---|---|
| Act | Effective Date | Date of Retirement | Increase |
| 112 (1988) | 01/01/1989 | N/A | $2.00 * years of service + $0.50 * years retired |
| 29 (1994) | 07/01/1994 | 07/01/1991 to 06/30/1992<br>07/01/1990 to 06/30/1991<br>07/01/1989 to 06/30/1990<br>07/02/1984 to 06/30/1989 | 1.50%<br>2.80%<br>5.30%<br>7.90%<br><br>(applies to first $3,000 of monthly benefit only) |
| 88 (1998) | 07/01/1998 | 07/01/1996 to 06/30/1997<br>07/01/1995 to 06/30/1996<br>07/01/1994 to 06/30/1995<br>07/01/1993 to 06/30/1994<br>07/01/1992 to 06/30/1993<br>07/01/1979 to 06/30/1992 | 1.86%<br>3.59%<br>4.95%<br>6.42%<br>7.97%<br>10.00% |
| 38 (2002) | 07/01/2002 | 07/02/1988 to 07/01/1990<br>07/02/1983 to 07/01/1988 | 8.00%<br>10.00% |
| 38 (2002) | 07/01/2003 | 07/02/2001 to 07/01/2002<br>07/02/2000 to 07/01/2001<br>07/02/1999 to 07/01/2000<br>07/02/1998 to 07/01/1999<br>07/02/1994 to 07/01/1998<br>07/02/1990 to 07/01/1994 | 2.27%<br>3.08%<br>4.87%<br>6.35%<br>7.50%<br>9.00% |



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### Funding of Prior COLAs

The following tables detail the initial actuarial costs of the prior COLAs, and the original amortization methodology. The total unfunded liabilities for both SERS and PSERS as of 2001 were re-amortized on a level dollar method over a 10 year schedule, and these prior COLAs are no longer tracked on an individual basis. Using information available from previous valuation reports, we have developed a rough estimate of the current outstanding liability on behalf of the COLAs based on the original amortization schedules.

| Funding of Ad-hoc COLAs by SERS | | | | | |
|---|---|---|---|---|---|
| Act | Original Amortization | | Initial Cost *(millions)* | First Year Payment as % of Payroll | Unamortized Cost as of 12/31/2005 based on original schedule *(millions)* |
| | Method | Schedule | | | |
| 112 (1988) | level dollar | 20 years | $252.1 | 0.72% | $125 |
| 29 (1994) | level percent | 20 years | $224.9 | 0.44% | $170 |
| 88 (1998) | level percent | 20 years | $478.0 | 0.82% | $340 |
| 38 (2002) | Level dollar | 10 years | $256.5 (2002 portion) | 0.77% | $200 |
| 38 (2002) | Level dollar | 10 years | $395.8 (2003 portion) | 1.21% | $340 |

Thus as of January 1, 2006 for SERS there is approximately $1.2 billion of liability on behalf of these prior COLAs based on the original amortization schedules.

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# III. VALUE OF PAST COST-OF-LIVING INCREASES

| Funding of Ad-hoc COLAs by PSERS | | | | | |
|---|---|---|---|---|---|
| | Original Amortization | | | | |
| Act | Method | Schedule | Initial Cost *(millions)* | First Year Payment as % of Payroll | Unamortized Cost as of 07/01/2005 based on original schedule *(millions)* |
| 112 (1988) | level dollar | 20 years | $412.9 | 0.65% | $340 |
| 29 (1994) | level percent | 20 years | $499.0 | 0.53% | $470 |
| 88 (1998) | level percent | 20 years | $956.8 | 0.83% | $900 |
| 38 (2002) | Level dollar | 10 years | $463.8 (2002 portion) | 0.73% | $432 |
| 38 (2002) | Level dollar | 10 years | $754.5 (2003 portion) | 1.22% | $828 |

Thus as of July 1, 2005 for PSERS there is approximately $3.0 billion of liability on behalf of these prior COLAs based on the original amortization schedules.

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# III. VALUE OF PAST COST-OF-LIVING INCREASES

### Comparison of Benefit Increases on an Individual Basis

Based on the summary demographic statistics found in prior SERS and PSERS valuation reports, we have developed the initial monthly benefits for hypothetical career employees (e.g. - age 60 with 30 years of service) retiring in each year since 1985. These initial benefit amounts were then increased to 2006 levels by applying the actual provisions of past ad-hoc COLAs, and also by applying a hypothetical automatic annual COLA (based on the Consumer Price Index for all Urban Consumers (CPI-U) for the Pennsylvania, New Jersey, Delaware and Maryland area, officially reported by the United States Department of Labor, Bureau of Labor Statistics) as if HB 131 had always been in place.

The following tables show the benefit amounts that these hypothetical retirees would be receiving in 2006 (given survival), the cumulative percent increase to the initial benefit, and the difference between the ad-hoc COLA benefit and the automatic CPI-U benefit. In all cases presented it is seen that the ad-hoc COLA increases have lagged the increase in the CPI-U index.

As shown below, most annuitants who have been retired for a decade or more have received COLAs that covered between 40% and 50% of the CPI on their SERS and PSERS pensions. In addition, they have received 100% of CPI COLAs on their Social Security benefits. Thus annuitants who, for example, receive a Social Security benefit equal to 50% of their SERS or PSERS pension received combined COLAs that covered roughly 60% of the CPI while annuitants who receive a Social Security benefit equal to 33% of their SERS or PSERS pension received combined COLAs that covered roughly 50% of the CPI.

An alternative way of looking at the COLAs would be to focus on the purchasing power of annuitants' initial pensions that have been lost due to inflation. Such "Purchasing Power Protection" provisions tend to benefit employees who have been retired for well over a decade or more. For example, the following tables indicate that annuitants who retired at superannuation age more than 20 years ago have lost 25% or more of the purchasing power of their pension. Annuitants who retired at superannuation age since 1990 have seen their pensions lose less than 20% or their initial purchasing power. Some public sector retirement systems provide "Purchasing Power Protection" COLAs that prevent the loss of purchasing power in excess of some figure, such as 20% (California Teachers), 25% (California State Employees and Nebraska State Employees) or 42.5% (Indiana Public Employees and Teachers). If Pennsylvania wished to adopt a similar goal, it could provide periodic ad hoc COLAs to annuitants whose pensions have been eroded by inflation in excess of some threshold (such as those indicated above.)

Note that members retiring with the improved benefits of Act 2001-9 start out in retirement with a higher percent of income replacement than earlier retirees, and thus will have a lesser relative need for inflation protection in retirement. Please see our Retirement Income Analysis in Section 7 for further detail on these recent retirees.

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# III. VALUE OF PAST COST-OF-LIVING INCREASES

Ad-hoc vs. Automatic COLA Comparison for Hypothetical SERS Retirees

| | | Actual Ad-hoc COLAs | | Hypothetical Automatic CPI-U COLA | | | |
|---|---|---|---|---|---|---|---|
| Date Retired | Initial Monthly Benefit | 2006 Monthly Benefit | Annual Compound Percent Increase | 2006 Monthly Benefit | Annual Compound Percent Increase | Percent of CPI Increase Replaced by Ad-hoc COLAs | Lost Purchasing Power |
| 1/1/1986 | $1,400 | $1,908 | 1.6% | $2,643 | 3.2% | 41% | 28% |
| 1/1/1987 | 1,500 | 2,038 | 1.6 | 2,769 | 3.3 | 42 | 26 |
| 1/1/1988 | 1,575 | 2,135 | 1.7 | 2,744 | 3.1 | 48 | 22 |
| 1/1/1989 | 1,675 | 2,147 | 1.5 | 2,789 | 3.0 | 42 | 23 |
| 1/1/1990 | 1,800 | 2,252 | 1.4 | 2,862 | 2.9 | 43 | 21 |
| 1/1/1991 | 1,925 | 2,373 | 1.4 | 2,878 | 2.7 | 47 | 18 |
| 1/1/1992 | 2,025 | 2,464 | 1.4 | 2,936 | 2.7 | 48 | 16 |
| 1/1/1993 | 2,075 | 2,442 | 1.3 | 2,909 | 2.6 | 44 | 16 |
| 1/1/1994 | 2,200 | 2,552 | 1.2 | 2,999 | 2.6 | 44 | 15 |
| 1/1/1995 | 2,300 | 2,595 | 1.1 | 3,048 | 2.6 | 39 | 15 |
| 1/1/1996 | 2,325 | 2,589 | 1.1 | 3,008 | 2.6 | 39 | 14 |
| 1/1/1997 | 2,500 | 2,737 | 1.0 | 3,146 | 2.6 | 37 | 13 |
| 1/1/1998 | 2,575 | 2,768 | 0.9 | 3,186 | 2.7 | 32 | 13 |
| 1/1/1999 | 2,725 | 2,898 | 0.9 | 3,320 | 2.9 | 29 | 13 |
| 1/1/2000 | 2,725 | 2,858 | 0.8 | 3,242 | 2.9 | 26 | 12 |
| 1/1/2001 | 2,850 | 2,938 | 0.6 | 3,324 | 3.1 | 19 | 12 |
| 1/1/2002 | 3,650 | 3,650 | 0.0* | 4,141 | 3.2 | 0 | 12 |
| 1/1/2003 | 3,750 | 3,750 | 0.0* | 4,188 | 3.8 | 0 | 10 |
| 1/1/2004 | 3,825 | 3,825 | 0.0* | 4,171 | 4.4 | 0 | 8 |
| 1/1/2005 | 3,775 | 3,775 | 0.0* | 3,913 | 3.6 | 0 | 4 |

* SERS Class AA members retiring with improved benefits under Act 2001-9 were excluded from the Act 38 COLA increases of 2002 and 2003.

## III. VALUE OF PAST COST-OF-LIVING INCREASES

Ad-hoc vs. Automatic COLA Comparison for Hypothetical PSERS Retirees

| | | Actual Ad-hoc COLAs | | Hypothetical Automatic CPI-U COLA | | | |
|---|---|---|---|---|---|---|---|
| Date Retired | Initial Monthly Benefit | 2006 Monthly Benefit | Annual Compound Percent Increase | 2006 Monthly Benefit | Annual Compound Percent Increase | Percent of CPI Increase Replaced by Ad-hoc COLAs | Lost Purchasing Power |
| 7/1/1985 | $1,475 | $2,006 | 1.5% | $2,785 | 3.1% | 41% | 28% |
| 7/1/1986 | 1,525 | 2,071 | 1.6 | 2,815 | 3.2 | 42 | 26 |
| 7/1/1987 | 1,625 | 2,201 | 1.7 | 2,831 | 3.0 | 48 | 22 |
| 7/1/1988 | 1,725 | 2,252 | 1.5 | 2,873 | 3.0 | 46 | 22 |
| 7/1/1989 | 1,825 | 2,283 | 1.4 | 2,902 | 2.9 | 43 | 21 |
| 7/1/1990 | 1,950 | 2,381 | 1.3 | 2,915 | 2.6 | 45 | 18 |
| 7/1/1991 | 2,075 | 2,525 | 1.4 | 3,009 | 2.6 | 48 | 16 |
| 7/1/1992 | 2,200 | 2,589 | 1.2 | 3,084 | 2.5 | 44 | 16 |
| 7/1/1993 | 2,350 | 2,726 | 1.2 | 3,204 | 2.5 | 44 | 15 |
| 7/1/1994 | 2,475 | 2,831 | 1.2 | 3,279 | 2.5 | 44 | 14 |
| 7/1/1995 | 2,625 | 2,923 | 1.0 | 3,396 | 2.5 | 39 | 14 |
| 7/1/1996 | 2,625 | 2,874 | 1.0 | 3,303 | 2.4 | 37 | 13 |
| 7/1/1997 | 2,675 | 2,876 | 0.9 | 3,310 | 2.5 | 32 | 13 |
| 7/1/1998 | 2,775 | 2,983 | 1.0 | 3,381 | 2.7 | 34 | 12 |
| 7/1/1999 | 2,875 | 3,058 | 1.0 | 3,421 | 2.7 | 33 | 11 |
| 7/1/2000 | 2,950 | 3,094 | 0.9 | 3,441 | 2.8 | 29 | 10 |
| 7/1/2001 | 3,675 | 3,675 | 0.0* | 4,169 | 2.8 | 0 | 12 |
| 7/1/2002 | 3,750 | 3,750 | 0.0* | 4,188 | 3.2 | 0 | 10 |
| 7/1/2003 | 3,850 | 3,850 | 0.0* | 4,198 | 3.5 | 0 | 8 |
| 7/1/2004 | 4,025 | 4,025 | 0.0* | 4,172 | 2.4 | 0 | 4 |

* PSERS Class TD members retiring with improved benefits under Act 2001-9 were excluded from the Act 38 COLA increases of 2002 and 2003.

# HR 299 QUESTION IV

# EMPLOYMENT OPPORTUNITIES FOR YOUNGER WORKERS

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# IV. Employment Opportunities for Younger Workers

We have measured the "value" of the proposed ERIP in providing employment for younger workers by estimating the incremental number of job openings expected to be created in each year during and following the ERIP due to the acceleration of retirements among eligible members.

First, we estimate the number of job openings that would be expected in the absence of the ERIP solely due to the projected "normal" turnover in employees, assuming that the number of jobs remains constant for each employer. Then, assuming that the increased retirement rates detailed in Section I occur in response to the ERIP, we recalculate the expected number of job openings that would occur each year, again assuming that the number of jobs remains constant for each employer. Then, the "value" of the ERIP would be the number of additional job openings that would be created during each year of the ERIP.

Number of Job Openings in SERS Agencies Expected due to ERIP

| FY Ending | Number of Expected Job Openings w/o ERIP | Number of Additional Job Openings due to ERIP | Number of Expected Job Openings with ERIP |
|---|---|---|---|
| 2007 | 7,070 | 1,950 | 9,020 |
| 2008 | 7,397 | 1,334 | 8,731 |
| 2009 | 7,659 | 314 | 7,973 |
| 2010 | 7,882 | (100) | 7,782 |
| 2011 | 8,051 | (192) | 7,859 |
| 2012 | 8,168 | (240) | 7,928 |
| 2013 | 8,248 | (269) | 7,979 |
| 2014 | 8,290 | (279) | 8,011 |
| 2015 | 8,334 | (263) | 8,071 |
| 2016 | 8,386 | (227) | 8,159 |
| TOTAL | 79,485 | 2,028 | 81,513 |

Number of Job Openings in PSERS LEAs Expected due to ERIP

| FY Ending | Number of Expected Job Openings w/o ERIP | Number of Additional Job Openings due to ERIP | Number of Expected Job Openings with ERIP |
|---|---|---|---|
| 2006 | 20,945 | 5,235 | 26,180 |
| 2007 | 20,464 | 5,097 | 25,561 |
| 2008 | 20,714 | 187 | 20,901 |
| 2009 | 21,082 | (173) | 20,909 |
| 2010 | 21,368 | (415) | 20,953 |
| 2011 | 21,865 | (585) | 21,280 |
| 2012 | 21,959 | (796) | 21,163 |
| 2013 | 22,036 | (929) | 21,107 |
| 2014 | 22,021 | (815) | 21,206 |
| 2015 | 21,944 | (662) | 21,282 |
| TOTAL | 214,398 | 6,144 | 220,542 |

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# IV. Employment Opportunities for Younger Workers

During the ERIP period and very briefly thereafter, over 3,000 additional SERS members and over 10,000 additional PSERS members are expected to leave active employment due to the ERIP. The vast majority of this net turnover of actives is due to retirements under the ERIP, with a small portion due to the differences in expected withdrawal rates of replacement members versus the expected retirement rates of the members they replaced.

Over a 10 year period, the net number of new job openings decreases to roughly 2,000 for SERS and 6,000 for PSERS as aggregate rates of decrement from active employment are expected to decline once the ERIP retirees have "cleared out". To the extent that employers take advantage of the ERIP as an opportunity to downsize staff, fewer net new openings would be expected to result over this time.

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# HR 299 QUESTION V

# CRITICAL SKILLS AND EXPERIENCE



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# V. CRITICAL SKILLS AND EXPERIENCE

Pennsylvania is one of the "older" states in the nation. From the 2000 census, the median age of all Pennsylvania residents is 38.0 years, compared to 35.3 years nationwide. The percentage of Pennsylvania residents under the age of 18 is lower than the national average (23.8% versus 25.7%) and the percentage of Pennsylvania residents over the age of 65 is higher than the national average (15.6% versus 12.4%).

This demographic trend is also seen in the state's public workforce, with 54% of government employees eligible to retire in the next decade, placing Pennsylvania fifth out of the fifty states. "Sixty-four percent of Washington's workforce is eligible to retire between now and 2015. The figure for Maine is 59 percent, for Tennessee 58 percent, for Michigan 56 percent and for Pennsylvania 54 percent. . . . The aging trend is more pronounced in state governments than in the U.S. private workforce in general. . . . This will soon force state administrators to cope with job vacancies and a loss of institutional memory, and it will place added stress on state pension systems and health insurance costs." ("Aging to take toll on state workforces", stateline.org, April 1, 2005)

We first review member employers within SERS and PSERS that have the highest concentrations of older, long-service experienced employees, and who are thus likely to be the most impacted by the proposed ERIP in House Bill 130. We then follow with an analysis of the distribution of age and service by type of employment.

**SERS Retirement Eligibility Concentrations by Agency**

Based on January 1, 2005 SERS data, 24% of the current SERS active participants will be eligible for unreduced retirement by June 30, 2008 (when the proposed ERIP would expire) without the ERIP. This percent increases to 34% if the proposed ERIP is implemented. The following table illustrates the concentration of retirement eligible employees for the 45 SERS agencies with 100 or more employees as of January 1, 2005.

Percent of SERS Members Eligible for Unreduced Retirement by June 30, 2008

| | Number of Agencies with over 100 employees | |
|---|---|---|
| Percent Eligible | Without ERIP | With ERIP |
| | | |
| Less than 10% | 1 | 0 |
| 10 to 20% | 12 | 2 |
| 20 to 30% | 27 | 9 |
| 30 to 40% | 5 | 28 |
| Over 40% | 0 | 6 |
| | | |
| Total | 45 | 45 |

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## V. Critical Skills and Experience

The following table lists the 6 SERS agencies with over 100 employees that would have retirement eligibility concentrations of 40% or more by June 30, 2008 if the proposed ERIP were implemented.

SERS Agencies with Highest Retirement Eligibility under ERIP

| | Percent Retirement Eligible | |
|---|---|---|
| | Without ERIP | With ERIP |
| | | |
| Civil Service Commission | 32% | 47% |
| Public Utility Commission | 26 | 46 |
| Department of Education | 31 | 45 |
| Department of Labor and Industry | 29 | 44 |
| Public School Employees Retirement System | 22 | 43 |
| Department of Public Welfare | 25 | 42 |

**PSERS Retirement Eligibility Concentrations by Local Educational Association**

Based on July 1, 2005 PSERS data, 11% of the current PSERS active participants will be eligible for unreduced retirement by June 30, 2008 (when the proposed ERIP would expire) without the ERIP. This percent increases to 22% if the proposed ERIP is implemented. The following table illustrates the concentration of retirement eligible employees for the 508 local educational associations (LEAs) with 100 or more employees as of July 1, 2005.

Percent of PSERS Members Eligible for Unreduced Retirement by June 30, 2008

| | Number of LEAs with over 100 employees | |
|---|---|---|
| Percent Eligible | Without ERIP | With ERIP |
| | | |
| Less than 10% | 291 | 6 |
| 10 to 20% | 211 | 192 |
| 20 to 30% | 6 | 270 |
| 30 to 40% | 0 | 36 |
| Over 40% | 0 | 4 |
| | | |
| Total | 508 | 508 |

# V. CRITICAL SKILLS AND EXPERIENCE

The following table lists the 5 LEAs with over 500 employees that would have retirement eligibility concentrations of 30% or more by June 30, 2008 if the proposed ERIP were implemented.

PSERS LEAs with Highest Retirement Eligibility under ERIP

| | Percent Retirement Eligible | |
|---|---|---|
| | Without ERIP | With ERIP |
| | | |
| Bensalem Township School District | 19% | 39% |
| Mifflin County School District | 11 | 32 |
| Wilkes Barre Area School District | 15 | 31 |
| Armstrong School District | 13 | 31 |
| Montgomery County Intermediate Unit | 15 | 30 |

**SERS Critical Skills Analysis**

Using census data for agencies that participate in PEBTF, the Office of Administration prepared a projection of SERS members who would have 80 points (age plus years of service) by the expiration of the ERIP on June 30, 2008, and summarized the results by job title. The job title with the most retirement eligible members (971) was Income Maintenance Caseworker. Of the 1,576 job titles listed, 632 had one retirement eligible member, and 259 had 10 or more retirement eligible members.

The top 52 job titles by count, which represent just under half of all identified retirement eligible members, were assigned numerical scores of 1 (least) to 5 (most) for "Criticality" and "Difficulty to Fill". The Office of Administration notes that any such ranking is subjective and that for given job titles, rankings could vary based on the agency and location of the job.

Job Titles with the most Members eligible for HB 130 ERIP - 80 points by June 30, 2008

| Job Title | Number of Members Eligible for ERIP |
|---|---|
| | |
| Income Maintenance Caseworker | 971 |
| Transportation Equipment Operator B | 436 |
| Clerk Typist 2 | 395 |
| Clerk Typist 3 | 347 |
| Income Maintenance Casework Supervisor | 320 |

Combining the 52 ranked job titles into categories shows that the overall job category with the largest number of members eligible for the ERIP is clerk/typist, with 1,503 retirement eligible members among 10 separate job titles. The next largest job category is income maintenance administration, with 1,405 retirement eligible members among 4 separate job titles.

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# V. Critical Skills and Experience

Critical and Difficult to Fill Positions

| Position | Number Eligible for ERIP | Critical Score | Difficulty to Fill Score | Combined Score |
|---|---|---|---|---|
| | | | | |
| Diesel mechanic | 42 | 5 | 5 | 10 |
| Registered nurse | 149 | 5 | 4 | 9 |
| Licensed practical nurse | 93 | 5 | 4 | 9 |
| Psychiatric aide | 272 | 5 | 3 | 8 |
| Registered nurse supervisor | 65 | 5 | 3 | 8 |

Pennsylvania's Workforce Planning Model, milestones achieved during the last decade and future short and long-term strategies are outlined in "Case Study: Pennsylvania's Changing Workforce: Planning Today with Tomorrow's Vision" (Public Personnel Management, Volume 33 No. 4 Winter 2004). Of note:

- State agency employment data has been maintained for nearly 80 years, and the Governor's Annual Workforce Report has been published for over 30 years.
- A heightened emphasis was placed on workforce planning beginning in the mid-1990's, including identification of positions with high risk for turnover and monitoring of the increasing number of retirement-eligible employees.
- Websites for nursing recruitment and decentralized workforce succession planning were developed.
- The Bureau of Workforce Planning and Development was created in 2004. Current initiatives focus on information technology professionals, nurses, parole agents and human resources professionals.

**PSERS Critical Skills Analysis**

Unlike for SERS member agencies, data regarding criticality of position was not available at a job title level for PSERS members. PSERS provided a "certificated"/"non-certificated" code for the membership (i.e., members with a teaching certificate.), which was matched against the June 30, 2005 PSERS valuation census data.

The certificated group was slightly larger, representing roughly 60% of the overall membership. In analyzing the data by group it became apparent that the ERIP would impact the groups differently, as per the following table.

Impact of Proposed ERIP on Retirement Eligibility by Group

| | Percent Retirement Eligible by June 30, 2008 | |
|---|---|---|
| Group | Without ERIP | With ERIP |
| | | |
| Certificated | 8 | 25 |
| Non-certificated | 13 | 18 |

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## V. Critical Skills and Experience

Under the standard superannuation provisions in absence of the ERIP, non-certificated members have a roughly 50% greater retirement eligibility (13% versus 8%) during this time period. However, the table above makes clear that the certificated membership is much more concentrated at the ages and service amounts that would allow them to benefit under the HB 130 ERIP.

"Head of the Class: A Quality Teacher in Every Pennsylvania Classroom", a report by The Education Policy and Leadership Center (www.eplc.org/teacherreport.pdf), poses and addresses the following question:

> "Does Pennsylvania have or face a shortage of qualified teachers? The state clearly has not experienced the type of crisis felt by rapidly growing states such as California, Texas, and Nevada, where increasing student enrollments, impending retirements of baby boom generation teachers, and teacher turnover are combining to create serious shortfalls. What Pennsylvania does face are some shortage areas and at least anecdotal evidence of worsening shortages, some disturbing trends, and the likelihood of increased competition from states that are in crisis. Pennsylvania's shortages include:
>
> - Qualified teachers for urban districts and, to a lesser degree, rural districts.
> - Teachers of physics, chemistry, biology, mathematics (especially for higher level math courses), general science, world languages, special education, technology education (formerly industrial arts).
> - Racial/ethnic minority candidates."

The report expands on the above points and also notes:

- Emergency permits (for example issued to non-certificated instructors, or to certificated personnel teaching in a different subject area) are issued by districts when a certificated candidate cannot be found. During 2001-2, over half of the emergency permits were issued to fill day-to-day substitute positions. Of the emergency permits issued to fill full-time positions, roughly three quarters were issued by seven urban districts.
- Retired teachers can return to teaching for up to 95 days per year without losing state retirement benefits, subject to various conditions. (PSERS notes that Act 63 of 2004 changed the law to the following: "Retired school employees can return to public school service for the full school year during which an emergency or shortage of appropriate personnel occurs.")
- "The state's teacher preparation institutions annually certify more potential teachers than the state's public schools hire. Some of the others teach in private schools, go to graduate school, choose other occupations, or decide to raise families. For several years, Pennsylvania has been a net exporter of teachers. Many Pennsylvania graduates are recruited to teach in other states, such as Virginia, North and South Carolina, and Texas. As NCLB increases the pressure

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on all states to staff their schools only with highly qualified teachers, recruitment by growing states and from those that produce fewer teachers is likely to increase."

### Logical Variation

Districts that are currently having difficulty filling teaching positions could potentially see a significant increase in difficulty maintaining staffing levels in upcoming years after an ERIP. In addition to having to recruit replacements for retiring teachers, the newly hired teachers are likely to exhibit high turnover, thus districts will end up recruiting more than one new teacher in upcoming years to replace each teacher retiring under the ERIP.

We are aware of various school districts throughout the state that have implemented ERIPs on their own in recent years. These decisions were made at the local level based on the district's circumstances, and the ERIP benefits were funded by the district, without impacting state benefits other than through actuarial gains/losses due to demographic experience.

PSERS could potentially offer an ERIP that would be optional for districts. Those districts that elected to participate could fund the cost of the ERIP through increased employer contributions. This variation could be potentially be attractive to districts that would like reduce staff levels since the administration would be centrally coordinated, and would be preferable for districts that are currently having difficulty maintaining adequate staffing levels since they could choose to not offer the ERIP.

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# HR 299 Question VI

# Impacts on General Fund and School Districts

# VI. IMPACTS ON GENERAL FUND AND SCHOOL DISTRICTS

**Funding Sources of SERS and PEBTF**

The Office of Administration has indicated that historically the General Fund has funded just over half of the Commonwealth's cost (51%) with the remaining funds coming from Special Funds (e.g. motor vehicle, lottery) (19%), Federal funds (18%) and Other Funds (Augmentations) that deal primarily with personnel costs (12%).

As Commonwealth employees comprise almost 80% of the SERS membership, we have estimated that the General Fund is responsible for roughly 40% of the SERS employer contribution.

We also assumed that 40% of PEBTF's costs are paid by the General Fund.

**Funding Sources of PSERS**

Contributions to PSERS are initially made entirely by school districts. We understand that the districts then receive a reimbursement from the General Fund based on the market value income aid ratio (MVIAR) and the hire dates of the district employees. Each district has an MVIAR calculated each year. The Pennsylvania Department of Education has indicated that in 2005-6, MVIARs ranged from .15 to .85. For employees hired before July 1, 1994, the district is reimbursed 50% of the PSERS contribution. For employees first hired after June 30, 1994, the district is reimbursed the greater of 50% or the actual MVIAR% of the PSERS contribution.

We estimated the effective state-wide MVIAR for reimbursement purposes for employees hired after June 30, 1994 by weighting each district's effective MVIAR (the greater of 50% or the actual MVIAR) against its expenditures (as a proxy for payroll) as reported on the Department of Education website. This calculation indicated that the effective state-wide MVIAR was roughly 60% in 2005-6.

The percent of payroll to which the MVIAR applies will increase over time as longer service employees terminate and new employees are hired. Currently the effective state-wide MVIAR applies to roughly 45% of state-wide payroll; we have projected that this will increase to roughly 80% of state-wide payroll in 10 years.

Currently, the effective state-wide MVIAR of 60% applies to roughly 45% of state-wide payroll and the 50% reimbursement rate applies to the remaining 55% of state-wide payroll. As a result, the General Fund reimburses school districts for roughly 55% (60%*45% plus 50%*55%) of the PSERS contribution. The net cost to school districts is the remaining 45%. We have estimated that the roughly 55% of school district costs currently paid by the General Fund will increase to about 58% over the 10 years ending FY 2015-16 as teachers who were hired prior to July 1994 retire.

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# VI. IMPACTS ON GENERAL FUND AND SCHOOL DISTRICTS

**Funding Sources for other School District costs**

School district costs are funded from two primary sources: local sources and state sources. We understand that there is no earmarked State contribution toward payroll or health insurance costs comparable to the State support from the General Fund for PSERS contributions. Therefore we have estimated that there will be no other direct affect on the General Fund due to HB 130 beyond the effect on the State subsidy for PSERS contributions.

**Impact of House Bill 130**

*SERS and PSERS*

As displayed in Section 1, the incremental nominal dollar cost of funding the ERIP based on current law during FY 2007-8 through FY 2015-16 is estimated to be $286 million and ($503) million for SERS and PSERS respectively, for a 10-year total of ($217) million. This cost estimate reflects the sum of (a), (b), and (c) less (d) described below:

(a) the estimated additional contributions on behalf of pension benefits for SERS and PSERS,
(b) the estimated incremental pay-as-you-go costs for retired SERS members in PEBTF and retired PSERS members receiving premium assistance,
(c) the estimated incremental school district costs due to the requirements of Acts 110 and 43,
(d) the estimated payroll savings.

Based on the discussion of funding sources of SERS and PSERS earlier in this section, this equates to a 10-year total cost to the General Fund of about $1.0 billion, and a 10-year total savings to school districts of $1.3 billion, with the remaining $0.2 billion to be funded from the various other funding sources contributing to SERS, as summarized in the table on the following page.

If the General Fund is also contributing half of the cost for non-Commonwealth employees who are SERS members, the General Fund Grand Total would increase by $28 million, with the other SERS funding sources decreasing by $28 million.

At the end of the 10 year period, the portion of the total payroll of PSERS members attributable to members hired after June 30, 1994, whose reimbursements from the General Fund to school districts are based on the effective MVIAR, would likely be roughly the same whether or not the ERIP proposed in House Bill 130 occurs. However, acceleration of retirements during this period due to the ERIP would speed up this shift in payroll.

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**Projection of Cost of HB 130 by Funding Source**
($ amounts in millions)

| Fiscal Year Ending | General Fund | Local School Districts | Other funding sources | TOTAL |
|---|---|---|---|---|
| | | **SERS** | | |
| 2007 | ($1) | n/a | ($1) | (2) |
| 2008 | 21 | n/a | 32 | 53 |
| 2009 | 22 | n/a | 32 | 54 |
| 2010 | 25 | n/a | 38 | 63 |
| 2011 | 26 | n/a | 39 | 65 |
| 2012 | 28 | n/a | 42 | 70 |
| 2013 | (4) | n/a | (7) | (11) |
| 2014 | (4) | n/a | (5) | (9) |
| 2015 | 0 | n/a | (1) | (1) |
| 2016 | 2 | n/a | 2 | 4 |
| **Total** | **$115** | **n/a** | **$171** | **$286** |
| | | **PSERS** | | |
| 2007 | $3 | ($211) | n/a | (208) |
| 2008 | 141 | (289) | n/a | (148) |
| 2009 | 158 | (236) | n/a | (78) |
| 2010 | 158 | (183) | n/a | (25) |
| 2011 | 160 | (126) | n/a | 34 |
| 2012 | 161 | (66) | n/a | 95 |
| 2013 | 15 | (126) | n/a | (111) |
| 2014 | 14 | (73) | n/a | (59) |
| 2015 | 14 | (31) | n/a | (17) |
| 2016 | 14 | 0 | n/a | 14 |
| **Total** | **$838** | **($1,341)** | **n/a** | **($503)** |
| | | **SERS and PSERS** | | |
| **Grand Total** | **$953** | **($1,341)** | **$171** | **($217)** |

# VI. IMPACTS ON GENERAL FUND AND SCHOOL DISTRICTS

*Retiree Healthcare for PSERS Retirees*

School districts have historically operated pay-as-you-go retiree healthcare plans. As discussed in detail in the Background on the Funding of Current Insurance Benefits section, districts will need to disclose the actuarial cost of these plans to comply with GASB 45. Pre-funding of retiree healthcare is optional.

Each school district determines their retiree healthcare arrangement at the district level, subject to the minimum benefit provisions of Act 110 and Act 43. Data on the retiree healthcare arrangements of each school district in the state is not available. In Section I we presented **very rough** estimates of the statewide impact of GASB 45 on school districts, assuming that every district offered the minimum benefits mandated by Act 110 and Act 43. As many districts offer more substantial retiree healthcare benefits, we now expand this analysis to estimate the impact of GASB 45 on two hypothetical school districts:

- District A offers retired members the opportunity to buy retiree healthcare coverage until age 65 by paying the active premium rate. As the true cost of the healthcare for the covered retirees exceeds the active premium rate, a GASB 45 liability arises from this "implicit rate subsidy". We assume for District A that 50% of eligible retirees elect to participate, and that none cover a spouse. This is the same assumption set used in the state-wide analysis of Section I.
- District B offers coverage to retired members until age 65 for $100 per month (the amount of premium assistance provided by PSERS), and allows retired members to purchase coverage for a spouse by paying the active premium rate. The GASB 45 liability is based on the true cost of the retired member coverage (cash cost of premium paid by the district, including the implicit rate subsidy) and the implicit rate subsidy for the spouse. (**) We further assume for District B that 100% of eligible retirees elect to participate, and that 80% are married (male spouses 3 years older than female spouses), with 50% of married members electing to purchase coverage for a spouse.

** For PSERS members retiring prior to age 62, 24.5 years of service are required for Premium Assistance eligibility. Members can satisfy the ERIP "80 points" requirement between ages 55.5 and 62 with less than 24.5 years of service. It is not clear in HB 130 whether Premium Assistance eligibility would remain at 24.5 years of service for retirees under age 62 or whether Premium Assistance would be extended to all ERIP retirees. In preparing our cost estimates, we have assumed that the Premium Assistance would be extended to all ERIP retirees. If this is not the case, the school district costs shown below would increase slightly.

We have applied the District A and District B sets of benefit provisions to the entire PSERS membership, and then scaled down the results to develop representative results for an "average" size school district with 500 active members and 325 retirees. As GASB 45 will become effective on July 1, 2008 for the majority of school districts in the state, we have run the valuations using census data projected June 30, 2008. Note that this date follows the expiration of the HB 130 ERIP.

# VI. IMPACTS ON GENERAL FUND AND SCHOOL DISTRICTS

We first perform actuarial valuations of District A and District B's retiree healthcare liability based on data projected to June 30, 2008 without the ERIP. This analysis allows for comparison of how valuation results may differ for school districts with significantly different levels of benefits. We then rerun each district's actuarial valuation using data projected to June 30, 2008 including the ERIP. Assuming that all members retiring under the ERIP have been replaced, the Districts still have 500 active members, but the retired membership has grown to 350 retirees. This analysis illustrates how the ERIP could impact the GASB 45 liability of a "typical" school district.

**Fiscal Year 2008-9 Pay-as-you-go Contribution**
($ in millions)

| District | w/o ERIP | w/ ERIP | Difference |
|---|---|---|---|
| A | 0.06 | 0.08 | 0.02 |
| B | 0.51 | 0.69 | 0.18 |

**Fiscal Year 2008-9 GASB 45 ARC**
($ in millions)

| District | w/o ERIP | w/ ERIP | Difference |
|---|---|---|---|
| A | 0.14 | 0.14 | 0.00 |
| B | 1.12 | 1.13 | 0.01 |

Results shown in the tables above for District A represent the cost and the liability due to the "implicit rate subsidy" only.

As the ERIP would expire one year prior to the effective date of GASB45 for these typical districts, for purposes of the illustration above we have assumed that the districts would not separately measure a liability increase due to the ERIP and amortize it over 5 years, but rather that all unfunded past service liability as of July 1, 2008 would be amortized over 30 years on a level percent of payroll basis. While the demographic changes due to the ERIP clearly increase the FY 2008-9 pay-as-you-go costs, the GASB ARCs are relatively unchanged as the increase in the ARC due to the amortization of a higher unfunded past service liability over 30 years is roughly offset by the decrease in the normal cost due to the demographic changes in the active membership.

The excess of the ARC over the pay-as-you-go cost will create a Net OPEB Obligation that will be reported on the district's financial statements.

**Impact of House Bill 131**

As displayed in Section 1, the incremental nominal dollar cost of funding the COLAs based on current law during FY 2007-8 through FY 2016-17 is estimated to be $12.1 billion and $26.5 billion for SERS and PSERS respectively, for a 10-year total of $38.6 billion. The expected payroll for both systems combined over this 10-year period is

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$197 billion, thus the incremental cost of funding the COLAs during this period is roughly an additional 20% of payroll.

Based on the discussion of funding sources of SERS and PSERS earlier in this section, this equates to a 10-year total cost to the General Fund of about $19.8 billion, and a 10-year total cost to school districts of $11.5 billion, with the remaining $7.2 billion to be funded from the various other funding sources contributing to SERS. If the General Fund is also contributing half of the cost for non-Commonwealth employees, the General Fund total would increase to about $21.0 billion, with the other SERS funding sources decreasing to $6.0 billion.

**Projection of Cost of HB 131 by Funding Source**
($ amounts in millions)

| Fiscal Year Ending | General Fund | Local School Districts | Other funding sources | TOTAL |
|---|---|---|---|---|
| | | **SERS** | | |
| 2008 | $463 | n/a | $685 | 1,148 |
| 2009 | 486 | n/a | 720 | 1,206 |
| 2010 | 488 | n/a | 723 | 1,211 |
| 2011 | 489 | n/a | 724 | 1,213 |
| 2012 | 489 | n/a | 725 | 1,214 |
| 2013 | 490 | n/a | 726 | 1,216 |
| 2014 | 490 | n/a | 726 | 1,216 |
| 2015 | 491 | n/a | 727 | 1,218 |
| 2016 | 491 | n/a | 727 | 1,218 |
| 2017 | 491 | n/a | 727 | 1,218 |
| **Total** | **$4,868** | **n/a** | **$7,210** | **$12,078** |
| | | **PSERS** | | |
| 2008 | $1,436 | $1,179 | n/a | 2,615 |
| 2009 | 1,463 | 1,187 | n/a | 2,650 |
| 2010 | 1,472 | 1,178 | n/a | 2,650 |
| 2011 | 1,481 | 1,168 | n/a | 2,649 |
| 2012 | 1,490 | 1,159 | n/a | 2,649 |
| 2013 | 1,500 | 1,150 | n/a | 2,650 |
| 2014 | 1,509 | 1,142 | n/a | 2,651 |
| 2015 | 1,520 | 1,134 | n/a | 2,654 |
| 2016 | 1,529 | 1,128 | n/a | 2,657 |
| 2017 | 1,539 | 1,121 | n/a | 2,660 |
| **Total** | **$14,939** | **$11,546** | **n/a** | **$26,485** |
| | | **SERS and PSERS** | | |
| **Grand Total** | **$19,807** | **$11,546** | **$7,210** | **$38,563** |

# HR 299 Question VII

# Health and Welfare of Retirees

# VII. HEALTH AND WELFARE OF RETIREES

## Pre-Retirement vs. Post-Retirement Income

When considering a potential ERIP, it is appropriate to begin by considering the amount of final salary that would be replaced by retirement income for employees who elect to retire under the ERIP. With the increase in benefits in 2001, a Class AA member of SERS and a Class TD member of PSERS can retire with a pension of 75% or higher if he or she has 30 or more years of service, even before considering retirement income from Social Security that could commence as early as age 62, or personal savings.

When considering a potential COLA, it is appropriate to begin by considering the amount of final salary that was replaced by retirement income and the elapsed time in retirement. Prior COLAs granted to members of SERS and PSERS were on an ad-hoc basis and took into account the time since retirement or the most recent COLA in their formula, granting larger increases to members who had been retired longer and thus had lost more ground to inflation.

While retirees may have accumulated personal savings during their working career (for example through an employer-sponsored deferred compensation plan), we will begin by looking at the retirement income provided by SERS (Class AA) and PSERS (Class TD), and from Social Security, to the following three hypothetical active members retiring in 2006:

Member A: Age 62 with 35 years of service
Member B: Age 62 with 20 years of service
Member C: Age 55 with 35 years of service

To develop salaries for these hypothetical employees we reviewed the SERS and PSERS valuation census data files of active members and selected a member with above-median pay (approximately 75th percentile) and a member with below median pay (approximately 25th percentile) for each age/service combination. While the percentage of salary replaced by the system pension benefit depends on length of service, the Social Security benefit also depends on the absolute level of pay.

The analysis below assumes that these members retire at the age/service combination shown with no future earnings, and that all members elect to commence receiving Social Security benefits at age 62. Final average three year pay used to calculate the retirement system benefit is assumed to be 95% of the final salary shown. Member B is assumed to have 20 years of work history only, with no earnings prior to joining the system. Prior years salaries are assumed to decrease based on the current valuation assumptions of 3.5% and 6.25% annually for SERS and PSERS, respectively. In this example this results in a SERS member being assumed to receive a higher Social Security benefit than a corresponding PSERS member with the same age/service combination and current pay, as the SERS member would have higher pay in prior years.

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SERS Ratio of Retirement Income to Final Salary for Hypothetical Retirees

| | | | Percent of Final Salary Replaced | | |
|---|---|---|---|---|---|
| Member | Age/Service | Final Salary | System Benefit | Estimated Social Security Benefit | Total |
| A | 62/35 | 100,000 | 83% | 18% | 101% |
| A | 62/35 | 50,000 | 83% | 31% | 114% |
| B | 62/20 | 80,000 | 48% | 18% | 66% |
| B | 62/20 | 50,000 | 48% | 21% | 69% |
| C | 55/35 | 50,000 | 83% | 38% | 121% |
| C | 55/35 | 40,000 | 83% | 43% | 126% |

PSERS Ratio of Retirement Income to Final Salary for Hypothetical Retirees

| | | | Percent of Final Salary Replaced | | |
|---|---|---|---|---|---|
| Member | Age/Service | Final Salary | System Benefit | Estimated Social Security Benefit | Total |
| A | 62/35 | 80,000 | 83% | 20% | 103% |
| A | 62/35 | 50,000 | 83% | 25% | 108% |
| B | 62/20 | 50,000 | 48% | 18% | 66% |
| B | 62/20 | 20,000 | 48% | 25% | 73% |
| C | 55/35 | 80,000 | 83% | 25% | 108% |
| C | 55/35 | 50,000 | 83% | 31% | 114% |

Members A and C basically retire with 100% or more of final salary from the combination of system and Social Security benefits. Member B receives a lower system benefit than the other members due to shorter service. Due to the design of the Social Security Benefit delivering a larger percentage benefit as pay decreases, Member B receives roughly the same Social Security benefit as Member A since the decrease in percentage due to less service is offset by an increase in percentage due to lower pay.

Studies have suggested that retirees should aim to replace 70 to 80% of pre-retirement income to maintain a similar lifestyle in retirement. (The availability of employer-paid retiree healthcare such as that provided to SERS members through the PEBTF REHP

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alleviates significant pressure on a retired member's income.) Given that Social Security provides an annual automatic COLA, Member A, who retires with an initial total benefit of about 100% of final salary, 20% of which is from Social Security, would not be expected to have the total retirement income erode to an inflation-adjusted 80% of final salary for over a decade. Thus if the goal of the automatic COLA were to afford long service retirees a combined system/Social Security benefit equivalent to 80% or more of the purchasing power of their final salary in each future year, the analysis above indicates that based on the current system benefit levels it is possible to achieve this inflation protection with a COLA that does not commence until a member has been retired for a decade or more.

**Research regarding the Health and Welfare of Retirees**

Information and tools for retirement planning have increased exponentially in anticipation of the first baby boomers approaching retirement. While little has been written about the life style changes that specifically affect those who take early retirement, there is sufficient information on retirement in general to conclude that early retirees will face the same issues, and significantly, they will face them over a longer period of time. The most satisfied retirees are those who made the decision to retire themselves, versus those who were laid off or who retired for medical reasons. And, the best adjustment to retirement is made by those who have considered what resources they needed for their retirement years.

I. LIFE EXPECTANCY

"One controversial variable that has been studied in connection with early retirement is mortality. On the one hand, the relationship between early retirement and mortality would seem to follow logically from the relationship between retirement, subjective health assessments and survival probabilities – if one feels one's health is poor and one is unlikely to live long in retirement, early retirement would seem to be a reasonable choice. . . . Waldron (2001, 2002) is the most recent researcher to document that early retirees die earlier than those who wait until NRA to claim benefits. . . . Waldron found that men retiring exactly at age 62 were 38 percent more likely to die during the observation period (1973 to 1997) than those retiring at age 65 or older. Those who retired exactly at age 62 also had a higher mortality risk than even other groups who retired after 62 but before age 65, suggesting that there may be a particularly unhealthy or shorter-lived group who claim benefits at the earliest opportunity." Source: "Is Early Retirement Ending?," p. 20, *AARP Policy Report* #2004-10, October 2004 at: www.aarp.org/ppi

A more recent study of former Shell Oil employees who retired at ages 55, 60, and 65, found that "even men who retired early for reasons other than illness and who appeared to be relatively advantaged and healthy had a significantly increased risk of mortality compared with men who remained continuously employed."

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Source: "Age at Retirement and Long Term Survival of an Industrial Population: Prospective Cohort Study," *British Medical Journal*, 21 October 2005 at: http://bmj.bmjjournals.com/content/vol331/issue7523/

II. SPENDING IN RETIREMENT

"Although three-fourths of retirees reported no surprise in their post-retirement spending requirements, the majority of the other 25% was surprised that spending needs were higher, rather than lower, than previous expected. The authors found a strong correlation between the amounts of time a person spent developing a financial plan and the accuracy of his or her estimates of spending needs at retirement." Source: "Reducing the Negative Surprises in Retirement," by Mimi Lord, TIAA-CREF Institute, January 2002 at:
http://www.tiaa-crefinstitute.org/research/articles/011202.html

III. LONG-TERM CARE

The American Council on Life Insurers "estimated that about half the women and a third of the men in American ultimately will require at least some nursing home care. The average annual cost of nursing home care exceeded $50,000 per person in 2002. Because the costs are so large and so common, they should be considered as part of the retirement needs equation and not relegated to discussions about health care costs." Source: "Will Today's Workers Retire with Adequate Income? How Are Today's Retirees Surviving from a Financial Perspective?," *EBRI Notes*, April 2003, p. 4

IV. WORKING/VOLUNTEERING IN RETIREMENT

An Employee Benefits Research Institute survey found that two-thirds of workers (66 percent) said they expect to work for pay in retirement, and 70% of those who expect to work identified at least one financial motive for working. However, only about one-quarter of retirees report actually working for pay during retirement. Source: EBRI's "2005 Retirement Confidence Survey," p. 25, at: http://www.ebri.org/pdf/briefspdf/0405ib.pdf

A survey by the John J. Heldrich Center for Workforce Development at Rutgers University found that about two-thirds of workers view retirement from a full-time job as an opportunity for continued productive employment. Nearly 7 in 10 workers expect to continue to work full time or part time following retirement from their main job, including 15% who expect to start their own business. Only 13% expect to stop working entirely. . . . In fact, among today's workers who are retired but still in the workforce, 54% went back to work because they needed income." Source: "A Work-Filled Retirement: Workers' Changing Views on Employment and Leisure," *WorkTrends*, John J. Heldrich Center for Workforce Development, August 2005, p. 1-2, at: http://www.heldrich.rutgers.edu/Resources/Publication/191/WT16.pdf

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V. ATTITUDES

EBRI's study found almost equal numbers of retirees who said they are now more concerned (45 percent) about their financial future than they were immediately after they stopped working and those (44 percent) who said they were less concerned. Seventy-one percent said their retirement income is "adequate," while 17 percent said they were struggling. Source: EBRI's "2005 Retirement Confidence Survey," at: http://www.ebri.org/pdf/briefspdf/0405ib.pdf

A study by Cornell University's Gerontology Research Institute found "men and women have different patterns when it comes to retirement planning, the transition to retirement, and the factors that are linked to life quality in retirement. . . . The transition to retirement is rocky for both genders, and especially tough on marriages when the husband retires first. Once retired, higher life quality is linked to factors such as retiring according to plan, good health, and for men especially, having a postretirement job. . . . The more that the retirees report they had planned for retirement, the higher they rate their retirement experience." Source: "His and Her Retirement? The Role of Gender and Marriage in the Retirement Process," *Roybal Issue Brief*, available at: www.applied-gerontolgoy.org

Along these lines, there has been recent publicity about "retired husband syndrome" (RHS), first identified in Japan. "Retired husbands in Japan are making their wives sick. Exiled from the workplace and a rigid corporate culture of command and control, these mini-martinets turn on their wives, barking orders, nitpicking every detail of dinner, demanding service. Living under that kind of stress leads to illness. Symptoms include stomach ulcers, rashes, throat polyps, slurred speech. So many wives of retired men were turning up with stress-related illness that physicians in Japan started calling it retired husband syndrome." Source: "When Spouse Retires, Real Work Begins," by Abigail Trafford, *The Washington Post*, 10/25/2005, HE06

The Society of Actuaries has surveyed public attitudes toward retirement and awareness of possible risks. The Society has published an overview of post-retirement risks." These include: the risk of outliving assets, loss of a spouse, declining functional status, large out-of-pocket medical expenses, inflation and other family members needing assistance. A chart provides examples of products that may be used to partially offset these risks. SOURCE: "Post-Retirement Risks – Changing Needs and Resources," November 2004 at: http://www.soa.org/ccm/cms-service/stream/asset?asset_id=7929033&g11n

"In particular, people in better health and with more financial resources tended to be more satisfied. Controlling for the present value of retirement resources and other factors, we find that retirees who could finance more of their consumption in retirement with pension annuities (vs. Social Security and accumulated savings) were more satisfied. Retirees with lifelong annuities also tended to maintain their level of satisfaction during retirement, whereas those without tended to become less satisfied over time." Source: Abstract of "Annuities and Retirement Well-Being,"

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# VII. HEALTH AND WELFARE OF RETIREES

Pension Research Council Working Paper, The Wharton School, University of Pennsylvania at: http://prc.wharton.upenn.edu/prc/PRC/WP/WP2003-19.pdf



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# APPENDIX A

# SUMMARY OF PROJECTED FUNDING UNDER CURRENT LAW

# SUMMARY OF PROJECTED FUNDING UNDER CURRENT LAW

## Projected Unfunded Accrued Actuarial Liabilities for SERS under Current Law before any Benefit Improvements
($ in billions)

| Calendar Year | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|---|---|---|---|
| **LIABILITIES** | | | | | | | | | | |
| (1) Actuarial Accrued Liability (beginning of year) | 30.1 | 31.5 | 32.9 | 34.4 | 36.0 | 37.5 | 39.1 | 40.8 | 42.4 | 44.1 |
| (2) Normal Cost | 0.8 | 0.8 | 0.8 | 0.9 | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 | 1.1 |
| (3) Benefit Payments | (1.9) | (2.0) | (2.1) | (2.3) | (2.4) | (2.6) | (2.7) | (2.8) | (3.0) | (3.2) |
| (4) Interest on (1), (2), (3) | 2.5 | 2.6 | 2.8 | 3.0 | 3.0 | 3.3 | 3.4 | 3.4 | 3.7 | 3.9 |
| (5) Actuarial Accrued Liability (end of year) (1) + (2) + (3) + (4) | 31.5 | 32.9 | 34.4 | 36.0 | 37.5 | 39.1 | 40.8 | 42.4 | 44.1 | 45.9 |
| **ASSETS** | | | | | | | | | | |
| (6) Actuarial Value of Assets (beginning of year) | 26.6 | 27.2 | 28.9 | 30.0 | 30.9 | 31.7 | 32.4 | 33.6 | 35.4 | 37.1 |
| (7) Employer Contributions | 0.2 | 0.3 | 0.3 | 0.2 | 0.3 | 0.3 | 0.8 | 1.3 | 1.4 | 1.4 |
| (8) Member Contributions | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 |
| (9) Benefit Payments | (1.9) | (2.0) | (2.1) | (2.3) | (2.4) | (2.6) | (2.7) | (2.8) | (3.0) | (3.2) |
| (10) Investment Return on (6), (7), (8), (9) | 2.2 | 2.3 | 2.4 | 2.5 | 2.6 | 2.6 | 2.7 | 2.8 | 3.0 | 3.1 |
| (11) Gain/Loss recognized | (0.2) | 0.8 | 0.1 | 0.1 | (0.1) | 0.0 | 0.0 | 0.1 | (0.1) | (0.1) |
| (12) Actuarial Value of Assets (end of year) (6) + (7) + (8) + (9) + (10) + (11) | 27.2 | 28.9 | 30.0 | 30.9 | 31.7 | 32.4 | 33.6 | 35.4 | 37.1 | 38.8 |
| **UNFUNDED LIABILITIES / FUNDED STATUS** | | | | | | | | | | |
| (13) Unfunded Actuarial Accrued Liability (end of year) (5) - (12) | 4.3 | 4.0 | 4.4 | 5.1 | 5.8 | 6.7 | 7.2 | 7.0 | 7.0 | 7.1 |
| (14) Funded Status (end of year) (12) / (5) | 86% | 88% | 87% | 86% | 85% | 83% | 82% | 83% | 84% | 85% |

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# SUMMARY OF PROJECTED FUNDING UNDER CURRENT LAW

Projected Assets and Liabilities for SERS under Current Law before any Benefit Improvements

# SUMMARY OF PROJECTED FUNDING UNDER CURRENT LAW

Projected Annual Asset and Liability Increases for SERS under Current Law before any Benefit Improvements

Dollars (billions): 6.0, 5.0, 4.0, 3.0, 2.0, 1.0, 0.0

2006 2007 2008 2009 2010 2011 2012 2013 2014 2015

Calendar Year

increase in assets | increase in liability

Increase in assets = employer and member contributions, plus expected investment income on fund
Increase in liability increase = normal cost, plus interest on liability
Benefit payments reduce both assets and liabilities concurrently

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# SUMMARY OF PROJECTED FUNDING UNDER CURRENT LAW

Projected Annual Investment Income versus Interest Growth on Liabilities for SERS
under Current Law before any Benefit Improvements





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## SUMMARY OF PROJECTED FUNDING UNDER CURRENT LAW

Employer Contribution versus Employer Normal Cost for SERS under Current Law before any Benefit Improvements

Dollars (billions)

1.600
1.400
1.200
1.000
0.800
0.600
0.400
0.200
0.000

2006 2007 2008 2009 2010 2011 2012 2013 2014 2015

Calendar Year

employer contribution | employer normal cost

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## SUMMARY OF PROJECTED FUNDING UNDER CURRENT LAW

Projected Unfunded Accrued Actuarial Liabilities for PSERS under Current Law before any Benefit Improvements
($ in billions)

| Fiscal Year End | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|---|---|---|
| **LIABILITIES** | | | | | | | | | | |
| (1) Actuarial Accrued Liability (beginning of year) | 63.8 | 66.6 | 69.4 | 72.1 | 74.8 | 77.4 | 80.0 | 82.5 | 85.1 | 87.7 |
| (2) Normal Cost | 1.7 | 1.7 | 1.8 | 1.8 | 1.9 | 1.9 | 2.0 | 2.1 | 2.1 | 2.2 |
| (3) Benefit Payments | (4.1) | (4.4) | (4.7) | (5.1) | (5.4) | (5.7) | (6.0) | (6.2) | (6.5) | (6.7) |
| (4) Interest on (1), (2), (3) | 5.2 | 5.5 | 5.6 | 6.0 | 6.1 | 6.4 | 6.5 | 6.7 | 7.0 | 7.1 |
| (5) Actuarial Accrued Liability (end of year) (1) + (2) + (3) + (4) | 66.6 | 69.4 | 72.1 | 74.8 | 77.4 | 80.0 | 82.5 | 85.1 | 87.7 | 90.3 |
| **ASSETS** | | | | | | | | | | |
| (6) Actuarial Value of Assets (beginning of year) | 51.7 | 53.7 | 56.5 | 58.3 | 59.6 | 60.7 | 61.6 | 64.6 | 67.6 | 70.6 |
| (7) Employer Contributions | 0.6 | 0.7 | 0.7 | 0.6 | 0.6 | 0.6 | 2.9 | 2.9 | 2.8 | 2.8 |
| (8) Member Contributions | 0.9 | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 | 1.1 | 1.1 | 1.1 | 1.2 |
| (9) Benefit Payments | (4.1) | (4.4) | (4.7) | (5.1) | (5.4) | (5.7) | (6.0) | (6.2) | (6.5) | (6.7) |
| (10) Investment Return on (6), (7), (8), (9) | 4.3 | 4.4 | 4.7 | 4.8 | 4.9 | 5.0 | 5.2 | 5.4 | 5.6 | 5.9 |
| (11) Gain/Loss recognized | 0.3 | 1.2 | 0.2 | 0.0 | 0.0 | 0.0 | (0.2) | (0.2) | 0.0 | (0.2) |
| (12) Actuarial Value of Assets (end of year) (6) + (7) + (8) + (9) + (10) + (11) | 53.7 | 56.5 | 58.3 | 59.6 | 60.7 | 61.6 | 64.6 | 67.6 | 70.6 | 73.6 |
| **UNFUNDED LIABILITIES / FUNDED STATUS** | | | | | | | | | | |
| (13) Unfunded Actuarial Accrued Liability (end of year) (5) - (12) | 12.9 | 12.9 | 13.8 | 15.2 | 16.7 | 18.4 | 17.9 | 17.5 | 17.1 | 16.7 |
| (14) Funded Status (end of year) (12) / (5) | 81% | 81% | 81% | 80% | 78% | 77% | 78% | 79% | 81% | 82% |

# SUMMARY OF PROJECTED FUNDING UNDER CURRENT LAW

Projected Assets and Liabilities for PSERS under Current Law before any Benefit Improvements





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# SUMMARY OF PROJECTED FUNDING UNDER CURRENT LAW

Projected Annual Asset and Liability Increases for PSERS under Current Law before any Benefit Improvements

Dollars (billions)

12.0
10.0
8.0
6.0
4.0
2.0
0.0

2007 2008 2009 2010 2011 2012 2013 2014 2015 2016

Fiscal Year End

increase in assets | increase in liability

Increase in assets = employer and member contributions, plus expected investment income on fund
Increase in liability increase = normal cost, plus interest on liability
Benefit payments reduce both assets and liabilities concurrently

# SUMMARY OF PROJECTED FUNDING UNDER CURRENT LAW

Projected Annual Investment Income versus Interest Growth on Liabilities for PSERS
under Current Law before any Benefit Improvements

Dollars (billions)

8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0

2007 2008 2009 2010 2011 2012 2013 2014 2015 2016

Fiscal Year End

expected investment income ▨ interest growth on liabilities



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Employer Contribution versus Employer Normal Cost for PSERS under Current Law before any Benefit Improvements





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# APPENDIX B

# COLA PROVISIONS IN OTHER STATEWIDE RETIREMENT SYSTEMS

# COLA Provisions in Other Statewide Retirement Systems

The following pages in this Appendix are excerpted from the National Education Association's November 2004 report titled "Characteristics of Large Public Education Pension Plans". The excerpted pages 40 through 50 comprise Section 4 of the report, "Post-Retirement Considerations", which discusses COLAs and summarizes the provisions of state-wide systems.

Milliman has received permission from the National Education Association to reprint these following pages for the purpose of providing this Appendix material to the Pennsylvania Legislative Budget and Finance Committee.

# Characteristics of Large Public Education Pension Plans

NEA Collective Bargaining

& Member Advocacy

202.822.7080

The National Education Association (NEA) is the nation's largest professional employee organization, representing 2.7 million elementary and secondary teachers, higher education faculty, education support professionals, school administrators, retired educators, and students preparing to become teachers.

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While every attempt was made to ensure the accuracy of the data in this report, it is possible that errors have occurred. Please communicate reports of any errors, comments you may have about the report, and updates to: Nancy McKenzie, NEA Collective Bargaining & Member Advocacy Department, 1201 16th Street, N.W., Washington, D.C. 20036, or by email to: nmckenzie@nea.org.

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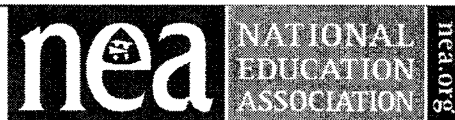



*Great Public Schools for Every Child*

# 4. Post-Retirement Considerations

The amount of benefits received at retirement does not always reflect the full value of those benefits to any individual retiree. The real value of the benefits is measured by their purchasing power during the retirement years as well as by their tax treatment. Each of these factors affects the value of benefits after retirement. For example, Social Security benefits are indexed to changes in the Consumer Price Index (CPI) to protect against the erosion of their value over time, and Social Security benefits are at least partially exempt from federal and state income taxes.[6]

Similarly, the retirement benefits provided by a number of plans in this survey have some inflation protections built into the design of the plan and may also be partially or, in some cases, wholly exempt from state income taxes. However, as shown in Table 4, the method of retirement income inflation protection afforded by each plan, and the tax treatment of retirement benefits for state income tax purposes, vary widely among plans and taxing jurisdictions.

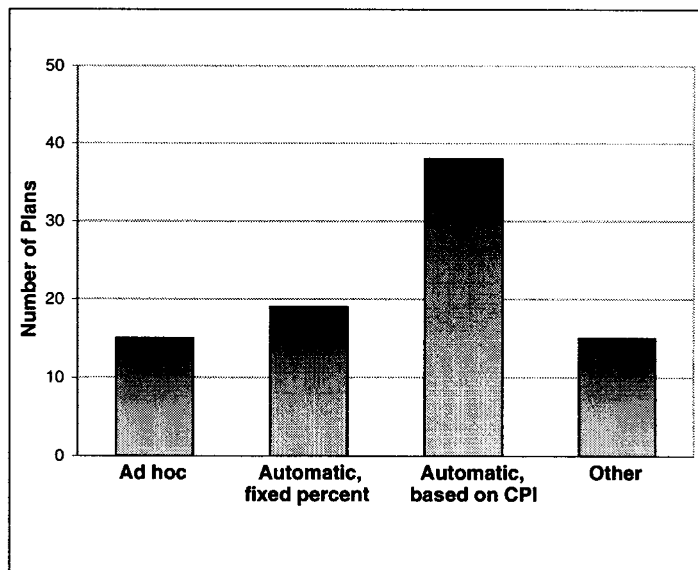
## COLAs

Cost-of-living adjustments (COLAs) represent an attempt to check the purchasing power of pensions lost due to inflation. In 15 of the plans reviewed, COLAs were wholly discretionary, sometimes called "ad hoc COLAs." In these cases, ad hoc increases may be granted from time to time by the state legislature. These increases may apply to retirees equally across the board, or larger adjustments may be directed to longtime retirees for whom the retirement benefit's purchasing power has declined by the greatest amount. For example, a 3 percent benefit adjustment might be adopted for retirees who have retired within the last two years, while a 6 percent adjustment may be applied to retirees who have been retired for longer than two years.

A few other retirement plans rely wholly on another form of irregular adjustment – payments based on the investment experience of the plan. Under these approaches, no adjustment takes place unless the plan has a sufficiently favorable investment experience. For example, the Wisconsin Retirement System provides for supplemental adjustments in benefits when investment earnings in excess of the actuarially assumed rate produce a surplus in the annuity reserve.

In contrast to such discretionary approaches, 57 plans either automatically provide for a fixed rate of adjustment (typically 3 percent) or a floating rate tied to changes in the Consumer Price Index (typically with a 3 percent ceiling on the rate of adjustment). Figure 7 shows the number of plans that offer the discretionary methods of adjustment and the automatic adjustment approaches described above. (Note that if a plan has an ad hoc and some other type of COLA, Figure 7 classifies it under "Other.") Summary Chart 3 looks at this issue in terms of plan size. The majority of plans of any size have automatic COLAs. Yet, these summary descriptions do not adequately capture the rich variety of COLA approaches adopted by the plans studied. For example, some plans employ an automatic adjustment on the low end of the typical range, but also add a discretionary excess investment provision as a supplement. Other plans have a multipart automatic adjustment, with a small, fixed amount, such as 1 percent, being guaranteed and a further adjustment based on changes in the CPI up to a stated ceiling. Two plans are defined contribution plans, which provide no COLA. Table 4 and its explanatory footnotes provide additional details on these variations in COLA approaches.

**Figure 7. Types of Retirement COLAs**




[6] Tax treatment varies by income level and taxing jurisdiction.

## Summary Chart 3.

**COLAs by Plan Size**

| | Automatic COLAs | Ad Hoc COLAs | Other Types of COLAs | No COLAs* |
|---|---|---|---|---|
| Plan Size | | | | |
| Active Members | | | | |
| Fewer than 100,000 | 38 | 9 | 11 | 2 |
| 100,000 or more | 19 | 6 | 4 | 0 |

* Both are defined contribution plans which provide no COLAs.

### Special COLA Features

A number of states have devised additional COLA-type features. Several states have enacted purchasing power protection. This protection guarantees that the value of a retiree's benefit can never be lower than some percentage of its value when his/her retirement first began. In California, for example, the rate of guarantee is 80 percent, whereas in Nebraska, it is 75 percent. Those retired longest likely have lost the most purchasing power and they would be entitled to a higher payment than those retired most recently.

Other states have 13th checks. Under this concept, retirees receive an additional payment if investment returns exceed a specified threshold. In years of high returns, the 13th check is paid. When investment gains are low or non-existent, the check is not paid. Retired teachers in Ohio, for example, have not received a 13th check since 2001 because of depressed returns.

Arizona has taken still another approach called the Enhanced Permanent Benefit Increase (EPBI). The EPBI provides benefit increases based on the total number of years since the individual's original retirement date. The funds for the EPBI are generated from the assumed earnings on the assets set aside for the Permanent Benefit Increase (PBI). The PBI is the yearly automatic COLA paid to Arizona retirees. The EPBI provides an additional boost to those retired longest and helps offset the cumulative effect of inflation on the value of their retirement benefits.

These innovative features can help retired teachers and ESPs preserve the value of their retirement benefits against inflation. They provide a range of ideas for affiliates and retiree associations that are looking for ways to enhance COLAs.

### State Income Tax Liability

The value of retirement benefits can also be affected by their after-retirement tax treatment under varying state income tax laws. The survey covers plans in 50 states plus the District of Columbia, for a total of 51 jurisdictions. Most jurisdictions (32) impose an income tax on part or all of retirement benefits. Such benefits in 10 jurisdictions are wholly exempt from state income taxes, while eight jurisdictions impose no state income tax. They are Alaska, Florida, Nevada, New Hampshire, South Dakota, Texas, Washington, and Wyoming. Tennessee does not tax income such as salaries and pensions, but does tax dividends and interest.

Table 4, which follows, provides information about COLAs, special COLA features, and data about the nature of applicable tax exemptions for retirement benefits.

## TABLE 4.
## Post-retirement Considerations

| State/Fund | COLA | Special Feature | State Taxation of Benefits |
|---|---|---|---|
| Alabama/TRS | Ad hoc | | Exempt |
| Alaska/PERS | If 65, smaller of 9% or 3/4 CPI; if 60, smaller of 6% or 1/2 CPI [1] | | No state income tax |
| Alaska/TRS | If 65, smaller of 9% or 3/4 CPI; if 60, smaller of 6% or 1/2 CPI [2] | | No state income tax |
| Arizona/ASRS | Investment surplus capped at 4% | Enhanced permanent benefit increase [3] | Up to $2,500 excludable |
| Arkansas/ATRS | Annual 3% | | Exempt to $6,000 |
| California/PERS | Up to 2% annually based on CPI [4] | Purchasing power protection [5] | Taxable |
| California/STRS | Annual 2% benefit improvement factor | Purchasing power protection [6] | Taxable |
| Colorado/PERA | Annual 3.5% | | ———— [7] |
| CO-Denver/DPSRS | Annual retirement adjustment allowance of 3.25% | | ———— [8] |
| Connecticut/CMERS | CPI with 2.5% minimum, 5% maximum [9] | | Taxable |
| Connecticut/TRS | Amounts depends on date of retirement [10] | | Taxable |
| Delaware/SEPP | Ad Hoc [11] | | Exempt to $12,500 [12] |
| District of Columbia/ DCPP | None | | Exempt to $3,000 |
| District of Columbia/TRF | ———— [13] | | Exempt to $3,000 |
| Florida/FRS | Annual 3% | | No state income tax |
| Georgia/TRS | Annual 3% (if approved by TRS board) | | Up to $15,000 excludable |
| Hawaii/ERS | Annual 2.5% [14] | | Exempt |
| Idaho/PERS | CPI up to 1% mandatory or CPI up to 6% discretionary | Gain sharing [15] | Taxable |
| Illinois/IMRF | Annual 3% | 13th Check [16] | Exempt |

**TABLE 4.**
## Post-retirement Considerations (Continued)

| State/Fund | COLA | Special Feature | State Taxation of Benefits |
|---|---|---|---|
| Illinois/TRS | Annual 3% on January 1 after they turn 61 | | Exempt |
| IL-Chicago/MEA&BF | Annual 3% [17] | | Exempt |
| IL-Chicago/PSTPRF | Annual 3% | | Exempt |
| Indiana/PERF | Ad hoc [18] | Purchasing power guarantee [19] | Taxable [20] |
| Indiana/TRF | Ad hoc [21] | Purchasing power guarantee [22] | Taxable [23] |
| Iowa/PERS | 100% of CPI up to 3% [24] | | Exempt to $6,000 [25] |
| Kansas/PERS | Ad hoc | | Exempt |
| Kentucky/CERS | CPI up to 5% | | Exempt to $39,400 [26] |
| Kentucky/TRS | Automatic 1.5% plus ad hoc | | Exempt to $39,400 [27] |
| Louisiana/SERS | ———— [28] | | Exempt |
| Louisiana/TRS | ———— [29] | | Exempt |
| Maryland/ECPS | CPI up to 3% | | Partial exemption [30] |
| Maryland/ERS | Unlimited CPI for 7% employee contribution; CPI up to 5% for 5% employee contribution option; CPI up to 3% for 2% employee contribution | | Partial exemption [30] |
| Maryland/TCPS | CPI up to 3% | | Partial exemption [30] |
| Maryland/TRS | Unlimited CPI for 7% employee contribution; CPI up to 5% for 5% employee contribution option; CPI up to 3% for 2% employee contribution | | Partial exemption [30] |
| Massachusetts/TRS | Ad hoc [31] | | Exempt |
| Michigan/MPSERS | Annual 3% [32] | | Exempt |
| Minnesota/PERA | CPI up to 2.5% + investment surplus [33] | | Taxable [34] |
| Minnesota/TRA | CPI up to 2.5% + investment surplus [35] | | Taxable [36] |
| MN-Duluth/DTRFA | Annual 2% + investment surplus | | Taxable [37] |
| MN-Minneapolis/MTRFA | Annual 2% + investment surplus [38] | | Taxable [39] |

**TABLE 4.**
## Post-retirement Considerations (Continued)

| State/Fund | COLA | Special Feature | State Taxation of Benefits |
|---|---|---|---|
| MN-St. Paul/SPTRFA | Annual 2% + investment surplus [40] | | Taxable [41] |
| Mississippi/PERS | ——————————— [42] | | Exempt |
| Missouri/NTRS | CPI up to 5%; lifetime COLAs limited to 80% of original benefit | | Exempt to $6,000 |
| Missouri/PSRS | CPI up to 5%; lifetime COLAs limited to 80% of original benefit | | Exempt to $6,000 |
| MO-Kansas City/PSRS | CPI up to 3% | 13th Check [43] | |
| MO-St. Louis/PSRS | Ad hoc [44] | | Exempt to $6,000 |
| Montana/PERS [45] | Guaranteed annual adjustment of 3% | | Exempt to $3,600 |
| Montana/TRS [46] | Guaranteed annual adjustment of 1.5% | | Exempt to $3,600 |
| Nebraska/SRS | CPI up to 2.5% | Purchasing power guarantee [47] | Taxable |
| NE-Omaha/OSERS | Automatic 1.5% plus ad hoc [48] | | Taxable |
| Nevada/PERS | CPI varying from 0 to 5% [49] | | No state income tax |
| New Hampshire/ NHRS(Group 1) | Ad hoc [50] | | No state income tax |
| New Jersey/PERS | 60% of change in CPI | | Exempt to $15,000 single, $20,000 married |
| New Jersey/TPAF | 60% of change in CPI | | Exempt to $15,000 single, $20,000 married |
| New Mexico/ERB | 50% of change in CPI up to 4% [51] | | Taxable [52] |
| New York/ERS | 50% of change in CPI up to 3%, but at least 1% minimum [53] | | Exempt |
| New York/STRS | 50% of change in CPI up to 3%, but at least 1% minimum [54] | | Exempt |
| NY-New York City/BERS | 50% of change in CPI up to 3%, but at least 1% minimum [55] | | Exempt |
| NY-New York City/TRS | 50% of change in CPI up to 3%, but at least 1% minimum [56] | | Exempt |
| North Carolina/TSERS | Ad hoc [57] | | Exempt to $4,000 [58] |
| North Dakota/PERS | Ad hoc | | Taxable |
| Ohio/SERS | Annual 3% | | Tax credit [59] |
| Ohio/STRS | Annual 3% [60] | — [61] | Tax credit [62] |

**TABLE 4.**
## Post-retirement Considerations (Continued)

| State/Fund | COLA | Special Feature | State Taxation of Benefits |
|---|---|---|---|
| Oklahoma/TRS | Ad hoc | | Exempt to $5,500 |
| Oregon/PERS | CPI up to 2% plus ad hoc | | Tax credit [63] |
| Pennsylvania/PSERS | Ad hoc [64] | | Exempt |
| Rhode Island/ERS | Annual 3% [65] | | Taxable |
| Rhode Island/MERS | Annual 3% [66] | | Taxable |
| South Carolina/SCRS | CPI up to 4%, subject to board approval | | ——— [67] |
| South Dakota/SDRS | Annual 3.1 % | | No state income tax |
| Tennessee/CRS | CPI up to 3% | | Exempt [68] |
| Texas/TRS | Ad hoc | | No state income tax |
| Utah/SRS-noncontributory | CPI up to 4% | | ——— [69] |
| Vermont/MERS | 1/2 CPI up to 2% or 1/2 CPI to 3% [70] | | Taxable |
| Vermont/STRS | 3% (Group A) based on CPI; 1.5% (Group C) based on CPI [71] | | Taxable |
| Virginia/VRS | CPI up to 3% + 1/2 CPI between 3% and 7% up to total of 5% maximum | | ——— [72] |
| Washington/PERS Plan 1 | ——— [73] | | No state income tax |
| Washington/SERS (Plans 2 & 3) [74] | CPI up to 3% | | No state income tax |
| Washington/TRS (Plans 1) | ——— [75] | | |
| Washington/SERS (Plans 2 & 3) [76] | CPI up to 3% | | No state income tax |
| West Virginia/TDCP | None | | Exempt to $2,000 |
| West Virginia/TRS | Ad hoc | | Exempt to $2,000 |
| Wisconsin/WRS | Annually if investment income in excess of 5% | | Taxable [77] |
| Wyoming/WRS | CPI up to 3% | | No state income tax |

**Table 4.**
## FOOTNOTES

**1** Alaska PERS: Data in table is for automatic Post Retirement Pension Adjustment (PRPA); in addition, eligible benefit recipients who reside in Alaska receive the Alaska Cost of Living Allowance, which is equal to 10% of their base benefits or $50, whichever is more.

**2** Alaska TRS: Data in table is for automatic Post Retirement Pension Adjustment (PRPA); in addition, eligible benefit recipients who reside in Alaska receive the Alaska Cost of Living Allowance, which is equal to 10 percent of their base benefits.

**3** Arizona ASRS: Enhanced Permanent Benefit Increase (EPBI) provides benefit increases based on the total number of years since the individual's original retirement date. The EPBI is in addition to the Permanent Benefit Increase (PBI). Funds for the EPBI are generated from assumed earnings on the original funds set aside for the PBI. The EPBI is to provide an additional benefit to retirees based on years since retirement, thus helping offset the cumulative effects of inflation since retirement.

**4** California PERS: Data shown in table for state Tier 1 members and school members; also up to 5 percent maximum as contract option for retired members of local agencies.

**5** California PERS: The Purchasing Power Protection (PPP) is a supplementary benefit paid when a retiree's benefits fall below 75% of the purchasing power of his/her benefits at the time of retirement. By contrast, the STRS PPP is 80 percent.

**6** California STRS: The Purchasing Power Protection (PPP) is a supplementary benefit paid when a retiree's benefits fall below 80 percent of the purchasing power of his/her benefits at the time of retirement. By contrast, the PERS PPP is 75 percent.

**7** Colorado PERA: Up to $20,000 excludable if age 55–64; up to $24,000 excludable if age 65 or older.

**8** CO-Denver DPSRS: Up to $20,000 excludable if age 55–64; up to $24,000 excludable if age 65 or older.

**9** Connecticut CMERS: For municipal members retiring on and after January 1, 2002, the plan provides for a COLA ranging from a minimum of 2.5 percent to a maximum of 6 percent based on the following formula: 60 percent of the annual increase in the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) up to 6 percent plus 75 percent of the annual increase in the CPI-W above 6 percent, payable on the first July 1 following the retirement date and on each subsequent July 1. For retirees who are age 65 or older prior to January 1, 2002, the COLA is at least 3 percent up to a maximum of 5 percent, dependent on the fund's investment performance. For those members who retire prior to January 1, 2002 and are not 65 years of age, the plan provides for a temporary COLA in the amount of 2.5 percent payable effective July 1, 2002; this COLA will be payable on each subsequent July first until the July 1 following the members' 65th birthday at which time the COLA will revert to the 3 percent - 5 percent formula, which is tied to investment performance.

**10** Connecticut TRS: CPI with 3 percent minimum and 5 percent maximum for retirees prior to September 1, 1992. For retirees on or after September 1, 1992, the adjustment is equal to the Social Security COLA, up to a maximum of 6.00 percent. If the total return in TRS assets is less than 8.5 percent, the COLA will not exceed 1.50 percent. Also, if there are insufficient funds available in the system's Excess Earnings Account, the COLA may be reduced.

**11** Delaware SEPP: An ad hoc COLA, effective July 1, 2004, was granted to retired teachers, ESP, and other state and local government employees who retired on or before May 31, 2004. The rate of increase is 2 percent for pensions in effect after December 31, 1975. For pensions in effect before January 1, 1976, the rate of increase is 2 percent or $35 per month, whichever is greater.

**12** Delaware SEPP: Exempt to $2,000 below age 60.

**13** District of Columbia TRF: Participants hired before November 16, 1996 receive an annual benefit increase proportional to changes in the CPI; however, the increase may not exceed 3.00 percent for participants hired thereafter.

14 Hawaii ERS: For fiscal year 2002-2003, retirees aged 70 years or older with 20 or more years of service as of 7/30/2002 were granted a one-time, lump-sum pension bonus of $200.

15 Idaho PERS: In addition to the COLA, Idaho PERS provides for "gain sharing." At the close of each fiscal year, the board determines whether the fund has experienced extraordinary gains. Extraordinary gains are defined as the excess, if any, of plan assets over the plan's accrued actuarially determined liabilities plus a sum necessary to absorb one standard deviation market event without increasing contribution rates. Extraordinary gains can be allocated to retirees, to active members, and to employers in such proportion as determined by the board.

16 Illinois/IMRF: Each July, retirees who have been receiving benefits for at least one year receive a supplemental retirement benefit, known as a 13th check. The total supplemental benefit pool in each year is equal to 0.62 percent of the participating payroll for the previous year. An individual receives a pro-rata share of the total pool based upon the ratio of his/her individual benefits to the total benefits paid to all IMRF recipients.

17 IL-Chicago MEA&BF: COLA per year beginning at the earlier of: 1) the later of the third anniversary of retirement and age 53, or 2) the later of the first anniversary of retirement and age 60.

18 Indiana PERF: An ad hoc COLA, payable after December 31, 2004, was granted to PERF members who retired before January 1, 2004. The rate of increase is 2 percent.

19 Indiana PERF: In 1999 and 2000, a purchasing power guarantee was approved that ensured that the purchasing power of a retiree's pension was at least equal to 50 percent as of 1999 and to 57.4 percent as of 2000 of the purchasing power of his/her pension at retirement.

20 Indiana PERF: Deduction for disability pensions only.

21 Indiana TRF: An ad hoc COLA, payable after December 31, 2004, was granted to TRF members. The rate of increase depends on the date of retirement: 1 percent for those retired after July 1, 1996 and before July 2, 2002; 2 percent for those retired after July 1, 1978 and before July 2, 1996; and 3 percent for those retired before July 2, 1978.

22 Indiana TRF: In 1999 and 2000, a purchasing power guarantee was approved that ensured that the purchasing power of a retiree's pension was at least equal to 50 percent as of 1999 and to 57.4 percent as of 2000 of the purchasing power of his/her pension at retirement.

23 Indiana TRF: Deduction for disability pensions only.

24 Iowa PERS: COLA in table applies to members retiring prior to July 1, 1990; for those retiring after June 30, 1990, a "favorable experience dividend" paid if sufficient funds are available, also capped at 3 percent. The "favorable experience dividend" receives funding in years when the trust fund's total experience is positive with the intent of amassing a reserve sufficient so coverage can continue for those years when overall actuarial experience may not be favorable. The target "favorable experience dividend" is also 100 percent of CPI up to 3 percent, but it is not guaranteed.

25 Iowa PERS: Or $12,000 for married persons.

26 Kentucky CERS: Effective 1998 tax year, only that portion of the annuitant's benefit that is derived from service earned after 12/31/1997 is subject to state taxation, but with an annual exclusion amount set at $39,400 for 2003 and adjusted annually for inflation.

27 Kentucky TRS: Effective 1998 tax year, only that portion of the annuitant's benefit that is derived from service earned after 12/31/1997 is subject to state taxation, but with an annual exclusion amount set at $39,400 for 2003 and adjusted annually for inflation.

28 Louisiana SERS: If the board determines that investment earnings are sufficient, it may approve a COLA. The COLA is paid according to a formula that takes into account such factors as years of service credit and years since retirement.

29 Louisiana TRS: A COLA is paid if sufficient funds in the Experience Account exist. If there are sufficient funds, the COLA will equal an amount not to exceed the lesser of 2 percent or the Consumer Price Index for all urban

consumers (CPI-U) for the calendar year immediately preceding the cost-of-living increase when earnings are less than 8.25 percent. If the CPI-U is less than two percent, then the cost-of-living increase will be equal to the CPI-U increase for the prior calendar year. If there is no increase in the CPI-U, a COLA will not be given. If TRS earns a rate of return equal to or exceeding 8.25 percent, then the COLA is the lesser of 3 percent or the CPI-U, as long as there are sufficient funds in the Experience Account.

30 Maryland TRS, TCPS, ERS, ECPS, and EPS: Maximum exclusion is $18,500 less amount of Social Security benefits received.

31 Massachusetts TRS: The first $12,000 of a retiree's allowance is subject to a cost of living adjustment equal to 3 percent, which must be authorized annually by the Massachusetts General Court.

32 Michigan MPSERS: Data in table refer to Member Investment Plan; Basic Plan recipients receive a supplemental payment in those years when investment earnings exceed actuarial assumptions.

33 Minnesota PERA: Has two components like Minnesota TRA's program.

34 Minnesota PERA: Certain individuals age 65 and over who are low income qualify for a $9,600 exclusion (single filer) or $12,000 (joint filer), irrespective of whether income is from pension.

35 Minnesota TRA: The annual adjustment formula is based on two components – the increases in the cost of living as reflected by the Consumer Price Index (CPI), and the investment performance of the high quality bonds and stocks in the Post Fund portfolio. The cost-of-living component is guaranteed and paid up to a maximum of 2.5 percent based on the CPI increase determined at the end of each fiscal year for the preceding 12-month period. It is paid each year regardless of the amount of investment return. The potential for a greater annual adjustment is provided by the investment component that is based on investment returns in excess of the amount needed to pay for the cost-of-living component and to cover the 6 percent earnings assumption of the "Post Fund" (into which the dollars necessary to fund retirees' benefits are maintained) that determined the original benefit at retirement. The net gains of the investment component are added to the cost-of-living component to become the annual adjustment. The additional amount from the investment returns is not guaranteed.

36 Minnesota TRA: Certain individuals age 65 and over who are low income qualify for a $9,600 exclusion (single filer) or $12,000 (joint filer), irrespective of whether income is from pension.

37 MN-Duluth DTRFA: Certain individuals age 65 and over who are low income qualify for a $9,600 exclusion (single filer) or $12,000 (joint filer), irrespective of whether income is from pension.

38 MN-Minneapolis MTRFA: Annual 2 percent guaranteed increase plus additional increase based on 5-year annualized rate of return above 8.5 percent. Inasmuch as the 5-year annualized rate of return fell below 8.5 percent, the application of this formula resulted in no additional increase so that the total compounded COLA increase was limited to 2.00 percent payable January 1, 2003.

39 MN-Minneapolis MTRFA: Certain individuals age 65 and over who are low income qualify for a $9,600 exclusion (single filer) or $12,000 (joint filer), irrespective of whether income is from pension.

40 MN-St. Paul SPTRFA: Annual 2 percent guaranteed increase plus additional increase based on 5-year annualized rate of return above 8.5 percent. Inasmuch as the 5-year annualized rate of return fell below 8.5 percent, the application of this formula resulted in no additional increase so that the total compounded COLA increase was limited to 2.00 percent payable January 1, 2003.

41 MN-St. Paul SPTRFA: Certain individuals age 65 and over who are low income qualify for a $9,600 exclusion (single filer) or $12,000 (joint filer), irrespective of whether income is from pension.

42 Mississippi PERS: The allowances of retired members are adjusted annually by an amount equal to (1) 3 percent of the annual retirement allowance for each full fiscal year of retirement prior to the next year in which the member reaches age 55, plus (2) 3 percent compounded for each year thereafter beginning with the fiscal year in which the member turns age 55.

43 MO-Kansas City/PSRS: In 2004, retirees received a one-time benefit check of $800. This type of benefit is sometimes referred to as a "13th check."

44 MO-St. Louis PSRS: A 2.6 percent COLA was provided effective July 1, 2002.

45 Montana PERS: In the case of married taxpayers filing jointly, if both or one spouse is receiving pension income, the exclusion is reduced by $2 for every $1 of federal adjusted gross income in excess of $30,000.

46 Montana TRS: In the case of married tax payers filing jointly, if both or one spouse is receiving pension income, the exclusion is reduced by $2 for every $1 of federal adjusted gross income in excess of $30,000.

47 Nebraska SRS: In addition, a minimum floor benefit is provided of 75 percent of the purchasing power of the original retirement benefit. If a retiree's benefit does not exceed 75 percent of purchasing power, he/she receives an increase to bring him/her up to the purchasing power guarantee. If his/her benefit exceeds 75 percent of purchasing power, he/she receives the automatic COLA instead of the guarantee.

48 NE-Omaha OSERS: Medical COLA, commencing 10 years after retirement, $10 per month for each year of retirement, increasing by $10 each year to a maximum of $250 per month. For retirees with less than 20 years of service, the benefit is reduced proportionately.

49 Nevada PERS: No COLA during first 3 years of retirement; up to 2 percent after 3 years of retirement; up to 3 percent after 6 years of retirement; up to 3.5 percent after 9 years of retirement; up to 4 percent after 12 years of retirement; and up to 5 percent after 14 years of retirement.

50 New Hampshire NHRS: Effective July 1, 2003, teacher and state employee retirees who retired prior to July 1, 2002 received a 2.0 percent ad hoc COLA.

51 New Mexico ERB: COLA not to exceed 4 percent nor be less than 2 percent, unless change in CPI is less than 2 percent in which case COLA would equal change in CPI. Application begins in year the member attains or would have attained age 65.

52 New Mexico ERB: New Mexico has a tax deduction for certain individuals age 65 or over, but no specific tax preference on pension income.

53 New York ERS: COLA is applicable to the first $18,000 of pension income.

54 New York STRS: COLA is applicable to the first $18,000 of pension income.

55 NY-New York City BERS: COLA in table is for Coordinated Plan. COLA is applicable to the first $18,000 of pension income.

56 NY-New York City TRS: COLA is applicable to the first $18,000 of pension income.

57 North Carolina TSERS: An ad hoc COLA, effective July 1, 2004, was granted to TSERS members who retired on or before July 1, 2003. The rate of increase is 1.7 percent. Those who retire after 7/1/2003, but before 6/30/2004 will receive a prorated amount of the increase.

58 North Carolina TSERS: Generally exempt to $4,000; if retiree had 5 years of governmental service as of 8/12/1989, benefits are fully exempt pursuant to North Carolina Supreme Court decision.

59 Ohio SERS: Up to $200 credit based on taxable retirement income

60 Ohio STRS: COLA applied only to defined benefit plan, not to alternative combined plan or alternative defined contribution plan.

61 Ohio STRS: The STRS board has the authority to approve an annual lump-sum supplemental benefit check, sometimes referred to as a "13th check." Investment gains provide the funding. The 13th check has not been paid since 2001 because such gains have not been realized.

62 Ohio STRS: Up to $200 credit based on taxable retirement income.

63 Oregon PERS: Varies depending on amount of Social Security benefit received and household income level.

64 Pennsylvania PSERS: Legislation was passed in 2002 which granted two separate COLAs. The first COLA – for members who retired on or before July 1, 1990 – was effective on July 1, 2002; the date of retirement determines the amount of the COLA as follows: if retired before 7/2/1980, then the COLA is 25 percent; if retired during the period July 2, 1980 – July 1, 1983, then the COLA is 15 percent; if retired during the period July 2, 1983 – July 1, 1988 then the COLA is 10 percent; and if retired during the period July 2, 1988 – July 1, 1990, then the COLA is 8 percent. The second COLA – for members who retired after July 1, 1990 and on or before July 1, 2002 – was effective on 7July 1, 2003; the date of retirement determines the amount of the COLA as follows: if retired during the period July 2, 1990 – July 1, 1994, then the COLA is 9 percent; if retired during the period July 2, 1994 – July 1, 1998, then the COLA is 7.5 percent; if retired during the period July 2,1998 – July 1, 1999 then the COLA is 6.35 percent; if retired during the period July 2, 1999 – July 1, 2000 then the COLA is 4.87 percent; if retired during the period July 2, 2000 – July 1, 2001 then the COLA is 3.08 percent; and if retired during the period July 2, 2001 – July 1, 2002, then the COLA is 2.27 percent. The COLAs are similar in structure to the last COLA granted in 1998 and seek to provide at least half of CPI change to the eligible benefit recipients.

65 Rhode Island ERS: COLAs begin on the third January following an employee's retirement.

66 Rhode Island MERS: COLA received only if the employee's municipal group adopts this provision.

67 South Carolina SCRS: Up to $3,000 excludable if under age 65; up to $10,000 excludable if age 65 or older. Applies to any income, not just that from pension.

68 Tennessee CRS: State income tax applies to dividends and interest from certain stocks and bonds. Earned income, including that from pensions, is not subject to tax.

69 Utah SRS: Retirees may qualify for general retirement income exemption of up to $4,800 if under age 65 and $7,500 if over age 65, subject to reductions depending on the amount of adjusted gross income earned.

70 Vermont MERS: The maximum increase is 2 percent for Group A members and 3 percent for Group B, Group C, and Group D members. Members receiving early retirement benefits must be at least age 62 to be eligible for this adjustment; an exception to this rule is provided for Group C and Group D members whose normal retirement age is 55.

71 Vermont STRS: 3 percent for Group A; 1.5 percent for Group C. For Group C members receiving a reduced early retirement allowance, the adjustment will not apply before age 62. No one is in Group B.

72 Virginia VRS: Effective for all taxable years beginning on or after January 1, 1996, a deduction applies in the amount of $12,000 for taxpayers age 65 and older, or $6,000 for taxpayers age 62 through 64.

73 Washington PERS Plan 1: Two COLAs exist. The Uniform COLA increase is added every July. The amount varies, but is some dollar amount per month per year of service. The Gain Sharing COLA is added every even-numbered year if certain extraordinary investment gains are achieved.

74 Washington SERS Plan 3: No COLA for amounts in DC portion of Plan 3.

75 Washington TRS Plan 1: Two COLAs exist. The Uniform COLA increase is added every July. The amount varies, but is some dollar amount per month per year of service. The Gain Sharing COLA is added every even-numbered year if certain extraordinary investment gains are achieved.

76 Washington TRS Plan 3: No COLA for amounts in DC portion of Plan 3.

77 Wisconsin WRS: Benefits exempt from taxation only for individuals who were members or retirees of the retirement system prior to December 31, 1963.

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# APPENDIX C

# PERISCOPE ISSUE REGARDING IRC 415 AND COLAS


This report was prepared exclusively for the use and benefit of the Pennsylvania Legislative Budget and Finance Committee for a specific and limited purpose. It is a complex, technical analysis that assumes a high level of knowledge concerning the operations of the retirement systems and the insurance programs covering retired members, and uses data that Milliman has not audited. Any third party recipient of Milliman's work product who desires professional guidance should not rely upon Milliman's work product, but should engage qualified professionals for advice appropriate to its own specific needs.

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PERiScope
Public Employee Retirement Systems

JULY 2005

# IRS Proposes New Section 415 Regulations

by Erin Breyman

**On May 25, 2005, the IRS released proposed rules on the** retirement plan benefit and contribution limitations found in Internal Revenue Code §415, consolidating in one comprehensive document numerous statutory and regulatory pronouncements that have been issued since 1981. For governmental employers, the new regulations may change the maximum amounts that can be paid from defined benefit pension plans, as well as the amounts that can be contributed to defined contribution plans. This article will focus on provisions affecting defined benefit plans.

In addition to consolidating prior guidance, the regulations specifically address the following topics of interest to governmental retirement plans:

- **Adjustments for benefits that commence before age 62 or after age 65, and for payment forms other than a straight life annuity.** The regulations clarify the methods for determining these age-related adjustments, substantially limiting the increases for post-age 65 benefit commencement. On a positive note, the qualified joint and survivor portion of a benefit will be exempt, even if a portion of the benefit is paid in another form (such as a lump sum).

- **Automatic fixed rate cost-of-living adjustments (COLA).** The regulations confirm the IRS position that adjustments must be made in the maximum benefit limits when the benefit entitlement includes a fixed-rate COLA.

- **Special rules for employees of police departments and fire departments.** Prior IRS guidance provided that the maximum benefits payable to qualified police and firefighters were *not* reduced to reflect early commencement of benefits, provided that the member had at least 15 years of such service. Most governmental employers have applied this rule on a job-classification basis, considering the position's specific job responsibilities. The proposed regulations continue this exemption, but apply the rule to all employees of police departments and fire departments, and members of the Armed Forces, regardless of job classification. Similarly, the special rules do not apply to plan members who perform police or fire-related duties, but who are not specifically employed by a police or fire department.

- **Plans maintained by more than one employer.** It is not uncommon for public employee retirement systems to cover employees of multiple entities. The regulations make clear that the plan benefits earned from all employers participating in a single retirement system must be combined when applying the 415 limits.

- **Transfers from another plan, such as a 457 plan rollover.** The IRS clarified its rules regarding the treatment of rollovers, buybacks, employee contribution pick-ups, and transfers between plans. Pickups and buybacks are not treated as employee contributions. However, transferred amounts are generally treated as employee contributions—adding the benefit that was actually earned as a result of the transfer, and subtracting the IRS-determined benefit attributable to the transferred amount.

Note that the proposed regulations do not provide any specific additional guidance for governmental employers on the 1989 grandfather election, which allowed then-current employees an exemption from the 415 limitations (§415(b)(10)), excess benefit arrangements under §415(m), or the purchase of permissive service credits under §415(n). Comments to the IRS on these issues are requested.

## §415 Limitation Fundamentals

For years ending in 2005, the basic §415 ceiling on employer-provided benefits is $170,000, payable as an annual amount for the lifetime of the member, with benefits commencing at any time from ages 62 through 65. Adjustments are made in the ceiling to reflect primarily: a) a pre-62 or post-65 benefit commencement date; and b) benefits that are not paid in the form of a straight life annuity. Certain distributions are exempt if paid in the form of a joint and survivor annuity with the spouse as the named beneficiary (a qualified joint and survivor annuity, or QJSA).

## Adjustments for Early or Late Commencement

The proposed regulations determine benefit limits based on both the plan-defined adjustments for early and late benefit commencement, and adjustment factors based on assumptions specified by the IRS. The actual §415 ceiling is then the lesser of these two amounts. The regulations make clear that the plan's early retirement benefit reductions must be considered, even for plans that determine benefits based on a table of factors that incorporates both age and service, rather than specific early retirement reduction factors.

While the proposed regulations continue to provide increased limits when benefits commence after age 65, the increase is allowed only if the plan increases benefits to reflect the deferred retirement age. For example, if a plan member retiring at age 70 would receive the same benefit amount as a 65-year-old member with the same salary and service history, then the maximum benefit payable in 2005 would remain at $170,000, and would not be increased to reflect benefit commencement after age 65.

### Adjustments for Alternative Forms

A plan must adjust the benefit ceiling to take into account benefits paid in a form other than a straight life annuity or a QJSA, including any temporary Social Security supplement.

In one major reversal of IRS's previous informal position, a plan need not make an adjustment for any portion of a benefit paid in the form of a QJSA, even if part of the accrued benefit is paid in a form for which adjustment is necessary. Previous IRS guidance indicated that if a member withdrew a portion of benefits in one form, such as a partial lump sum in a DROP plan, then any remaining portion paid in the form of a QJSA would not have been eligible for an exemption from adjustment and thus would have been subject to a reduced limit.

### Adjustments for Automatic Cost-of-Living (COLA)

Relying on previous regulatory guidance, many retirement plans—whether governmental or non-governmental—made no special adjustment to the §415 ceiling to recognize an automatic COLA feature. The proposed regulations confirm the IRS position that a fixed automatic COLA is an alternative benefit form that is not exempt from limitation adjustments. Thus, the §415 limitation applicable to the initial payments with the COLA feature must be the reduced amount that is the actuarial equivalent of a non-increasing straight life annuity. Instead of $170,000, the 2005 limitation for a pension commencing at age 65 with a 2% automatic COLA feature would be about $140,000 under typical actuarial assumptions.

A recent IRS private letter ruling stated that if a plan had not made adjustments for an automatic COLA for making past distributions, then corrections must be made in order to preserve the qualified status of the plan. Generally, corrections in §415 limit calculations are made by adjusting future payments. Due to the "double" increase characteristic of COLA-adjusted §415 limits (annual COLA increase as well as the increase in the §415 limitation itself), it is unlikely that corrections would be necessary for any members who retired earlier than 10 years ago; and any corrections to members who retired within the past 10 years would usually be required for a brief transition period until the double increase catches up with the benefit levels that had been originally calculated.

The proposed IRS regulations deal specifically with a plan that provides an automatic fixed rate COLA, independent of any variable index or any other contingency, but do not specifically address the status of §415 calculations for a plan with an automatic COLA that is not set at a fixed rate. However, prior IRS guidance and longstanding practice indicate that no advance adjustment would need to be made to §415 benefit limitations to recognize any COLA that is not automatic, such as ad hoc COLA's or COLA's that are tied to increases in an outside index such as the CPI. Rather, any such increase is tested against the §415 limit in effect for a particular member in the year that the increase is granted by the plan. This position is supported by examples provided in the proposed regulations.

### Effective Date

The proposed regulations generally would apply to limitation years beginning on or after January 1, 2007. A special rule allows plans to immediately permit contributions to continue for active members on leave due to military service. Plan provisions that change after May 31, 2005 would be required to conform to the new rules. Additional IRS guidance will be needed if statutory provisions scheduled to sunset after 2010 are not repealed.

### Practical Implications

Retirement systems should immediately review the proposed regulations in connection with the design and operation of their plans. Any comments to the IRS regarding the proposed rules must be submitted by July 25, 2005.

The proposed regulations may be of particular concern to any retirement systems that:

- provide annuity benefits with an automatic fixed-rate COLA feature,
- determine benefits based on a table of factors for different age and service combinations, without specific early retirement reduction factors,
- continue benefit accruals after age 65, but do not apply an additional actuarial increase to reflect delayed commencement of benefits, or
- rely on the exemptions for police and fire employees, determining qualified plan members on a job-classification basis.

Any plan provisions that change after May 31 should be reviewed for compliance with the new rules. Plan amendments and/or legislative changes will likely be necessary to bring existing plans into compliance by 2007. Administrative procedures should be reviewed and revised as necessary. Communications with the member may be advisable for any instances where plan members would encounter lower amounts under the proposed rules than the plan had been anticipating.

For additional information about the IRS's proposed limits on benefits and contributions and how they will affect your retirement systems, please contact your Milliman consultant.

*Erin Breyman is an actuary with Milliman's Seattle office.*

**If you are receiving a hard copy of PERiScope and would like to receive it electronically, please email us at periscope@milliman.com or visit our subscription website at http://www.milliman.com/eb/publications/subscriptions.asp?pub=periscope.**

This publication is intended to provide information and analysis of a general nature. Application to specific circumstances should rely on separate professional guidance. Inquiries may be directed to: Brent Banister, Editor; 1120 South 101st Street, Suite 400, Omaha, NE 68124-1088; (402) 393-9400; periscope@milliman.com

OFFICES IN PRINCIPAL CITIES WORLDWIDE

# APPENDIX D

# HOUSE RESOLUTION NO. 299
# SESSION OF 2005



This report was prepared exclusively for the use and benefit of the Pennsylvania Legislative Budget and Finance Committee for a specific and limited purpose. It is a complex, technical analysis that assumes a high level of knowledge concerning the operations of the retirement systems and the insurance programs covering retired members, and uses data that Milliman has not audited. Any third party recipient of Milliman's work product who desires professional guidance should not rely upon Milliman's work product, but should engage qualified professionals for advice appropriate to its own specific needs.

PRINTER'S NO. 1893

THE GENERAL ASSEMBLY OF PENNSYLVANIA

# HOUSE RESOLUTION

# No. 299 Session of 2005

INTRODUCED BY DALEY, CLYMER, JOSEPHS, BISHOP, HUTCHINSON, HALUSKA, HICKERNELL, BLACKWELL, FABRIZIO, GABIG, SHAPIRO, GINGRICH, METCALFE, WATSON, YOUNGBLOOD, VITALI, RAPP, SATHER, REED, PRESTON, CASORIO, SHANER, PYLE, TRUE, BELFANTI, EACHUS, MILLARD, ELLIS, GOODMAN, HENNESSEY, HERSHEY, GOOD, LESCOVITZ, STERN, DALLY, HARHAI, REICHLEY, T. STEVENSON AND CAUSER, MAY 9, 2005

REFERRED TO COMMITTEE ON FINANCE, MAY 9, 2005

A RESOLUTION

1 Directing the Legislative Budget and Finance Committee to
2 perform a study of early retirement proposals.

3 WHEREAS, House Bill No. 130, Printer's No. 631 (2005), and
4 House Bill No. 131, Printer's No. 632 (2005), propose retirement
5 enhancements for State employees and public school teachers
6 within the Commonwealth; and
7 WHEREAS, The percentage of employees of the Commonwealth and
8 its school districts who are eligible for retirement is
9 projected to increase substantially over the next two decades;
10 and
11 WHEREAS, The fiscal and personnel impacts of retirement
12 enhancements in the context of the continued aging of employees
13 of the Commonwealth and its school districts may be significant;
14 and
15 WHEREAS, No entity in recent memory has undertaken a

1 comprehensive study of the probable fiscal impact of such
2 enhancements on the overall operations of the Commonwealth and
3 its school districts, including an actuarial study of its impact
4 upon the State Employees' Retirement System and the Public
5 School Employees' Retirement System; and
6 WHEREAS, No comprehensive study has been performed describing
7 the benefits or disadvantages for the personnel needs of public
8 agencies and schools of such enhancements; therefore be it
9 RESOLVED, That the Legislative Budget and Finance Committee
10 perform a comprehensive fiscal, actuarial and policy analysis of
11 the various alternative proposals set forth by House Bill No.
12 130, Printer's No. 631 (2005), and House Bill No. 131, Printer's
13 No. 632 (2005), including such logical variations of those
14 proposals which may be suggested by the study, even though not
15 specifically named in each bill; and be it further
16 RESOLVED, That the analysis include the costs and assets
17 required to fund initiatives, now and over the next ten years;
18 the past impact of early retirement incentives on budgets and
19 work force needs; the actual value of past cost-of-living
20 increases for retirees; the value of early retirement programs
21 in providing employment for younger workers; the potential
22 impacts on the mix of critical skills and experience within
23 Commonwealth agencies and school districts and the various
24 alternatives to maintaining or ensuring adequate staffing in the
25 context of retirement enhancements; the impacts likely on the
26 General Fund of the Commonwealth and various types of school
27 districts according to size, aid ratio and other relevant
28 factors; and the health and welfare of retirees; and be it
29 further
30 RESOLVED, That the committee consult with the chairman and

1 minority chairman of the State Government Committee of the House
2 of Representatives and with the prime sponsor of House Bills 130
3 and 131 in formulating the outline of its analysis; and be it
4 further
5 RESOLVED, That the committee be authorized to request
6 actuarial studies for this study on behalf of the House of
7 Representatives; and be it further
8 RESOLVED, That the committee avail itself of other studies
9 and resources already existing as may assist in completing this
10 study; and be it further
11 RESOLVED, That the report of the committee on this resolution
12 be delivered to the State Government Committee in a public forum
13 during the month of January 2006 and be disseminated thereafter
14 promptly to all members of the General Assembly and the Governor
15 for consideration.

# APPENDIX E

# Additional Information
# Milliman Letter of June 8, 2006

A MILLIMAN GLOBAL FIRM

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June 8, 2006

Mr. Philip R. Durgin
Executive Director
Legislative Budget and Finance Committee
Finance Building, Room 400A
P. O. Box 8737
Harrisburg, PA 17105-8737

Re: HR 299 Report – additional information

Dear Mr. Durgin:

This letter is intended to provide you with some additional information to supplement our Report pursuant to HR 299 ("HR 299 Report") dated March 30, 2006.

SERS December 31, 2005 Actuarial Valuation Results

Subsequent to the completion of our HR 299 Report, the December 31, 2005 Actuarial Valuation Report of the Pennsylvania State Employees' Retirement System ("SERS Valuation Report") was completed. The SERS Valuation Report indicates that favorable investment returns in 2005 and the impact of modifications in the actuarial assumptions have reduced the employer contribution rates below the employer contribution rates we forecast in the HR 299 Report based on the December 31, 2004 SERS Valuation Report. We had forecast that the total SERS employer contribution rate (including the Benefits Completion Plan) would be 4.66% for FY 2006-7; the actual total SERS employer contribution rate for FY 2006-7 is 4.02%. (Prior to the application of the Act 2003-40 minimum employer contribution rate for the qualified plan of 4.00% the total SERS employer contribution rate would have been 2.09%.)

If we had been able to reflect this favorable development in the HR 299 Report, our forecast of SERS' employer contribution rates under current law presented in the Background Section of the HR 299 Report would have been reduced by roughly 2.7% of payroll each year, to the figures shown below.

| Fiscal Year | HR 299 Report Forecast SERS Employer Contribution Rate Under Current Law | Revised Forecast SERS Employer Contribution Rate Under Current Law |
|---|---|---|
| 2007-8 | 5.40% | 2.74% |
| 2008-9 | 4.35% | 1.62% |
| 2009-10 | 4.15% | 1.42% |
| 2010-11 | 4.39% | 1.67% |
| 2011-12 | 4.66% | 1.94% |
| 2012-13 | 20.16% | 17.45% |
| 2013-14 | 20.05% | 17.34% |
| 2014-15 | 18.97% | 16.26% |
| 2015-16 | 18.74% | 16.04% |
| 2016-17 | 18.59% | 15.89% |

This favorable development is fully reflected under current law in the calculation of the employer contribution rate, and hence would ***not reduce the estimated incremental costs*** to fund the initiatives proposed in HB 130 and 131 shown in Sections I and II of the HR 299 Report. Note also as seen in the table above, this favorable development does not impact the 15.5% of payroll ***increase*** in employer contribution rate projected to occur in FY 2012-13.

PSERS update

It is worth noting that the Pennsylvania Public School Employees' Retirement System, "PSERS", also had favorable investment results in 2005. During the 6 months subsequent to the completion of the PSERS June 30, 2005 Actuarial Valuation Report (the basis for the projections presented in our HR 299 Report), PSERS reported investment returns of 8.58%, or 4.41% more than the actuarially assumed rate of investment return during that period. As mentioned in the SERS discussion above, this excess return does ***not reduce the estimated incremental costs*** to fund the initiatives proposed in HB 130 and 131 shown in Sections I and II of the HR 299 Report, and does not impact the 16.3% of payroll ***increase*** in employer contribution rate projected to occur in FY 2012-13.

Option 4 withdrawal of member contributions at retirement

In the HR 299 Report we did not discuss the option for members to withdraw their accumulated member contributions at retirement. This option results in a reduction in the member's retirement annuity. During the 1980's when market interest rates were high (e.g., US government bonds had yields exceeding 10%), this option was quite

favorable to retirees since the reduction in the member's annuity is based on the statutory interest rate of 4%. Over the last 15 years, market interest rates have declined significantly, so that today this option is closer to an "economically fair" transaction to both the member and SERS and PSERS.

Reliance on Data and Other Information Provided to Milliman

In performing this analysis, we relied on data and other information provided by the Committee, SERS, PSERS, and the systems' actuaries. We have not audited or verified this data and other information. If the data or information are inaccurate or incomplete, the results of our analysis likewise may be inaccurate or incomplete.

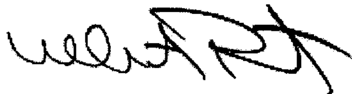
We performed a limited review of the data used directly in our analysis for reasonableness and consistency and have not found material defects in the data. If there are material defects in the data, it is possible that they would be uncovered by a detailed, systematic review and comparison of the data to search for data values that are questionable or for relationships that are materially inconsistent. Such a review was beyond the scope of our assignment.

Variability of Results

Differences between our projections and actual amounts depend on the extent to which future experience conforms to the assumptions made for this analysis. It is certain that actual experience will not conform exactly to the assumptions used in this analysis. Actual amounts will differ from projected amounts to the extent that actual experience deviates from expected experience.

We look forward to meeting with you and the Committee to present this report and respond to any questions. If you have any questions in the interim, please let me know.

Sincerely,



William A. Reimert

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# APPENDIX F

# SERS AND PSERS
# RESPONSES TO THIS REPORT

Commonwealth of Pennsylvania
**State Employees' Retirement System**
30 North Third Street, Suite 150
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Executive Office
Telephone: 717-787-9657
FAX: 717-783-7300

March 28, 2006

Mr. Philip R. Durgin
Executive Director
Legislative Budget and Finance Committee
400 Finance Building
PO Box 8737
Harrisburg, PA 17105

Dear Mr. Durgin:

Thank you for allowing us the opportunity to review your draft report on HR 299 prior to its issuance. Your report is quite comprehensive and, in our opinion, expresses the appropriate level of concern regarding the potential financial impact of early retirement incentive programs and cost-of-living increases. As we saw with the passage of Act 2001-9, an unforeseen bear market for equity investments significantly increased its financial consequences far beyond anybody's projections. We applaud the conservative tone of your report vis-à-vis the sharp increases in employer contribution rates looming in 2012.

We would like to bring to your attention six specific concerns we identified in our review of your HR 299 report. In addition, we have identified a number of technical comments for your consideration.

**Specific Concerns**

1) It appears that Milliman, in projecting SERS' funded status, assumed a 2005 investment return of 8.5%. Our actual investment return of 14.5% far exceeds our actuarial assumption and will have a significant impact on projections of funded status. Based on our projections, our funded status will not dip below 90.0% (84.0% assuming COLAs continue to be enacted as in the past).

2) Milliman's peer group analysis indicates that our funded status will decline to below the median. However, based on our analysis of the 2005 *Wilshire* report, our funded status will stay well above the 83.0% median for public plans and above the 89.0% for private plans. We believe the *Wilshire* study is a much more meaningful universe than the five plans Milliman used in their analysis.

3) Milliman adjusts our funded status calculation to the private sector by attempting to calculate an accrued benefit obligation (ABO) and a projected benefit obligation (PBO) using FASB's SFAS 87 and a private sector type rate of return (now in the 5-6% range). First, we question the relevance of this calculation. While it is certainly possible that private sector pension accounting

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LB&FC NOTE: Because some pages changed between the draft copy reviewed by SERS and this final version, the page numbers referred to in the response are not correct in this final version of the report. Therefore, when page numbers are different, we have indicated the final report page numbers in the right hand margin of the response letter.

standards could be imposed on public sector plans at some point in the future, we are not aware of any such initiative and neither we nor the Committee have any way of gauging its likelihood. We can only assume that this is intended to add an element of conservatism to prevent another unpleasant surprise like the unanticipated bear market in 2000-2002. Nonetheless, we respectfully question whether such a speculative calculation is appropriate for inclusion in a report responding to the mandate of HR 299. We believe this digression into a purely hypothetical scenario could dilute the impact of the study by lessening the focus on the Committee's well-reasoned and well-documented primary analysis.

Further, we note inconsistent treatment of our salary growth and mortality assumptions in Milliman's attempt to reconcile our funded status calculation with private sector rules; our assumptions will create much higher liabilities for SERS than for the typical private sector plan. This is an "apples to oranges" comparison. If it is the Committee's decision to retain discussion of hypothetical GASB rule changes, we would ask that this inconsistent treatment of salary growth and mortality assumptions be remedied.

4) On page 18 of the report, the paragraph below the table (and other places where similar language occurs) accurately indicates that "the current level of contributions falls short of covering the cost of benefits." We suggest you insert a clause or sentence noting that the under-funding is by operation of the Retirement Code and the result of a conscious decision by the General Assembly (as expressed in Act 2003-40) so as to clarify that in setting employer contribution rates, the SERS Board is not shorting the fund of its own volition.[1] (20)

5) On page 41 and again on page 62, the report references data "we did not receive from SERS." We are concerned that this language could be construed as suggesting some failure on SERS' part to fully cooperate with the study. If there is information in our possession that you have requested and we have failed to provide, we apologize and stand ready to provide it now. If the draft is referring to information that SERS was *unable* to provide, we would request that the report use language to that effect.[1] (44, 65)

6) On page 44 of your report, the next to the last paragraph, "salary savings due to replacement," indicates that significant salary savings are possible under an ERIP. The rationale stated is that retiring employees will be at higher pay levels than the employees hired as replacements. Therefore, the report concludes, payroll savings will result. SERS' past experience with ERIPs has found this *not* to be true. (47)

In the ranks of the Commonwealth agencies, a "laddering up" effect takes place. Senior employees retiring under an ERIP are generally replaced by promoting in-house staff. The promoted employees' vacated positions are in turn replaced by promoting lower level in-house staff. This process continues until an entry-level position becomes vacant and is filled with a new employee. Additionally, overtime payments to the remaining employees may be needed in order to cover the workload left by the retiring senior employees. The net result of this "laddering up" effect is that payrolls actually increase rather than decrease.

[1] Milliman note: Changes were made to the final report to clarify this issue.

This effect was especially noticeable with the Mellow bill. The SERS 1992 Actuarial Report, on page 2 of its General Discussion Section, made reference to this, when noting events that impacted SERS during that year. It stated, "The unexpectedly high salary increase was attributable to both an increase in the number of overtime hours and the number of promotions. These events were a result of personnel actions following the retirements under the Mellow bill in late 1991." [2]

**Technical Comments**

1) Page 3 (and other places where similar language occurs). The coverage of the early retirement window is correctly stated so far as it goes. There is, however, the possibility of a small group of older SERS members qualifying under the "Rule of 80" with fewer than three years of credited service. Is this cohort statistically significant or worth mentioning either for completeness even if not statistically significant or because of the possibility for abuse?

2) Page 5, text at bottom of page (and other places where similar language occurs). H.B. 130, page 3, lines 12-15 provides that SERS members in the covered age and service cohorts who retire during the window "shall be entitled to any insurance coverage under any contract of insurance affecting the member that is in effect on the effective date of retirement of the member." It is not clear to us what this statutory language means. Milliman states that this language "refers to the insurance coverage a SERS member would be eligible to receive from their employer or the Commonwealth if he or she had satisfied the requirements for superannuation retirement at the time of retirement." By this, we assume that Milliman is interpreting the statutory language to waive the age, but not the service requirements, for retiree health benefits. We think an equally valid reading is that both the age and service requirements are waived, both for early retirements under the window, and for post superannuation retirements for members who satisfy the "Rule of 80." Therefore, we suggest that the report state that the statutory language is ambiguous and recommend that it be clarified, that the report more explicitly state how the statutory language is being interpreted in the report, and that if alternate interpretations are utilized then both the numbers of employees availing themselves of the ERIP and the cost numbers for post-retirement health benefits could be significantly higher.

3) Page 6, last paragraph, page 9, first bullet point (and other places where similar language and calculations occur). We expect to have a draft actuarial valuation as of December 31, 2005 by the middle of April. If you have not finalized your report by that point in time, we will gladly share the draft results with you.

4) Page 10, last bullet point (and pages 83-84). It might be helpful to explain or define "certificated members." [3] (86-87)

[2] Milliman note: While we agree these are valid issues, we did not have any data to estimate the magnitude of these factors under a future ERIP.

[3] Milliman note: Additional explanation included in the final report.

5) Page 28, paragraph below table, page 29, paragraph above the table, and the chart on page 34. The text of these paragraphs is unclear and also appears to contradict text and charts in other places, such as page 10, fifth bullet point, the chart on page 39, the text and chart on page 45, and the material on pages 88-89. First, it is not clear if the lack of data refers only to health insurance costs under the collective bargaining agreements, or also to the insurance under Act 110 and Act 43. If both, then the numerical results in various places in the report appear to contradict this statement. If data is available regarding Act 110 and Act 43 costs, then we suggest that wherever those numbers are stated in the report, the report contain a statement that no estimate has been made of costs relating to insurance provided under collective bargaining agreements, similar to the way the report states that the PEBTF numbers have been adjusted to reflect for the 15% or so of SERS members who are not covered by PEBTF. Otherwise, it is too easy to forget or miss the fact that the school employees' health insurance costs (and thus the savings) are being understated. [4] (30, 31, 36) (41, 47-48) (91-92)

6) Page 41, first paragraph, 9th and 10th line. The sentence "No ERIPs had been offered prior to the 1985-86 ERIP" is incorrect. The Act of June 17, 1982, P.L. 534, No. 152 opened an early retirement window with PSERS from June 1, 1982 through August 31, 1982. [5] (43 last line)

7) Page 56, 1st paragraph after heading B. The 94.75% calculation is incorrect. The correct number is 93.75% (100 - 6.25 = 93.75). [5] (59)

This point could be expanded to note that the take-home pay of active employees is further reduced by other deductions that do not apply to pension benefits, notably state and local income tax and Social Security. Together, these additional deductions typically amount to more than 10% of pay.

8) Page 57, 1st full paragraph. Non-expert readers might find it helpful if you were to note that "final salary" as referenced here is not the same as "final average salary" used in calculation pension benefits. Perhaps the explanation in the last paragraph on page 94 that the final average three year pay used to calculate the retirement system benefit is assumed to be 95% of the final salary could be repeated here. [5] (60)

9) Page 57, Heading C. It was not clear to us whether this proposal of increased contributions by members and employers for future COLAs is an optional buy-in feature, or mandatory, and whether it is to apply only to new members. [6] (60)

10) Page 60, Table: (63)

a. The table does not contain the 1982 PSERS ERIP referenced in paragraph 6 above.

b. The table provides only a partial description of Act 1991-23, in that it references the provision regarding 30 eligibility points but not the provision (discussed on page 67) regarding a 10% increase in service credits for employees age 55 or older with 10 or more eligibility points. (70)

[4] Milliman note: The lack of statewide data applies to the Act 110 and Act 43 costs, and also to the local collective bargaining agreements. In the Background on Funding of Current Insurance Benefits section we highlighted the cost of the PSERS premium assistance program and did not address the additional benefits provided by local school districts as we could not develop a reasonable statewide estimate. In Section 1 – Cost to Fund Initiatives – HB 130, as noted we estimated the mandated minimum benefits of Act 110 and Act 43. We felt that the incremental cost of Act 110 and Act 43 benefits could be estimated with enough accuracy to be meaningful. As noted in Section 1, the potential additional impact of local collective bargaining agreements was estimated in Section 6 Impacts on General Fund and School Districts. A hypothetical school district was illustrated to demonstrate the potential range in costs that a district might experience.

[5] Milliman note: Changes have been made in the final report to address these concerns.

[6] Milliman note: The intent of this section was to make the point that COLA costs could be shared by both members and employers, not to develop a specific proposal.

c. The Act 1984-95 ERIP for SERS is misstated. Although the PSERS' ERIP was based on eligibility points, the SERS ERIP required 30 years of State or school service. Eligibility points based on credited non-state service (such as non-intervening military service or out of state teaching service) did not count for eligibility for the SERS ERIP. The Act of June 13, P.L. 40, No. 19 amended the SERS 1985-86 ERIP to conform to the PSERS ERIP and be based on eligibility points. [7]

d. Act 1986-91 was applied 8 days retroactively.

e. Act 1987-69 was applied 12 days retroactively. Also, the more favorable reduction factors for SERS members with 30 eligibility points who were between age 50 and 53 (established in the two earlier ERIPS) were continued to 6-30-89. [7]

f. Act 1988-112 continued the more favorable reduction factors for SERS members with 30 eligibility points and who were between age 50 and 53 to 9-30-91.[7]

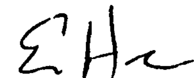
11) Page 74, Table: It is not readily apparent to us what methodology was used to arrive at these figures and our own effort to replicate the calculation produced different results. Some explanatory note regarding the methodology would be helpful. [7] (77)

12) Page 80, 2nd paragraph, material in quotation. It is apparent from the context that the second word on the 6th line should be "in" instead of "is". [7] (83)

13) Throughout the report: Generally, in seeking to project the impact of an ERIP based on past experience, the report does not give weight to the fact that prior ERIPs did not contain the health insurance language currently in H.B. 130. Participation in an ERIP that for the first time protects insurance benefits could be significantly higher than historical ERIP experience might suggest. Also, the report does not address various ancillary costs to ERIPs, such as cashing out unused leave or training, transition and "emergency" return to service costs. [8]

Thank you for affording SERS the opportunity to review the report in draft form. We believe this report will provide the Legislature and public with a much better understanding of the many issues that must be taken into consideration in any public policy discussion of COLA or ERIP legislation. We are pleased to have been able to contribute data to the draft report and hope that these additional comments are helpful to you. As always, please do not hesitate to contact me if we can be of any further assistance.

Sincerely,



Eric Henry
Executive Director

[7]Milliman note: Changes have been made to the final report to address these comments.

[8]Milliman note: While HB 130 explicitly protects insurance benefits, the prior ERIPs that were analyzed in the assumption setting process applied to long service employees and implicitly protected insurance benefits for nearly all such retirees. Demographic data regarding insurance for members retiring under prior ERIPs was not available.

COMMONWEALTH OF PENNSYLVANIA
**PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM**

**JEFFREY B. CLAY**
Executive Director
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March 31, 2006

Mr. Philip R. Durgin
Executive Director
Legislative Budget and Finance Committee
400 Finance Building
PO Box 8737
Harrisburg, PA 17105

Dear Phil:

Thank you for allowing the Public School Employees' Retirement System (PSERS) the opportunity to review and comment on the draft report prepared in response to HR 299.

PSERS found the report to be very comprehensive and insightful. The report gives a good synopsis of both the current employer contribution rate issues and the potential impacts facing the Commonwealth and School Employers should the Legislature decide to grant either a Cost-of-Living-Adjustment or an Early Retirement Incentive Plan.

As you know, PSERS' long-term policy has been to provide only technical support for pending legislation and not take a position on whether or not a benefit enhancement should be granted. PSERS understands that it is the responsibility of the Legislature to debate the merits or demerits of benefit enhancements for PSERS' members, including the cost impact on the taxpayers of the Commonwealth at both the State and local level.

Notwithstanding this policy, we do believe your report appropriately addresses PSERS' concerns regarding the impact of the rising employer contribution rate and potential benefit enhancements. In particular, we agree with your concern noted throughout the report and specifically on Page 40,* which states, *"We want to reiterate the need to develop a long-term affordable contribution schedule to finance the current SERS and PSERS benefits before adding additional costs through legislation to improve benefits."*

PSERS also greatly appreciated the cooperative working relationship with both your staff and Milliman and specifically your willingness to address our technical comments during the review process of the report. We have provided

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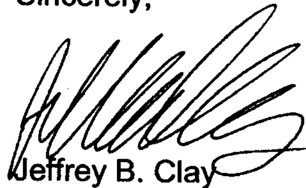
*LB&FC NOTE: Because some pages changed between the draft copy reviewed by PSERS and this final version, the information referred to here is now on page 39 in this final version of the report.

technical comments to Milliman and your staff, some of which have been included in the report.

We wish to draw your attention, however, to one recommendation contained in the report on which we have concerns. The recommendation regarding HB 130, which would allow each individual school district the discretion to participate in a Commonwealth approved ERIP, is questionable as a viable alternative. Such a provision would require significant changes to the PSERS Retirement Code, as well as the administrative reporting and employer contribution functions of the agency and respective employers. Moreover, there may be an issue of compliance with the U.S. Internal Revenue Code (IRC) requirements applicable to PSERS operating as a qualified, multi-employer governmental plan.

Thank you for the opportunity to provide data and additional comments for this report. Please do not hesitate to contact me if we can be of further assistance.

Sincerely,



Jeffrey B. Clay
Executive Director