PUBLIC EMPLOYEE RETIREMENT COMMISSION

ACTUARIAL NOTE TRANSMITTAL

Bill ID: House Bill Number 1353, Printer's Number 1847, as amended by Amendment Numbers 02204 and 02259

System: State Employees' Retirement System

Subject: Defined Contribution Retirement Plan

SYNOPSIS

House Bill Number 1353, Printer's Number 1847, would amend Title 71 (State Employees' Retirement Code) to:

1) Add a new chapter, Chapter 54, titled "State Employees' Defined Contribution Plan." Chapter 54 would establish a mandatory defined contribution plan for state employees whose most recent period of state service starts on or after January 1, 2015. Employer contributions to the plan would be equal to 4% of salary for most employees, with a mandatory employee contribution of 4% of salary; and

2) Permit current SERS members to elect to participate in the defined contribution plan prospectively, with a 4% employer contribution and 4% contribution for all subsequent state service.

Amendment Number 02204 would amend the bill to:

1) For current members of the System who elect the Option 4 lump-sum withdrawal upon retirement after January 1, 2015, modify the manner of determining the net annuity to make the option actuarially cost neutral to the System for all employee contributions made after the year 2015.

Amendment Number 02259 would amend the bill to:

1) Modify the calculation of "final average salary" applicable to current SERS members from the average of the highest three years of service to the average of the highest five years for all service performed or first credited on or after January 1, 2015.

SYNOPSIS (CONT'D)

2) For service performed or credited to current members on or after January 1, 2015, limit pensionable compensation for members to not exceed 110% of the average of the four preceding years of pensionable compensation for final average salary calculation purposes.

DISCUSSION

The Retirement Code and System

The State Employees' Retirement Code (Code) is a governmental, cost-sharing, multiple-employer pension plan. The designated purpose of the State Employees' Retirement System (System) is to provide retirement allowances and other benefits, including disability and death benefits to State employees. As of December 31, 2012, there were approximately 105 Commonwealth and other employers participating in SERS.

Membership in SERS is mandatory for most State employees. Certain other employees are not required but are given the option to participate. As of December 31, 2012, there were 106,048 active members and 117,061 annuitant members of SERS.

For most members of the System, the basic benefit formula used to determine the normal retirement benefit is equivalent to the product of 2.5% multiplied by the member's years of accumulated service credit (eligibility points) multiplied by the member's final average (highest three years) salary. Since the passage of Act 9 of 2001 (which increased the accrual rate for most members from 2.0% to 2.5%), most members of SERS are Class AA members and contribute 6.25% of pay to the System. Within SERS, there are a number of additional membership classes with corresponding benefit accrual and employee contribution rates that differ from the majority of State employees.

Act 120 of 2010 implemented major pension reforms, including the establishment of new benefit tiers applicable to most new members. Effective January 1, 2011, most new members (including members of the General Assembly) are required to become members of one of two membership classes, known as "Class A-3" and "Class A-4." Most new members of SERS, other than State Police officers or members employed in a position for which a class of service other than Class A or Class AA is credited or could be elected, become members of Class A-3 beginning January 1, 2011 (or if a member of the General Assembly, beginning December 1, 2010). Class A-3 members are eligible for an annuity based upon an annual benefit accrual rate of 2% and have a corresponding employee contribution requirement of 6.25% of

DISCUSSION (CONT'D)

compensation. As an alternative to Class A-3, an employee who becomes a member of SERS on or after January 1, 2011, may elect Class A-4 membership within 45 days of becoming a member of SERS. A Class A-4 member is eligible for an annuity based upon an annual benefit accrual rate of 2.5% with a corresponding employee contribution requirement equal to 9.3% of compensation.

Under the State Employees' Retirement Code, superannuation or normal retirement age for most members is age 60 with at least three years of service or any age with 35 years of service, while age 50 is the normal retirement age for members of the General Assembly and certain public safety employees. For most members of SERS who first became members after the effective date of Act 120, the superannuation requirement is age 65 with a minimum of three years of service credit, or any combination of age and service that totals 92 with at least 35 years of credited service, and age 55 for members of the General Assembly and certain public safety employees.

Defined Benefit and Defined Contribution Retirement Systems

There are two predominate approaches to pension plan design employed in the public and private sectors to provide employee retirement benefits. In a "defined benefit" (DB) plan, such as SERS, the pension benefit to be provided at retirement is defined, while the contributions to be made over the period of employment are variable based on the experience of the pension fund. Upon retirement, a DB plan participant is entitled to receive a definitely determinable benefit that is calculated using a formulation that considers factors such as age, duration of service with the employer and compensation. Because the benefit is defined and calculated using a formula and is not dependent on an individual's account balance, members of DB plans are largely insulated from both negative and positive fluctuations of the investment markets.

By contrast, in a "defined contribution" (DC) pension plan, such as the plan proposed in the bill for new or returning State employees, the contributions to be made over the period of employment are defined, while the pension benefit to be provided at retirement is variable based on the experience of the pension fund. Upon retirement or separation from the employer, a DC plan participant is generally entitled only to the balance standing to the credit of the individual's retirement account. Market performance directly impacts the value of an individual's retirement account.

The distinction between the DB and DC approaches is most significant in the placement of the risk associated with investment earnings over the period of employment. The fixed benefit in a DB pension plan means that the investment experience impacts the contribution

DISCUSSION (CONT'D)

requirements, increasing them when investment earnings are lower than anticipated and decreasing them when earnings are greater than anticipated. The fixed contributions in a DC pension plan mean that the investment experience impacts on the benefit amount, increasing it when earnings are higher and reducing it when earnings are lower. Therefore, the employer bears the investment risk in a DB plan, and the employee bears the investment risk in a DC pension plan.

For most employees, defined contribution plans are generally regarded as more valuable for those in the early stages of their careers or for those who are employed in careers that entail greater mobility. Defined contribution accounts are portable and can readily move with the employee as that employee moves from one employer to the next. In contrast, defined benefit plans are relatively more valuable for those employees who tend to remain with one employer and to long-service employees in the later stages of their careers, because the value and cost of the defined benefits earned each year increase as employees approach retirement age.

Defined Contribution Plan for State Employees

The bill would establish a new mandatory governmental retirement plan, known as the State Employees' Defined Contribution Plan ("Plan"), for all new State employees or employees returning after a break in service on or after the year 2015. The defined benefit plan provided by SERS would be closed to new entrants or returning employees effective January 1, 2015.

Current members of SERS would retain membership in the System unless they choose to become a participant in the new DC plan, at which point they would cease accruing service credit in SERS. Membership benefits already accumulated prior to election in the DC plan would be frozen in the System, but available to the employee upon retirement. Election to participate in the plan can be made at any time, and would be an irrevocable election. An employee who is both a member of the System and a participant in the plan would be known as a "combined service employee." After electing to participate in the Plan, the employee would be prohibited from purchasing any previous State or creditable nonstate service. Under Section 5307 of the bill, for an active member who elects to become a participant in the Plan, vesting requirements under the System (five-year vesting for Class AA and ten-year vesting for Classes A-3 & A-4) shall be considered to have been satisfied if the employee participates in the Plan for three or more years. A combined service employee would also be eligible for a superannuation annuity under the System after three years of participation in the Plan.

DISCUSSION (CONT'D)

For the purposes of the Commission's discussion, the major issues of the new pension plan have been divided into the following four categories: 1) establishment, organization and operation; 2) coverage, benefits and contributions; 3) investments; and 4) ancillary issues.

Establishment, Organization and Operation

The bill mandates the creation of the State Employees' Defined Contribution Plan, establishes the SERS Board as administrator of the Plan, and sets forth the Board's powers and duties. Most of the details governing the actual operation of the new Plan are delegated to the Board which will be responsible for establishing the rules and regulations governing the Plan. These rules and regulations will presumably address the many specific details involved in the operation of a public pension plan. It also appears that most of the new Plan's investment and administrative functions may be handled by third-party administrators contracted by the Board to provide the necessary services.

Coverage, Benefits and Contributions

Most State employees who participate in the new DC plan would be required to contribute a mandatory 4% of compensation with an employer-matching contribution of 4% of compensation. For hazardous duty employees (including Capitol Police and park rangers), the employer contribution rate would be 5.5% of compensation. For State Police officers, the employer contribution rate would be 12.2% of compensation. Also, special rules for retirement benefits would apply to State Police who have less than 20 years of service as of December 31, 2014, and retire after January 1, 2015, with more than 20 years of service.

A participant may make additional contributions to the pension plan up to the limits imposed by federal law. Participants in the Plan would be 100% vested immediately in all employee and employer contributions, as well as any interest and earnings attributed to those contributions. Contributions on behalf of the participant and the employer would be credited to an "individual investment account" for each participant of the new Plans, along with all interest and investment gains or losses. For investment purposes, the Board may pool the assets of the participants in the Plan.

Investments

While the bill does not specifically mention the type of investments that will be offered to the participants, governmental defined contribution plans typically offer a variety of investment options, including lifestyle funds that are based upon age and projected retirement date. The

DISCUSSION (CONT'D)

Plan will most likely also make available investment options that represent a broad cross-section of asset classes and risk profiles. The bill states that the SERS Board will not be held responsible for any investment losses incurred by participants in the Plan or for the failure of any investment to earn a specific or expected return. All fees, costs and expenses of administering the Plan will be assessed against the accounts created on behalf of participants.

Ancillary Issues

Death and Disability Benefits. Beyond payment of the participant's account balance to the designated beneficiary upon the death of an active participant, there are no special death or disability benefit provisions to provide for the surviving spouse or children of a Plan participant.

*Retired Employee Health Program***.** The Retired Employee Health program (REHP) is administered jointly by the Governor's Office of Administration and SERS. The REHP provides for Commonwealth-subsidized post-retirement healthcare benefits to employees of most Commonwealth agencies. Eligibility for these benefits is tied to an employee's years of credited service in SERS and an employee's age at retirement. Because a participant in the Plan would not accrue credited service in the System, it is unclear how or if REHP participation would be incorporated into the DC plan.

Pension Forfeiture Act. Under Act 140 of 1978, known as the Public Employee Pension Forfeiture Act (43 P.S. §§ 1311-1315), a public official or public employee who is convicted or pleads guilty or no defense to a crime related to public office or public employment is disqualified to receive a retirement or other benefit or payment of any kind except a return without interest of the contributions paid into a retirement system. Under the bill, the accumulated contributions of a participant shall not be forfeited but will be made available for payment of any fines or restitution.

Limitations on Compensation and Final Average Salary

Amendment Number 02259 proposes two new limits on compensation that may be used for purposes of calculating the retirement benefits of active members of SERS. The proposed changes are: 1) increasing the period over which the member's final average salary may be calculated from three years to five years; and 2) imposing the "New York Rule" for averaging compensation. The overall impact will be to reduce from current benefit levels the potential future retirement benefits of the affected members.

DISCUSSION (CONT'D)

The System currently employs a member's "final average salary" as one of the components of the statutory formula that is used to compute a member's retirement benefit entitlement. Currently, a member's final average salary is calculated as the average of the highest three years of compensation. The amendment to the bill would amend the Code to change the final average salary calculation from the average of the highest three to the average of the highest five years of compensation for all prospective State service credited on or after January 1, 2015. All service performed and credited prior to the year 2015 would retain the three-year final average salary calculation. A new final average salary calculation at the time of retirement would include two components; both the final average salary using the three-year average for all service performed and credited prior to the year 2015, combined with the final average salary calculated over the highest five years of State service for all service credited after the year 2015.

The amendment to the bill would apply a new limit on the level of compensation that may be used for final average salary determination purposes, known as the "New York Rule." Under this provision, the pensionable compensation cannot exceed 110% of the average of the four preceding years.

Members' Retirement Options

The maximum single-life annuity is the basic retirement benefit entitlement for members of SERS. The maximum single-life annuity provides the largest monthly pension payment to which an eligible member is entitled for the member's retired lifetime. When a member who has elected to receive benefit payments in the form of the maximum single-life annuity dies, that member's designated beneficiaries are entitled to receive a death benefit in an amount equal to the member's total accumulated deductions, less any accumulated deductions withdrawn by the member at retirement and any retirement benefit payments that the member received prior to death. The member's "accumulated deductions" are the total of the member's employee contributions to the retirement system that have accrued over the member's working lifetime, plus accumulated interest at the statutory rate of four percent. If the total amount of benefit payments the member received prior to death exceeds that member's accumulated deductions, no death benefit will remain to be paid to the member's designated beneficiaries.

In addition to the maximum single-life annuity, the SERS' Retirement Code provides additional member options intended to provide members with flexibility in deciding the manner in which members' benefits are disbursed and to ensure that members who choose to do so have the ability to provide a reliable benefit stream to their designated survivor

DISCUSSION (CONT'D)

beneficiaries. Retirement Option 4 permits a retiring member to withdraw all or a portion of the member's accumulated deductions. A member may elect to receive this withdrawal in one lump sum or in up to four installment payments. The installments continue to earn interest at the statutory rate of four percent per year until they are paid to the member. A member who elects to withdraw his or her accumulated deductions is entitled to a lifetime monthly pension benefit that is smaller than under either the maximum single-life annuity or Options 1 thru 3, because the benefit will be computed on the present value of the member's benefit entitlement less the amount of the accumulated deductions that were withdrawn.

Under Act 120 of 2010, the election to withdraw the member's accumulated deductions under Option 4 was eliminated as an option for new members of PSERS and SERS who otherwise would be eligible to receive retirement benefits. Members of Class T-E , T-F, A-3 and A-4 who terminate service before vesting continue to be entitled to withdraw their accumulated deductions plus the interest earned on those contributions upon termination of service, in lieu of any claim to other benefits.

Under the bill, the election to withdraw the member's accumulated deductions under Option 4 would remain available to current members of SERS. However, Amendment Number 02204 would implement a change in the manner in which the Option 4 withdrawal is computed to make Option 4 actuarially cost neutral to the System for all service credited after the year 2015. For all service performed and credited before the year 2015 by current active members of the System, the accumulated deduction calculation will remain unchanged.

Potential Contract Impairment

By altering the benefit provisions for members in SERS on or after January 1, 2015, it appears that the bill and amendments may impair the retirement benefit rights of active members of the System. Historically, public employee retirement benefits are recognized as deferred compensation for work already performed, which confers upon public employees certain contractual rights protected by the Pennsylvania Constitution (Article I section 17).[1] *Police Officers of Hatboro v. Borough of Hatboro,* 559 A.2d 113 (Pa. Cmwlth 1989); *McKenna v. State Employees' Retirement Board,* 495 Pa. 324, 433 A.2d 871 (1981); *Catania v. State Employees' Retirement Board,* 498 Pa. 684, 450 A.2d (1982). These contractual pension rights become fixed upon the employee's entry into the retirement system and cannot be subsequently unilaterally diminished or adversely affected, regardless of whether (1) the member is vested; or (2) the

[1] The Pa. Constitution provides: "No ex post facto law, nor any law impairing the obligations of contract, … shall be passed."

DISCUSSION (CONT'D)

devaluation is necessary for actuarial soundness. *Association of Pa. State College and University Faculties v. State System of Higher Education,* 505 Pa. 369, 479 A.2d 962 (1984). See also *Hughes v. Public School Employees' Retirement Board*, 662 A.2d 701 (Pa. Cmwlth. 1995), *alloc. denied,* 542 Pa. 678, 668 A.2d 1139 (1995) (member has property interest in pension benefit).

Implications of Closing SERS to New Members

As noted previously, membership in SERS would be closed to all new employees or employees returning after a break in service on or after the year 2015. However, the retirement system will retain its current active and annuitant populations and funding for the retirement benefits of those members will continue for many decades. In actuarial terms, the funding dynamics of such "closed groups" differ significantly from an open group in which there is a continuous influx of new active members. Closed groups present funding challenges that will need to be addressed in the future through modification of the System's statutory funding provisions.

When the population of a retirement system is an open group, with a continuous influx of new active members, payroll generally increases and the level-dollar amortization represents a decreasing percentage of payroll. However, in a closed group, the payroll will begin shrinking in the future and the level-dollar payments will represent an increasingly larger percentage of payroll. The System currently has a large unfunded actuarial accrued liability that will need to be covered by future contributions. The liabilities of SERS are not unlike a home mortgage or other long-term debt. The debt must be paid (amortized), with interest, over a certain span of time. In the event SERS is closed to new members, the period over which these liabilities will need to be amortized will be no more than 30 years on a level-dollar basis. The fixed-dollar cost of paying down these liabilities will result in increased amortization payments as a percentage of payrolls and may become excessively burdensome for the remaining active member employers.

Currently, changes in the unfunded accrued liability, except those due to legislative action, are amortized on a level-dollar basis over a 30-year period for SERS. Changes due to legislative action are to be amortized over a ten-year period.

Beginning July 1, 2014, changes in the accrued liability of SERS due to the bill as amended will be amortized on a level-dollar basis over a period of 20 years. The bill also requires a "fresh-start" re-amortization of the remaining unfunded accrued liability on a level-dollar basis over a period of 30 years. All other future changes in liability due to legislation subsequent to December 31, 2014, will be amortized over 10 years on a level-dollar basis.

DISCUSSION (CONT'D)

As the active membership declines within the System, it may not be reasonable to assume that future changes in the unfunded accrued liability should be amortized over 30 years. A ten-year period may also be unreasonable for future legislative changes. Consideration should also be given to the appropriate period over which future plan experience should be amortized.

Once active membership in SERS has significantly declined and retired members are the majority of the System's total membership, the System may also need to consider revising its investment policies. Due to the need to ensure sufficient liquidity to provide for the payment of benefits, SERS may be compelled to invest assets in a more conservative manner resulting in a lower discount rate. This revision would result in a lower valuation interest rate, which would result in higher actuarial accrued liabilities, requiring larger employer contributions as a percentage of payroll.

SUMMARY OF ACTUARIAL COST IMPACT

The Commission's consulting actuary has reviewed the bill, the amendments, and the actuarial cost estimate provided to the Commission by Hay Group, the consulting actuary for SERS (see attachments). On Friday, June 21, 2013, the Commission also received certain actuarial work prepared by Milliman, Inc. for the Office of the Budget (all referenced materials, including the work of the Commission's consulting actuary, Cheiron, are attached). The following summarizes the views of the Commission's consulting actuary.

Implications of Closing the System to New Entrants.

- The bill closes the defined benefit plan to future members. Any anticipated cost savings under the bill as amended may be offset by the closing of the defined benefit system. The implications of a decreasing contribution stream and an increasing benefit payout stream of a closed plan changes the risks of financing these benefits over time.

- While the move from a defined benefit to a defined contribution plan transfers the portion of future benefit financing anticipated to be derived from investment returns, it will take a significant period of time before that risk transfer materially reduces the funding obligations. In the meantime, the higher risks to the closed defined benefit plans may result in higher and more volatile costs.

SUMMARY OF ACTUARIAL COST IMPACT (CONT'D)

- It can be anticipated that financing benefits for the same participants in a closed plan through contributions will be greater than for the same participants in an open plan because of the decreasing working life of active employees and the ever decreasing period for recovery from market volatility. This will likely lead to the need for more conservative assumptions and result in overall higher costs. Therefore, in a closed plan, it is reasonable to expect lower investment returns on assets needed to meet increasingly shorter term obligations as time goes on. Using a lower investment return to value the plan's obligations will result in a higher liability and higher contributions.

- The Commission's consulting actuary concluded that the modifications to the long-term interest rates and amortization periods used in the Hay analysis were reasonable. However, Hay Group did not provide an analysis of how they arrived at the interest rate structure. The Commission's consulting actuary suggests that Hay Group and SERS seek advice from the SERS' investment consultant on the most appropriate interest rate structure, given the System's projected liquidity needs.

- Cheiron was provided with copies of work prepared by Milliman, Inc. for the Office of the Budget. In their work product, Milliman acknowledges that in the future the investment rate of return assumption will need to be lowered due to increased liquidity requirements resulting from closure of the defined benefit plan. However, Milliman asserts that the investment rate of return does not need to be lowered during the projection period because the liquidity requirements of the System will not materially change during that period. Milliman bases their liquidity analysis on a "liquidity ratio" defined as the expected benefit payments in the upcoming year divided by the market value of assets. The Commission's consulting actuary does not consider this method to be an appropriate measure of liquidity since not all of the System's assets are liquid. Milliman should consider comparing the contributions coming into the System to the benefit payments and whether there is a negative cash flow.

Desirability of Further Analysis.

- The Commission's consulting actuary has concluded that the cost estimate prepared by Hay Group reflects a single alternative analysis of the implications of future investment returns and amortization periods. The Commission's consulting actuary has indicated that a more robust analysis using multiple scenarios or a stochastic analysis that measures the sensitivity of the System, the magnitude of the potential future cost and future implications would be more valuable to policymakers in understanding the implication of the additional

SUMMARY OF ACTUARIAL COST IMPACT (CONT'D)

risk the bill presents to the long-term solvency of the System, relative to the sustainable level of potential costs.

Governmental Accounting Board Statements Number 67 and 68.

- Finally, many of these issues may also become significant regardless of the System's or the Commonwealth's funding policies because of the new reporting obligations under Governmental Accounting Standards Board (GASB) statement number 67 and 68, which will require more rapid recognition of changes in the net unfunded liability and the reporting of these amounts on the Commonwealth's balance sheet. So while the current methods may act to defer the funding obligations, the new accounting standards will require full recognition of the unfunded liabilities in the Commonwealth's financial statements.

POLICY CONSIDERATIONS

In reviewing the bill and amendments, the Commission identified the following policy considerations.

Potential Contract Impairment. Historically, public employee retirement benefits are recognized as deferred compensation for work already performed, which confers upon public employees certain contractual rights protected by the Pennsylvania Constitution (Article I, section 17). As written, the active member benefit modifications proposed in the amendments may be found to impair the benefit rights of the affected active members.

Benefit Value and Security. While a detailed benefit comparison was beyond the scope of this actuarial note, the DC plan proposed in the bill would provide new state employees and employees returning after a break in service with a retirement income that is likely to be less valuable, predictable and secure than that provided by the traditional DB pension plan. Retirement planning based on projected DC account balances is likely to be less predictable and involve greater individual attention to risk management than participation in a traditional DB plan. The General Assembly and the Governor must determine the appropriateness of such a change in the Commonwealth's public pension policy.

POLICY CONSIDERATIONS (CONT'D)

Delegation of Legislative Authority. The bill empowers the Board of the System to develop the details of major DC plan design elements and administrative details by rule or regulation. The General Assembly and the Governor must determine if the broad powers afforded the Board constitutes an appropriate delegation of legislative authority.

Technical Operational Issues. In reviewing the bill and amendments, the Commission staff noted the following technical operational issues.

Closed Group Funding Dynamics. The bill would close SERS to new entrants effective 2015, substituting membership in the System with participation in a DC plan for new employees and employees returning after a break in service. In its work product, the consulting actuary for SERS describes the major issues associated with the funding dynamics of a defined benefit retirement system that has been closed to new entrants. Amortization periods that exceed the average remaining service of active members, and the manner in which investment return assumptions are set by the retirement system boards will all require review and adjustment if the bill becomes law. Generally, shorter amortization periods combined with reductions in investment return assumptions in order to ensure liquidity to pay benefits when due would have the effect of increasing employer contribution requirements.

Risk Sharing. Under the defined benefit structure of SERS, all of the longevity risk (the risk of members outliving their retirement income) and most of the investment risk is borne by the retirement system. Under current law, only those members subject to Act 120 of 2010 (Classes A-3 and A-4) share in the investment risk of the System through the shared-risk contribution requirement imposed by Act 120. All pre-Act 120 members of the System are exempt from the shared-risk contribution requirement. Under the bill, all new employees would be enrolled in a DC plan and would be required to bear all of the investment risk and longevity risk associated with managing their retirement accounts. This situation creates significant risk-sharing disparities among various cohorts of employees.

*Retired Employee Health Program***.** The Retired Employee Health program (REHP) is administered jointly by the Governor's Office of Administration and SERS. The REHP provides for Commonwealth-subsidized post-retirement healthcare benefits to employees of most Commonwealth agencies. Eligibility

POLICY CONSIDERATIONS (CONT'D)

for these benefits is tied to an employee's years of credited service in SERS and an employee's age at retirement. Because a participant in the Plan would not accrue credited service in the System, it is unclear how or if REHP participation would be incorporated into the DC plan.

COMMISSION RECOMMENDATION

The Commission voted to attach the actuarial notes to the bill and amendments, recommending that the General Assembly and the Governor consider the policy issues identified above.

ATTACHMENTS

Actuarial note provided by Kenneth Kent of Cheiron, Inc., consulting actuary for the Public Employee Retirement Commission.

Actuarial cost estimates provided by the Hay Group, consulting actuary for the State Employees' Retirement System.

House Bill Number 1353, Printer's Number 1847.

Amendments Number 02204.

Amendments Number 02259.

Milliman actuarial analyses provided by Charles B. Zogby, Secretary, Office of the Budget.

Testimony of Josh B. McGee, Ph.D., Vice President for Public Accountability, Laura and John Arnold Foundation.

Testimony of David Draine, Senior Researcher, Pew Charitable Trusts.

June 24, 2013

James L. McAneny
Executive Director
Public Employee Retirement Commission
510 Finance Building
Harrisburg, PA 17120

Re: House Bill No. 1352 (Printer's No. 1846), including Amendments
House Bill No. 1353 (Printer's No. 1847), including Amendments

Dear Jim,

We are writing with regard to House Bill No. 1352 (HB 1352) and House Bill No. 1353 (HB 1353), including the amendments to the bills, as it pertains to the Public School Employees' Retirement System (PSERS) and the State Employees' Retirement System (SERS), respectively.

General Implications of Closing the Defined Benefit Plans

The two bills close the defined benefit plans to future members. The closing of the plans to future employees does not change the ultimate value of benefits that will be paid out to all current State employees covered by the two plans. While these amounts are based on contingent events for each participant, ultimately the obligation regarding what they receive and how long they receive retirement income is not affected by the exclusion of new members.

However what is impacted is the source for funding these obligations over time. The funding of benefits comes from cash contributions and investment income on the asset buildup.

The implications of a decreasing contribution stream and an increasing benefit payout stream of a closed plan changes the risks of financing these benefits over time. While the move from a defined benefit to a defined contribution plan transfers the portion of future benefit financing anticipated to be derived from investment returns, it will take a significant period of time before that risk transfer materially reduces the Commonwealth's funding obligations. In the meantime the higher risks to the closed defined benefit plans may result in higher and more volatile costs. It can be anticipated that financing benefits for the same participants in a closed plan through contributions will be greater than for the same participants in an open plan because of the decreasing working life of actives and the ever decreasing period for recovery from market volatility. This will lead to more conservative assumptions and overall higher costs.

It will be more difficult to recover from down markets and there will be a slower recovery in up markets as the Systems' negative cash flow (contributions less benefit payments and expenses) increases over time. Whether the assumptions and amortization methods used to determine a systematic funding policy are changed immediately or over time, they will ultimately reflect the change in the Systems to mitigate cost volatility. These factors will result in higher costs and riskier Systems that may need to be mitigated though changes in asset allocation, expected future return assumptions and funding policy.

Summary of HB 1352 and HB 1353, including Amendments

Benefit Reforms

Our understandings of the House Bills we have been asked to review are as follows:

HB 1352 would establish the School Employees' Defined Contribution Plan effective July 1, 2015. All new school employees or employees hired after a break in service would become participants in the defined contribution (DC) plan. Membership in PSERS would be closed to all new or rehired employees. Participants would be required to contribute 4.0% of compensation. Employers would also contribute 4% of compensation. Both participant and employer contributions would vest immediately.

HB 1353 would establish the State Employees' Defined Contribution Plan effective January 1, 2015. All new state employees or employees hired after a break in service would become participants in the defined contribution (DC) plan. Membership in SERS would be closed to all new or rehired employees. Participants would be required to contribute 4.0% of compensation. Employers would be required to contribute 12.2% of compensation for state police, 5.5% of compensation for hazardous duty employees (including park rangers and capitol police) and 4.0% for all other state employees. Both participant and employer contributions would vest immediately.

HB 1352 and HB 1353 would allow current members to make a onetime irrevocable election to transfer into the DC plan on a prospective basis.

There are two amendments attached to both HB 1352 and HB 1353 which would modify benefits for current members. One amendment would modify the calculation of average final salary. Final average salary for service performed on or after July 1, 2015 for PSERS and January 1, 2015 for SERS would be determined by averaging the member's highest five fiscal years of compensation. (The current averaging period is three years for PSERS, one year for SERS state police and three years for all other SERS members.) In addition, for purposes of this calculation, compensation in any fiscal year would be limited to 110 percent of the average compensation received by the member in the prior four fiscal years. Compensation for both part-time service and partial years of service would be annualized for these purposes.

The other amendment would eliminate the subsidy for option 4 withdrawals for service performed on or after July 1, 2015 for PSERS and on or after January 1, 2015 for SERS. Members who elect a lump sum withdrawal of their contributions and interest at retirement attributable to service performed on or after July 1, 2015 for PSERS and January 1, 2015 for SERS will have their annuities adjusted so that the withdrawal does not create an actuarial cost to the systems.

Funding Reforms

HB 1352 and HB 1353 would also modify the funding of the Systems.

Any change in the unfunded accrued liability resulting from this proposed legislation would be funded over 10 years for PSERS and 20 years for SERS. Previously, the Code was silent as to how to amortize reductions in the accrued liability due to legislation. In addition, for both PSERS and SERS, the unfunded accrued liability rate will be determined based on the total DB and DC payroll. Therefore, the DC participant employers would be paying not only their employer contributions for the DC plan, but also part of the unfunded accrued liability of the DB plans.

For SERS, HB 1353 calls for a fresh start (i.e., resets the amortization period to 30 years) for all outstanding liability balances other than the decrease in liability due to the benefit reductions resulting from HB 1353.

As a closed system, the 30 years for SERS to amortize any future changes will move an increasingly significant portion of such change well beyond the average future working lifetime of the active members transferring the costs to future generations of defined contribution membership.

Currently the Code collars the pension contribution rate so that the current year's contribution rate cannot be more than 4.5% greater than the prior year's contribution. The collars sunset the year the actuarially required rate is less than the collared rate, at which time, the contribution rate cannot be less than the normal cost rate. HB 1352 would eliminate setting the normal cost rate as the minimum contribution rate for PSERS. HB 1353 does not eliminate setting the normal cost rate as the minimum contribution rate for SERS.

Finally, for PSERS, HB 1352 would require that the 10-year asset averaging method be constrained to be within 30% of the market value of assets.

As the Systems will mature more rapidly as closed systems, there will be higher risks of utilization of asset smoothing for funding volatility management. Ten year smoothing with a 30 percent corridor around market value may not provide enough protections against the potential risks of insolvency if the difference in actuarial to market asset hits up against the corridor. Either a tighter corridor or shorter smoothing method may need to be considered over time if not now.

Policy Considerations

In general, when a DB plan is "closed" to new hires, as would be the case under HB 1352 and 1353, the plan sponsor should evaluate the investment policy and funding policy to determine whether they are still appropriate. Consideration should be given to adopting more conservative policies now to avoid the transfer of the new risks too far into the future when a plan is closed because there is less time to fund for adverse plan experience.

Investment Policy and Return Expectations

In a closed plan, it is expected that cash flows will be increasingly negative as time goes on, that is, the benefits and expenses that are paid out to retirees during the year will be greater than the contributions coming into the system from employers and employees. This is already the case for PSERS and SERS and the magnitude of the negative cash flows will only increase under HB 1352 and HB 1353. This will require revising the investment policy so that there are always significant sufficient liquid assets available to pay benefits. The result of this more conservative asset allocation will result in a lower expected investment return. Therefore, in a closed plan, it is reasonable to expect lower investment returns on assets needed to meet increasingly shorter term obligations as time goes on. Using a lower investment return to value the plan's obligations will result in a higher liability and contributions.

Funding Policy - Amortization Method

Both PSERS and SERS have unfunded accrued liabilities, that is, there are not sufficient assets to cover the benefits that members have already accrued. PSERS is currently paying off the unfunded liability over a 24 year period as a level percent of pay. In other words, it will take 24 years, assuming no future adverse plan experience, to pay off the unfunded liability and that annual payment will increase each year by 3.5% which approximates the way payroll increases each year. Every year in which there is adverse experience, for example, if assets do not earn at least 7.5% or if salary increases are greater than expected, the unfunded liability will increase, and that increase will be paid off in 24 years. The amortization methodology of spreading the payments as a level percent of pay means that for part of the amortization period the payments will be less than the interest on the unfunded. As the actual payroll for active participants is no longer anticipated to grow, this may not remain a reasonable approach.

Because the Bills effectively call for the use of payroll in both the defined benefit and defined contribution plans to determine the accrued liability cost as a percent of payroll it is anticipated there could be a significant cost transfer relative to the defined contribution plan covered payroll. Typical alternatives will likely increase the Commonwealth's funding obligation.

For SERS, unfunded accrued liability is paid off over 30 years, however , SERS pays off the unfunded liability as a level dollar amount, that is, the payment stays the same each year. Therefore, the amortization payment is sufficient to cover the interest on the unfunded liability.

Using 24 or 30 years to pay off the unfunded liability also may not be reasonable as the number of active members decrease over time. The goal of any funding policy is to fully fund the benefit obligations at the time the member retires to pay for lifetime benefits. Therefore, SERS and PSERS should consider how long the average member is expected to work (average future working lifetime) in designing a funding policy prospectively.

Many of these issues may also become important regardless of the Systems' or Commonwealth's funding policy because of the new reporting obligations under GASB 67 and 68 which will require more rapid recognition of changes in the net unfunded liability and the reporting of these amounts on the Commonwealth's balance sheet. So while the current methods may act to defer the funding obligations the new accounting standards will require full recognition of the unfunded liabilities in the Commonwealth's financial statements.

Milliman's Work Prepared for the Office of the Budget

Cheiron was provided a copy of the work Milliman prepared for the Office of the Budget. Two of the work products were letters that Milliman sent to Mr. Zogby, dated June 18, 2013 and May 28, 2013, in response to Buck Consultant's and the Hay Group's actuarial cost notes on House Bill 1350 (HB 1350). The provisions of HB 1350 included closing both the PSERS and SERS DB plans and establishing DC plans for new hires. Both Buck Consultants and the Hay Group lowered the investment rate of return and the amortization period over the projection period in response to the closing of the DB plans. In addition, Buck changed the amortization method from level percent of pay to level dollar.

Milliman acknowledges that in the future the investment rate of return will need to be lowered due to the increase in the liquidity requirements that will eventually result from the closing of the Systems. However, they claim that the investment rate of return does not need to be lowered **during the projection period** because the liquidity requirements of the Systems do not materially change during that period. Milliman bases their liquidity analysis on a "liquidity ratio" defined as the expected benefit payments in the upcoming year divided by the market value of assets. We do not feel that this is an appropriate measure of liquidity since not all of the assets are liquid. Milliman should consider comparing the contributions coming into the Systems to the benefit payments and whether there is a negative cash flow.

What Milliman fails to represent in their argument is that when there is a negative cash-flow the actual achievable return is bias downward because in down markets there are more funds leaving the Systems than coming in and are therefore not available for investment recovery when markets reverse to produce the average expected return. While this condition exists for the Systems as open plans, once closed the expectation is for this condition to accelerate, unless contribution revenue is significantly increased to offset the benefit payout stream. With the current amortization schedule this is not an apparent anticipated strategy to mitigate the need for lower future investment expectations.

With respect to the amortization period, Milliman believed that the Hay Groups reduction in the amortization to 15 years at the end of the projection period was reasonable. They did not comment on Buck Consultant's approach to reducing the amortization period.

Milliman disagreed with Buck Consultant's recommendation to change the amortization method from level percent of pay to level dollar because the accrued liability rate will be determined based on both DB and DC payroll. However, using level percent of pay means that for a significant portion of the amortization period, the payments will be less than the interest on the unfunded liability. Therefore, the unfunded accrued liability will increase during this period and costs will be deferred to future periods. It does not seem appropriate to defer costs to future periods when the System is closed.

Financial Implications of HB 1352 and HB 1353, including Amendments

HB 1352 and HB 1353, including the amendments, have significant financial implications for PSERS and SERS. Buck Consultants prepared a cost note regarding the financial implications of HB 1352, including amendments for PSERS and the Hay Group provided a similar cost note for SERS. Cheiron reviewed both costs notes but did not perform cost calculations directly due to time constraints.

For purposes of these cost notes, both Buck Consultants and the Hay Group based their analysis on the data, methods and assumptions used in their most recent actuarial valuations with the following exceptions:

1. Buck Consultants modified the assumed rate of return for PSERS for this analysis. PSERS currently uses a 7.5% interest rate for valuing liabilities. However, for purposes of this analysis, an interest rate of 7.5% was used for valuation years through 6/30/2030, 7.0% for valuation years 6/30/2031 through 6/30/2035, 6.5% for valuation years 6/30/2036 through 6/30/2038, 6.0% for valuation years 6/30/2039 through 6/30/2040, 5.5% for valuation years 6/30/2041 through 6/30/2042, and 5.00% for valuation years 6/30/2043 through 2044.
2. The Hay Group modified the assumed rate of return for SERS for this analysis. SERS currently uses a 7.5% interest rate for valuing liabilities. However, for purposes of this analysis, an interest rate of 7.5% was used for valuation years through 12/31/2023, 7.0% for valuation years 12/31/2024 through 12/31/2033, 6.5% for valuation years 12/31/2034 through 12/31/2043 and 6.0% for valuation years 12/31/2044 and later.
3. Buck Consultants also modified the period for amortizing actuarial gains and losses. Currently actuarial gains and losses are spread over 24 years for PSERS and amortized as a level percent of pay. For purposes of this analysis, future gains and losses were amortized in **level dollars** over a 24-year closed period. However, if for the preceding fiscal year i) the System's funded ratio is at least 80% but no more than 85%, the remaining amortization period from the original 24-year closed period for the current fiscal year's accrued liability contribution cannot be less than five years, and ii) if the System's funded ratio is at least 85%, the remaining amortization period from the original 24-year closed period for the current fiscal year's accrued liability contribution cannot be less than three years.

4. The Hay Group also modified the period for amortizing actuarial gains and losses for SERS. Currently actuarial gains and losses are spread over 30 years and amortized as a level dollar. For purposes of this analysis, for valuation years from 12/31/2012 through 12/31/2023 the amortization period will remain at 30 years, for valuation years 12/31/2024 through 12/31/2033, the amortization period will be 25 years, for valuation years 12/31/2034 through 12/31/2043, the amortization period will be 20 years, and for valuation years on or after 12/31/2044, the amortization period will be 15 years.

As previously discussed, it is reasonable to assume that long-term, investment returns experience will be lower under a closed plan. The interest rate assumption used by Buck Consultants for valuing PSERS liabilities was provided by Wilshire, PSERS's investment consultant, and was based on i) future expected benefit commitments, ii) an investment horizon which covers fiscal years 2013 through 2046, iii) the illiquidity of certain investment classes, and iv) expected reduction of risk and surplus volatility over the period to minimize employer contribution requirements while securing assets for benefit commitments.

The Hay Group did not provide an analysis of how they arrived at the interest rate structure. We would advise the Hay Group and SERS to get input from their investment consultant as to the appropriate interest rate structure.

With regard to the amortization method and period, we find it reasonable to use level dollar amortization with a closed plan because payroll will be decreasing over time. We also find it appropriate to lower the amortization period as time goes on in a closed plan. Both Buck Consultants and the Hay Group have taken different approaches to lowering the amortization period. While both approaches could be considered reasonable, we suggest that both Buck Consultants and the Hay Group consider how long the average member is expected to work (average future working lifetime) in evaluating the amortization period.

The cost notes prepared by Buck Consultants and the Hay Group reflect a single alternative analysis of the implications of future investment returns and amortization periods. We believe a more robust analysis using multiple scenarios or a stochastic analysis that measures the sensitivity of the Systems, the magnitude of the potential future cost and implications in the future would be more valuable to the legislature to understand the implication of the additional risk these two Bills present to the long term solvency of the Systems relative to the sustainable level of potential costs.

Neither Buck Consultants nor the Hay Group assumed current members would elect to transfer into the DC plan. We believe this to be a reasonable assumption. There is no available data to indicate what percentage of current active members will elect to transfer into the DC plans. However, we expect the percentage to be relatively low since the benefits under the DC plan will be smaller than the benefits provided under PSERS and SERS. There will probably be some degree of "anti-selection" if HB 1352 and HB 1352 are enacted, because we would expect that current members will elect to transfer into the DC plans only if it is favorable to them. For example, it is possible that members who expect to terminate prior to becoming vested will elect to transfer into the DC plans since members are immediately vested in both the participant and employer contributions.

The transfer option can however be a source of additional cost. There is a higher likelihood that younger shorter service employees may choose this election. Among this group of participants the employee contribution rate may cover all of the value of their benefit accruals and potentially exceed the value of benefit accruals in early years, actually providing a subsidy of cost. If this is the case their election could also be a source of cost increase, however we still anticipate there to be a low incidence of transfer.

Tables 1, 2, 3, and 4 provide a projection of the employer contribution rates, unfunded accrued liability and funded ratios under HB 1352 and 1353, including amendments. Tables 5 and 6 show the total projected cost/(savings) for PSERS and SERS, respectively. It should be noted that in Tables 5 and 6, the total cost has not been adjusted for the time value of money, and therefore should not be construed as a current economic cost or savings. These tables summarize the results of the cost notes prepared by Buck Consultants (letter dated June 19, 2013) and the Hay Group (letter dated June 20, 2013). Cheiron has not audited these results. Due to time constraints, we have not received sufficient data to allow us to perform our own analysis of these bills.

Table 1
Public School Employees' Retirement System
Projection of Employer Contribution Rates

	Current Law Employer Contribution		House Bill 1352 DB and DC Employer Contributions		Increase/Decrease
Fiscal Year Ending June 30	Rate	Amount (Thousands)	Rate	Amount (Thousands)	Amount (Thousands)
2011	5.64 %		5.64%		
2012	8.65		8.65		
2013	12.36	$1,767,109	12.36	$1,767,109	$0
2014	16.93	2,322,796	16.93	2,322,796	0
2015	21.31	3,000,753	21.31	3,000,753	0
2016	25.80	3,728,584	25.67	3,709,797	(18,787)
2017	28.30	4,204,274	31.37	4,660,356	456,082
2018	29.15	4,453,356	31.72	4,845,984	392,629
2019	30.14	4,740,395	32.39	5,094,273	353,878
2020	30.87	5,000,899	32.70	5,297,357	296,458
2021	30.78	5,136,766	31.80	5,306,990	170,224
2022	30.76	5,290,608	31.04	5,338,767	48,159
2023	30.93	5,482,478	30.58	5,420,439	(62,039)
2024	30.97	5,656,199	29.96	5,471,738	(184,461)
2025	31.02	5,835,424	29.33	5,517,505	(317,920)
2026	31.05	6,012,783	28.71	5,559,645	(453,137)
2027	31.10	6,196,229	28.08	5,594,538	(601,692)
2028	31.14	6,379,397	27.44	5,621,408	(757,989)
2029	31.15	6,558,890	26.78	5,638,751	(920,140)
2030	31.19	6,746,325	26.15	5,656,184	(1,090,140)
2031	31.23	6,937,124	25.53	5,670,982	(1,266,142)
2032	31.27	7,130,031	24.93	5,684,415	(1,445,615)
2033	31.32	7,329,755	29.15	6,821,914	(507,841)
2034	31.38	7,536,595	28.40	6,820,883	(715,712)
2035	31.43	7,746,719	27.66	6,817,507	(929,212)
2036	18.52	4,684,868	26.94	6,814,813	2,129,945
2037	15.21	3,948,472	22.69	5,890,258	1,941,786
2038	13.66	3,639,919	29.46	7,850,074	4,210,155
2039	11.72	3,206,328	20.43	5,589,187	2,382,860
2040	10.09	2,835,175	19.79	5,560,764	2,725,589
2041	8.54	2,466,175	27.93	8,065,604	5,599,429
2042	7.29	2,164,971	20.34	6,040,535	3,875,565
2043	5.90	1,803,558	23.56	7,202,005	5,398,447
2044	4.81	1,514,881	17.30	5,448,532	3,933,651
2045	4.69	1,521,814	21.24	6,891,968	5,370,154
2046	4.49	1,501,033	15.76	5,268,661	3,767,627

Table 2
Public School Employees' Retirement System
Projection of Funded Ratio and Unfunded Accrued Liability

	Funded Ratio Employer Contribution		Unfunded Accrued Liability (Millions)	
Fiscal Year Ending June 30	Current Law	House Bill 1352	Current Law	House Bill 1352
2011	69.1%	69.1 %	$26,499.3	$26,499.3
2012	66.4	66.4	29,533.0	29,533.0
2013	63.7	64.6	32,962.8	31,645.0
2014	61.5	62.5	35,966.2	34,549.5
2015	59.7	60.7	38,780.8	37,190.6
2016	58.5	59.6	41,099.7	39,364.6
2017	57.2	58.8	43,620.1	41,272.5
2018	56.6	58.5	45,610.2	42,674.4
2019	57.8	60.1	45,599.5	42,076.5
2020	59.1	61.7	45,486.0	41,396.6
2021	60.0	62.9	45,701.6	41,135.2
2022	61.4	64.3	45,466.6	40,517.5
2023	62.9	65.9	44,957.7	39,713.7
2024	64.5	67.5	44,175.3	38,747.8
2025	66.3	69.1	43,137.0	37,627.6
2026	68.3	70.8	41,799.3	36,347.3
2027	70.4	72.5	40,144.8	34,909.2
2028	72.6	74.3	38,161.1	33,320.9
2029	74.9	76.1	35,831.9	31,587.6
2030	77.4	77.9	33,125.5	29,700.0
2031	80.1	76.6	30,008.2	33,342.1
2032	82.9	78.2	26,447.0	31,520.6
2033	85.9	80.5	22,404.4	28,477.3
2034	89.0	83.0	17,839.3	25,209.3
2035	92.4	85.5	12,706.7	21,703.1
2036	94.0	84.7	10,235.5	23,893.3
2037	95.3	86.5	8,302.8	21,173.0
2038	96.4	89.6	6,517.5	16,377.8
2039	97.3	88.1	5,016.4	19,603.2
2040	98.0	89.7	3,762.3	16,910.2
2041	98.6	89.5	2,767.2	17,871.6
2042	99.0	91.3	1,991.7	14,575.6
2043	99.2	90.4	1,512.4	16,551.1
2044	99.4	92.0	1,287.0	13,732.5
2045	99.5	94.4	1,038.2	9,377.8
2046	99.6	96.1	789.5	6,404.2

Table 3

State Employees' Retirement System
Projection of Employer Contribution Rates

	Current Law Employer Contribution		House Bill 1353 DB and DC Employer Contributions		Increase/Decrease
Fiscal Year	Rate	Amount (Millions)	Rate	Amount (Millions)	Amount (Millions)
2012/2013	11.50 %	$677.4	11.50	$677.4	-
2013/2014	16.00	933.8	16.00	933.8	-
2014/2015	20.50	1,233.0	20.49	1,232.4	$(0.6)
2015/2016	25.00	1,549.5	24.97	1,547.9	(1.6)
2016/2017	29.50	1,884.1	28.63	1,828.7	(55.4)
2017/2018	31.43	2,068.9	27.87	1,834.1	(234.8)
2018/2019	30.82	2,090.6	27.19	1,843.9	(246.7)
2019/2020	30.13	2,105.8	26.52	1,853.3	(252.5)
2020/2021	29.45	2,121.3	25.87	1,863.3	(258.0)
2021/2022	28.80	2,137.3	25.24	1,873.3	(264.0)
2022/2023	28.16	2,153.9	24.63	1,883.7	(270.2)
2023/2024	27.55	2,171.1	24.04	1,894.7	(276.4)
2024/2025	26.95	2,188.8	23.46	1,905.7	(283.1)
2025/2026	26.37	2,207.1	24.95	2,088.1	(119.0)
2026/2027	25.81	2,225.9	24.33	2,098.3	(127.6)
2027/2028	25.26	2,245.4	23.73	2,108.8	(136.6)
2028/2029	24.73	2,265.4	23.14	2,119.7	(145.7)
2029/2030	24.22	2,286.1	22.58	2,131.1	(155.0)
2030/2031	23.72	2,307.4	22.03	2,142.8	(164.6)
2031/2032	23.24	2,329.4	21.50	2,155.1	(174.3)
2032/2033	22.77	2,352.1	20.99	2,168.3	(183.8)
2033/2034	22.32	2,375.5	20.50	2,182.0	(193.5)
2034/2035	21.88	2,399.6	21.14	2,319.2	(80.4)
2035/2036	21.45	2,424.5	22.05	2,492.7	68.2
2036/2037	21.04	2,450.2	21.51	2,505.1	54.9
2037/2038	20.63	2,476.6	20.98	2,518.0	41.4
2038/2039	20.24	2,503.9	20.47	2,531.4	27.5
2039/2040	19.86	2,532.1	19.97	2,545.2	13.1
2040/2041	15.89	2,086.8	19.48	2,559.4	472.6
2041/2042	13.01	1,761.4	19.02	2,574.2	812.8
2042/2043	9.80	1,367.4	18.56	2,589.6	1,222.2
2043/2044	7.82	1,124.5	18.13	2,605.7	1,481.2
2044/2045	7.49	1,109.6	17.71	2,622.7	1,513.1
2045/2046	6.99	1,066.5	8.43	1,286.7	220.2
2046/2047	6.57	1,032.8	7.99	1,256.8	224.0
2047/2048	6.49	1,052.2	7.89	1,278.4	226.2
2048/2049	6.45	1,077.7	7.77	1,298.1	220.4
2049/2050	6.46	1,111.3	7.65	1,317.6	206.3
2050/2051	6.46	1,145.9	6.58	1,168.0	22.1
2051/2052	6.46	1,181.8	6.51	1,190.9	9.1

Table 4

State Employees' Retirement System
Projection of Funded Ratio and Unfunded Accrued Liability

	Funded Ratio Employer Contribution		Unfunded Accrued Liability (Billions)	
Fiscal Year	Current Law	House Bill 1353	Current Law	House Bill 1353
2012/2013	65.3%	65.3%	$ 14.66	$14.66
2013/2014	58.8	58.8	17.75	17.75
2014/2015	58.6	60.4	18.12	16.83
2015/2016	58.0	59.8	18.81	17.49
2016/2017	57.6	59.5	19.38	17.93
2017/2018	58.6	60.6	19.30	17.73
2018/2019	59.8	61.6	19.15	17.55
2019/2020	61.0	62.6	18.89	17.35
2020/2021	62.3	63.5	18.61	17.15
2021/2022	63.5	64.3	18.31	16.92
2022/2023	64.7	65.1	17.98	16.68
2023/2024	65.9	65.9	17.62	16.43
2024/2025	67.1	66.7	17.23	16.15
2025/2026	68.4	64.7	16.81	17.94
2026/2027	69.6	65.4	16.35	17.57
2027/2028	70.9	66.2	15.86	17.17
2028/2029	72.2	67.0	15.33	16.75
2029/2030	73.5	67.8	14.75	16.29
2030/2031	74.9	68.6	14.12	15.81
2031/2032	76.3	69.4	13.45	15.29
2032/2033	77.8	70.3	12.71	14.73
2033/2034	79.3	71.2	11.92	14.13
2034/2035	80.9	72.1	11.07	13.49
2035/2036	82.7	70.6	10.14	14.55
2036/2037	84.5	71.9	9.14	13.62
2037/2038	86.4	73.4	8.07	12.63
2038/2039	88.4	75.1	6.90	11.57
2039/2040	90.5	77.0	5.64	10.45
2040/2041	92.8	79.1	4.29	9.25
2041/2042	94.5	81.4	3.30	7.97
2042/2043	95.7	84.1	2.58	6.61
2043/2044	96.3	87.1	2.23	5.16
2044/2045	96.5	90.6	2.12	3.62
2045/2046	96.6	91.5	2.05	3.25
2046/2047	96.6	92.1	2.03	2.94
2047/2048	96.5	92.5	2.08	2.65
2048/2049	96.4	93.0	2.15	2.34
2049/2050	96.3	93.6	2.22	2.01
2050/2051	96.1	94.3	2.29	1.67
2051/2052	95.9	94.6	2.37	1.47

Table 5
Public School Employees Retirement System
Total Projected Cost/(Savings) Through FY 2052 Under HB 1352
(Amounts in Millions)

Funding Reforms	
Decrease in amortization period (from 24 years to 10 years) of the change in accrued liability due to HB 1352 benefit reforms	$ 1,146*
Sub-total Funding Reforms	$ 1,146
Benefit Reforms	
DC plan membership for employees hired after June 30, 2015	$ 6,949
Employees hired after June 30, 2015 Health Care premium assistance	(2,673)
Cost neutral Option 4	(2,639)
Final average salary	(3,127)
Sub-total Benefit Reforms	$(1,490)
Total House Bill No. 1352 Cost/(Savings)	$ (344)
Implications of financing a closed DB plan	$34,126
Potential Total House Bill No. 1352 Cost/(Savings)	$ 33,782

*In general, reducing the amortization period decreases the total amount paid due to crediting of interest. The HB 1352 benefit reforms are anticipated to decrease PSERS accrued liability. The HB 1352 funding reforms decrease the amortization period for decreases in the accrued liability due to legislation from 24 years to 10 years. Therefore, the reduction in amortization period produces less savings.

Table 6
State Employees Retirement System
Total Projected Cost/(Savings) Through FY 2052 Under HB 1353
(Amounts in Millions)

Funding Reforms	
Decrease in amortization period (from 30 years to 20 years) of the change in accrued liability due to HB 1352 benefit reforms	$ 1,865*
Sub-total Funding Reforms	1,865
Benefit Reforms	
DC plan membership for employees hired after December 31, 2015	$ (4,888)
Cost neutral Option 4	(1,230)
Final average salary	(2,608)
Sub-total Benefit Reforms	$(8,726)
Total House Bill No. 1353 Cost/(Savings)	
Implications of financing a closed DB plan	$ 10,073
Potential Total House Bill No. 1352 Cost/(Savings)	$ 3,212

*In general, reducing the amortization period decreases the total amount paid due to crediting of interest. The HB 1353 benefit reforms are anticipated to decrease SERS accrued liability. The HB 1353 funding reforms decrease the amortization period for decreases in the accrued liability due to legislation from 30 years to 20 years. Therefore, the reduction in amortization period produces less savings.

For PSERS the funded ratios are slightly higher and unfunded accrued liabilities are slightly lower initially under HB 1352. This is due to the amendments which lower the benefits for current members. However, over time, the funded ratios are lower and the unfunded liabilities are higher under HB 1352. This is the result of lowering the interest rate assumption used to value the System's obligations over time as the plan closes.

Act 120 significantly lowered the benefits for Class T-E and Class T-F members (members hired after June 30, 2011.) **The employer normal contribution rate for these members in the later years is less than the 4% employer DC contribution.** Therefore, it is more costly to enroll future members in the DC plan. In addition, the reduction in the assumed interest rate, the changes in the amortization method to level dollar, and closing the amortization period cause the cost of the plan under HB 1352 to be greater than the cost under the current plan. As a result of these factors the total employer contributions needed to fund both the DB and DC plans for PSERS are somewhat volatile over the projection period. The total employer contributions in some fiscal years are lower under HB 1352 than under the current plan while in other fiscal years it is reversed. Overall, the cumulative costs over the projection period are significantly higher under HB 1352.

For SERS, the funded ratios are slightly higher and unfunded accrued liabilities are slightly lower initially under HB 1352. This is due to the amendments which lower the benefits for current members. However, over time, the funded ratios are lower and the unfunded liabilities are higher under HB 1352. This is the result of lowering the interest rate assumption used to value the System's obligations over time as the plan closes.

The total employer contributions needed to fund both the DB and DC plans for SERS are initially lower under HB 1353 compared to the current DB plan because of the two amendments which lower the benefits for current members. However, over time, due to the closing of the DB plan and the expected reduction in the assumed interest, as modeled in the valuation of the liabilities as well as the reduction in the amortization period, the total employer cost of the DB and DC plans under HB 1353 is greater than the cost under the current plan. Overall, the cumulative employer costs under HB 1353 are slightly higher than the current plan.

Conclusions

Any anticipated cost savings under HB 1352 and HB 1353, including amendments, may be offset by the closing of these two Systems. Fundamentally the closing of the defined benefit plans will result in the re-pricing of the benefit values and ultimate shift in funding policy to meet the higher solvency risks the Commonwealth will face as these two Systems mature.

The financial results shown here are illustrations that estimate one set of scenarios of the likely pattern of projected costs resulting from HB 1352 and HB 1353, including amendments. However, actual future costs will be determined by future actuarial valuations. Consideration should be given, not only to the short term cost savings, but also to the long term implications. In addition, given the long term nature of PSERS and SERS, it is imperative to consider this analysis using conservative assumptions to determine the potential savings offset.

In preparing our comments we have reflected on the cost notes provided by Buck Consultants and the Hay Group, and on the general implications of closing defined benefit plans as described under HB 1352 and HB 1353 for PSERS and SERS. Cheiron has not audited these results. Due to time constraints, we have not received sufficient data to allow us to perform our own analysis of these Bills.

This analysis was prepared exclusively for the Public Employee Retirement Commission. It is not intended to benefit any third party and Cheiron assumes no duty or liability to any such party.

To the best of our knowledge, this report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board. Furthermore, as a credentialed actuary, I meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys and our firm does not provide any legal services or advice.

Sincerely,

Principal Consulting Actuary

Pc Tony Parisi

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Actuarial Cost Note Regarding H.B. 1353, P.N.1847 With Proposed Amendments June 19, 2013

House Bill No. 1353 (P.N. 1847) with two proposed amendments, (hereafter HB 1353), if enacted, would result in significant changes, effective January 1, 2015, to the provisions of both of Pennsylvania's statewide retirement systems. Although HB 1353 proposes nearly identical changes to both systems, this note addresses only the changes applicable to the Pennsylvania State Employees' Retirement System (SERS).

Summary

HB 1353 proposes a combination of changes effective January 1, 2015, as follows:

- A new SERS Defined Contribution (DC) plan will be implemented and will replace the current SERS Defined Benefit (DB) system for those hired after December 31, 2014.

- If amended as proposed, changes will occur to the future benefit rights of active SERS DB members under two proposed amendments. These changes will only affect benefits relating to post-December 31, 2014 service. Benefits relating to service through December 31, 2014 will continue as-is and not be impacted.

Hay Group has performed projections to estimate the cost impact if HB 1353 were enacted, based upon actuarial assumptions and methods that differ somewhat from those utilized for the most recent (December 31, 2012) annual actuarial valuation. The current actuarial valuation assumptions and methods are based upon SERS being an "open DB system" whereas HB 1353 proposes that SERS become a "closed DB system," effective January 1, 2015. Hay Group feels that the closure of the SERS DB system will eventually result in lower future annual investment returns (than the currently assumed 7.50%) and shorter required amortization periods (than the current 30 years) for funding future actuarial gains/losses

We project that HB 1353, if enacted, would initially result in annual savings in employer costs. However, beginning around 2025, due to the less favorable annual investment returns expected to be earned by the SERS fund and the shorter amortization periods expected to be used for funding actuarial gains/losses, we project that HB 1353 will cease to be a source of annual savings in employer costs, but rather, will begin to generate higher annual costs, and ultimately higher cumulative costs, relative to our projected costs for SERS as-is (the "baseline" costs).

Bottom line, Hay Group expects, based upon our projection through the end of fiscal 2052, the ultimate financial outcome of HB 1353 will be to create additional cost, in excess of $1.3 billion (as described later in this cost note), when compared to the current plan.

New Defined Contribution Plan

Under HB 1353, all State employees who begin State service on or after January 1, 2015 would not be eligible to join the current SERS DB system, but rather, would become participants in a new SERS DC plan. The bill calls for contributions to be made to the new SERS DC plan as follows:

- By participants at a rate of 4% of compensation,

- By employers of those who join upon hire/rehire at a rate of 4% of compensation, with limited exceptions as follows:
  - for hazardous duty employees (including park rangers and capitol police), at a rate of 5.5% of compensation and
  - for state police, at a rate of 12.2% of compensation.

Both employee contributions and employer contributions vest immediately.

Changes to Future DB System Benefits for Active Members

HB 1353 also calls for changes, effective January 1, 2015, to the future benefit rights of active SERS DB members. These proposed changes only affect benefits relating to post-December 31, 2014 service. Benefits relating to service through December 31, 2014 will continue to be based upon the current SERS DB provisions and, thus, are not impacted by HB 1353.

The proposed changes relating to post-2014 benefits for active SERS DB members fall into two categories, as follows:

- Elimination of Subsidy in Option 4 Withdrawals: For all active SERS DB members (other than members of Classes A-3 and A-4 who are not eligible for Option 4 withdrawals) who choose to receive an Option 4 withdrawal upon their separation from SERS, there will be a change in the manner of determining the net annuity to which they will be entitled so as to eliminate, with respect to their post-2014 employee contributions, the subsidy that has been applicable pre-HB 1353.

- Limitations on Compensation and Final Average Salary (FAS) for Pension Accruals: For all active SERS DB members, the following changes in the handling of compensation/FAS for pension accrual purposes will become effective January 1, 2015:
  - The period used for determining FAS for post-2014 pension benefit accruals will be 5 years, versus the 1 year for state police and 3 years for all others used previously; and
  - A new limitation will become applicable on the level of compensation that may be used for FAS determination purposes whereby pensionable compensation cannot exceed 110% of the average of the prior 4 years of pensionable compensation.

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HB 1353 Financing Provisions

In accordance with the provisions of HB 1353, the estimated decrease, as of December 31, 2013, in the unfunded accrued liability that results from the SERS DB changes proposed under HB 1353 is to be amortized over 30 years using a level dollar amortization method.

Also, due to the proposed closure of the SERS DB system and the resulting decline that will occur in the DB payroll, HB 1353 calls for a second change related to future financing of SERS. Namely, it proposes, effective January 1, 2015, that the contribution rate toward amortization of the unfunded liability of the SERS DB system be based upon total DB plus DC payroll.

Cost Impact of HB 1353

As requested, we have performed cost projections to approximate (i) the impact on the future funding of the SERS DB system and (ii) the future (January 1, 2015 and after) employer costs required to fund the new SERS DC plan, should HB 1353 become law.

DB System Under HB 1353: To assess the impact of HB 1353 on the future funding of the SERS DB system, Hay Group has used the results of our December 31, 2012 actuarial valuation (based upon the census and asset data, the actuarial assumptions and methods and the SERS DB benefit provisions as of December 31, 2012) and anticipated that, effective January 1, 2015, (i) the SERS DB system will be closed to new entrants, (ii) the proposed changes to future benefits for SERS active members (as described above) will take effect and (iii) the proposed changes to SERS financing (as described above) will be implemented.

- With respect to future SERS DB asset fund investments, it should be noted that, under a closed DB system, as proposed under HB 1353, the expected future liquidity requirements for this group will most likely result in gradual limitations in fund investment opportunities and a shifting to an increasingly conservative (lower risk) investment portfolio. In time, therefore, lower future annual investment returns (than the currently assumed 7.5%) can be expected.

- Similarly, in recognition of the closed group that would be covered by the SERS DB system if HB 1353 were to become law and the gradual change that would occur over future years from funding initially for a mixed active and retired population to funding eventually for a predominantly retired population, Hay Group believes that the current DB system experience gain/loss amortization period of 30 years will become excessive. Therefore, we believe it is appropriate, for purposes of these projections, to gradually shorten the gain/loss amortization period (from the 30 years currently used), ultimately to a period of only 15 years.

- Given the comments made in the preceding two bullets regarding actuarial assumptions and methods that are appropriate under a closed DB system, Hay Group has performed our HB 1353 cost projections based upon actuarial assumptions and methods that differ somewhat from those utilized by Hay Group in our December 31, 2012 "open DB system" actuarial valuation, as described more fully below.

DC Plan Under HB 1353: To assess the future (January 1, 2015 and after) employer costs required to fund the new SERS DC plan should HB 1353 become law, Hay Group has (i) projected the covered payroll (for the population that would otherwise have been covered by the SERS DB system, absent the new DC plan) beginning January 1, 2015 and (ii) projected the total annual employer costs that will apply beginning January 1, 2015. These costs were based upon HB 1353's proposed DC employer contribution rates of 12.2%, 5.5% and 4.0% for state police, hazardous duty employees and all other employees, respectively.

Projection Attached to This Cost Note

We have attached to this note a schedule that presents the results of our funding projections, based upon somewhat different actuarial assumptions and methods than those used for our December 31, 2012 actuarial valuation of SERS, currently an open DB system. In Hay Group's professional actuarial judgment/opinion, these different actuarial assumptions and methods, as described in detail below, are appropriate for projecting future costs for a closed DB system such as that proposed under HB 1353.

The attached schedule presents the results of our projection of total future employer costs under HB 1353 vs. total future employer costs based upon continuation of the current SERS DB system (i.e., the baseline costs). Although the baseline cost projections were based upon Hay Group's December 31, 2012 actuarial valuation assumptions and methods remaining in effect for the full projection period, in recognition of the closed SERS DB system (as discussed on the preceding page), the HB 1353 cost projections assume that future annual investment returns will decline (from the current 7.5%) and that future gain/loss amortization periods will be shortened (from the current 30 years), as follows:

- For valuations from December 31, 2012 through December 31, 2023, the assumed return will remain 7.50% per year (consistent with the current valuation assumption) and the gain/loss amortization period will remain 30 years (as currently applies);

- Effective with the December 31, 2024 valuation (10 years after the closure of the SERS DB system), the assumed return is reduced by 0.5%, from 7.5% to 7.0%, and the gain/loss amortization period is shortened by 5 years, from 30 years to 25 years;

- Effective with the December 31, 2034 valuation (20 years after the closure of the SERS DB system), the assumed return is reduced by another 0.5%, from 7.0% to 6.5%, and the gain/loss amortization period is shortened by another 5 years, from 25 years to 20 years;

- Effective with the December 31, 2044 valuation (30 years after the closure of the SERS DB system), the assumed return is reduced by another 0.5%, from 6.5% to 6.0%, and the gain/loss amortization period is shortened by another 5 years, from 20 years to 15 years.

Our attached funding projection schedule presents the results of our 40-year projections of future (i) SERS DB system funding (the first set of three shaded columns), (ii) SERS DC plan funding (the two unshaded columns in between the two sets of shaded columns) and (iii) DB plus DC funding expressed in dollars and as a percentage of the combined DB plus DC payrolls (the second set of two shaded columns), including a year-by-year cumulative cost comparison of the sum of (i) and (ii) relative to the baseline (our current law projection of SERS DB-Only funding results).

Projection Results

All columns of our attached cost spreadsheet, except the last two columns on the right side, present our HB 1353 employer cost projection results. The last two columns present our projected employer costs (both as a percent of payroll and in dollars) under current law (i.e., the baseline projected costs).

The "Annual (Savings)/Cost Relative to Baseline" column of our attached cost projection shows the excess (shortfall) of the projected HB 1353 annual employer cost (per the "Total DB + DC Contribution" column) versus the baseline annual cost (per the "Baseline $" column). The "Cumulative (Savings)/Cost Relative to Baseline" column of our attached cost projection shows the cumulative sum of the annual (savings)/cost relative to the baseline.

As can be seen from the negative amounts in the "Annual (Savings)/Cost Relative to Baseline" column, we project that HB 1353 would immediately result in lower-than-baseline annual employer costs (savings) and such annual savings would continue through fiscal 2025. Based upon the largest negative amount in the "Cumulative (Savings)/Cost Relative to Baseline" column being $1.3736 billion at the end of fiscal 2025, this is the point in time when the projected financial outcome of HB 1353 (a cumulative savings of just over $1.37 billion) is most favorable relative to the baseline.

However, beginning around 2025, due to less favorable annual investment returns (than the currently assumed 7.50%) expected to be earned by the SERS fund and shorter amortization periods (than the current 30 years) expected to be used for funding actuarial gains/losses, we project that HB 1353 will cease to be a source of annual savings in employer costs, but rather, will begin to generate higher annual costs, and ultimately higher cumulative costs, relative to our projected baseline costs. Therefore, looking beyond 2025, our "Cumulative (Savings)/Cost Relative to Baseline" column shows the following:

- Cumulative savings relative to baseline of:
  - $1.0532 billion seventeen years from now (at the end of fiscal 2030);
  - $0.9688 billion twenty-two years from now (at the end of fiscal 2035);
  - $0.3331 billion twenty-seven years from now (at the end of fiscal 2040);
  - $(0.2016) billion thirty-two years from now (at the end of fiscal 2045);
  - $(1.3155) billion thirty-seven years from now (at the end of fiscal 2050);
  - $(1.3467) billion (i.e., cumulative cost, not savings) thirty-nine years from now (at the end of fiscal 2052, which is the end of Hay Group's projection period).

Notes

Please note the following regarding our handling of the attached funding projections:

1. These projections are based upon the expectation that (i) for all years after 2012, the actual economic and demographic experience of SERS will be consistent with the underlying actuarial valuation assumptions, except as noted above relative to the future assumed investment returns after the year 2024, and (ii) all future DB employer contribution amounts will, in fact, be contributed as scheduled.

2. Hay Group's past convention of showing results for employer cost projections such as these as percentages of payroll to two decimal places is somewhat misleading. This level of precision is not possible for estimates of this nature.

The results shown in this cost note are reasonable actuarial results. However, a different set of results could also be considered reasonable actuarial results. The reason for this is that actuarial standards of practice describe a "best-estimate range" for each assumption, rather than a single best-estimate value. Thus, reasonable results differing from those presented in this report could have been developed by selecting different points within the best-estimate ranges for various assumptions.

The actuaries certifying to this valuation are members of the Society of Actuaries or other professional actuarial organizations, and meet the General Qualification Standards of the American Academy of Actuaries for purposes of issuing Statements of Actuarial Opinion.

Please let us know if you have any questions on any of this.

Respectfully submitted,
Hay Group, Inc.

By: ______________________	By: ______________________
Brent M. Mowery, F.S.A.	Craig R. Graby
Member American Academy of Actuaries	Member American Academy of Actuaries
Enrolled Actuary No. 11-3885	Enrolled Actuary No. 11-7319

June 19, 2013

Summary Table

Pennsylvania State Employees' Retirement System
Cost/(Savings) Allocation of Potential Projected Cost/(Savings)
Through FY 2052 Due to HB 1353 with Amendments
(Amounts in millions)

Benefit Reforms		
Amendment - Cost neutral Option 4	$	(1,230.0)
Amendment - Final average salary modification	$	(2,607.8)
DC plan membership for employees hired after December 31, 2014	$	(4,888.0)
Sub-total Benefit Reforms	$	(8,725.8)
Funding Reforms		
Decrease in amortization period (from 30 years to 20 years) of the change in accrued liability due to HB 1353 benefit reforms plus a 30-year fresh start of the remaining unfunded accrued liability as of December 31, 2014	$	1,864.8
Implications of financing a closed DB plan	$	10,072.5
Total HB 1353 Cost/(Savings) through FY 2052	$	3,211.5

Notes:

The potential cost/savings was valued in the following order:

Cost neutral Option 4
Salary limitations
DC plan
Closed DB plan financing implications
Amortization changes (including fresh start)

If a different order is used, the cost impact will vary from what is shown above.

SERS Projected Employer Contributions
(Based Upon Final December 31, 2012 Valuation)

6/20/2013

House Bill 1353 with Amendments
Closed Defined Benefit Plan Plus New Defined Contribution Plan, including the reduced future amortization periods and a
7.50% Liability Interest Rate Assumption through 2024; 7.00% Rate through 2034; 6.50% Rate through 2044; 6.00% Thereafter

Year	Investment Return	Fiscal Year	Floor Contribution	Projected DB Percent Contribution	Expected DB Plan FY Payroll ($ in millions)	Expected FY DB Contribution ($ in millions)	Expected DC Plan FY Payroll ($ in millions)	Expected FY DC Contribution ($ in millions)	Total DB+DC Contribution ($ in millions)	Total DB+DC Contribution as a % of DB+DC Pay	Annual (Savings) / Cost Relative to Baseline	Cumulative (Savings) / Cost Relative to Baseline	Funded Ratio (AV%)	UAL ($ in billions)	Funded Ratio (MV%)	Baseline: Baseline Percent	Baseline: Baseline $ ($ in millions)	Baseline: Funded Ratio (AV%)	Baseline: UAL ($ in billions)	Baseline: Funded Ratio (MV%)
2011	2.70%	2012/2013	5.10%	11.50	5,890.7	677.4	-	-	677.4	11.50	-	-	65.3	14.66	57.6	11.50	677.4	65.3	14.66	57.6
2012	12.00%	2013/2014	5.01%	16.00	5,836.4	933.8	-	-	933.8	16.00	-	-	58.8	17.75	59.0	16.00	933.8	58.8	17.75	59.0
2013	7.50%	2014/2015	5.01%	20.50	5,864.4	1,225.4	150.0	7.0	1,232.4	20.49	(0.6)	(0.6)	60.4	16.83	60.2	20.50	1,233.0	58.6	18.12	58.4
2014	7.50%	2015/2016	5.01%	25.00	5,816.7	1,530.4	381.2	17.5	1,547.9	24.97	(1.6)	(2.2)	59.8	17.49	59.6	25.00	1,549.5	58.0	18.81	57.9
2015	7.50%	2016/2017	5.01%	28.67	5,731.7	1,798.5	655.2	30.2	1,828.7	28.63	(55.4)	(57.6)	59.5	17.93	59.8	29.50	1,884.1	57.6	19.38	58.0
2016	7.50%	2017/2018	5.01%	27.92	5,631.3	1,789.9	950.4	44.2	1,834.1	27.87	(234.8)	(292.4)	60.6	17.73	60.6	31.43	2,068.9	58.6	19.30	58.7
2017	7.50%	2018/2019	5.01%	27.24	5,515.7	1,784.0	1,266.7	59.9	1,843.9	27.19	(246.7)	(539.1)	61.6	17.55	61.6	30.82	2,090.6	59.8	19.15	59.8
2018	7.50%	2019/2020	5.01%	26.58	5,401.7	1,778.2	1,587.6	75.1	1,853.3	26.52	(252.5)	(791.6)	62.6	17.35	62.6	30.13	2,105.8	61.0	18.89	61.0
2019	7.50%	2020/2021	5.01%	25.94	5,276.6	1,771.8	1,925.9	91.5	1,863.3	25.87	(258.0)	(1,049.6)	63.5	17.15	63.5	29.45	2,121.3	62.3	18.61	62.3
2020	7.50%	2021/2022	5.01%	25.32	5,147.7	1,765.1	2,274.4	108.2	1,873.3	25.24	(264.0)	(1,313.6)	64.3	16.92	64.3	28.80	2,137.3	63.5	18.31	63.5
2021	7.50%	2022/2023	5.01%	24.72	5,012.3	1,758.3	2,636.2	125.4	1,883.7	24.63	(270.2)	(1,583.8)	65.1	16.68	65.1	28.16	2,153.9	64.7	17.98	64.7
2022	7.50%	2023/2024	5.01%	24.13	4,865.7	1,751.0	3,016.1	143.7	1,894.7	24.04	(276.4)	(1,860.2)	65.9	16.43	65.9	27.55	2,171.1	65.9	17.62	65.9
2023	7.50%	2024/2025	5.01%	23.57	4,713.2	1,743.3	3,409.0	162.4	1,905.7	23.46	(283.1)	(2,143.3)	66.7	16.15	66.7	26.95	2,188.8	67.1	17.23	67.1
2024	7.50%	2025/2026	6.12%	25.56	4,553.6	1,906.0	3,816.3	182.1	2,088.1	24.95	(119.0)	(2,262.3)	64.7	17.94	64.7	26.37	2,207.1	68.4	16.81	68.4
2025	7.00%	2026/2027	6.12%	24.99	4,388.8	1,895.9	4,236.4	202.4	2,098.3	24.33	(127.6)	(2,389.9)	65.4	17.57	65.4	25.81	2,225.9	69.6	16.35	69.6
2026	7.00%	2027/2028	6.12%	24.43	4,222.2	1,885.7	4,666.1	223.1	2,108.8	23.73	(136.6)	(2,526.5)	66.2	17.17	66.2	25.26	2,245.4	70.9	15.86	70.9
2027	7.00%	2028/2029	6.12%	23.89	4,044.9	1,874.8	5,114.5	244.9	2,119.7	23.14	(145.7)	(2,672.2)	67.0	16.75	67.0	24.73	2,265.4	72.2	15.33	72.2
2028	7.00%	2029/2030	6.12%	23.36	3,860.2	1,863.5	5,578.5	267.6	2,131.1	22.58	(155.0)	(2,827.2)	67.8	16.29	67.8	24.22	2,286.1	73.5	14.75	73.5
2029	7.00%	2030/2031	6.12%	22.85	3,674.2	1,852.1	6,052.4	290.7	2,142.8	22.03	(164.6)	(2,991.8)	68.6	15.81	68.6	23.72	2,307.4	74.9	14.12	74.9
2030	7.00%	2031/2032	6.12%	22.36	3,483.8	1,840.5	6,539.5	314.6	2,155.1	21.50	(174.3)	(3,166.0)	69.4	15.29	69.4	23.24	2,329.4	76.3	13.45	76.3
2031	7.00%	2032/2033	6.12%	21.88	3,285.6	1,828.4	7,043.4	339.9	2,168.3	20.99	(183.8)	(3,349.9)	70.3	14.73	70.3	22.77	2,352.1	77.8	12.71	77.8
2032	7.00%	2033/2034	6.12%	21.41	3,082.3	1,815.9	7,561.7	366.1	2,182.0	20.50	(193.5)	(3,543.4)	71.2	14.13	71.2	22.32	2,375.5	79.3	11.92	79.3
2033	7.00%	2034/2035	6.12%	22.08	2,886.3	1,927.3	8,082.3	391.9	2,319.2	21.14	(80.4)	(3,623.8)	72.1	13.49	72.1	21.88	2,399.6	80.9	11.07	80.9
2034	7.00%	2035/2036	7.29%	23.91	2,689.5	2,074.3	8,613.7	418.4	2,492.7	22.05	68.2	(3,555.5)	70.6	14.55	70.6	21.45	2,424.5	82.7	10.14	82.7
2035	6.50%	2036/2037	7.29%	23.42	2,496.1	2,060.2	9,151.8	444.9	2,505.1	21.51	54.9	(3,500.7)	71.9	13.62	71.9	21.04	2,450.2	84.5	9.14	84.5
2036	6.50%	2037/2038	7.29%	22.94	2,301.2	2,046.0	9,702.0	472.0	2,518.0	20.98	41.4	(3,459.3)	73.4	12.63	73.4	20.63	2,476.6	86.4	8.07	86.4
2037	6.50%	2038/2039	7.29%	22.48	2,108.1	2,031.9	10,261.2	499.5	2,531.4	20.47	27.5	(3,431.8)	75.1	11.57	75.1	20.24	2,503.9	88.4	6.90	88.4
2038	6.50%	2039/2040	7.29%	22.03	1,922.6	2,018.4	10,824.0	526.8	2,545.2	19.97	13.1	(3,418.6)	77.0	10.45	77.0	19.86	2,532.1	90.5	5.64	90.5
2039	6.50%	2040/2041	7.29%	21.59	1,744.9	2,005.4	11,390.4	554.0	2,559.4	19.48	472.6	(2,946.1)	79.1	9.25	79.1	15.89	2,086.8	92.8	4.29	92.8
2040	6.50%	2041/2042	7.29%	21.17	1,572.8	1,992.9	11,963.2	581.3	2,574.2	19.02	812.8	(2,133.3)	81.4	7.97	81.4	13.01	1,761.4	94.5	3.30	94.5
2041	6.50%	2042/2043	7.29%	20.76	1,406.7	1,980.8	12,542.1	608.8	2,589.6	18.56	1,222.2	(911.1)	84.1	6.61	84.1	9.80	1,367.4	95.7	2.58	95.7
2042	6.50%	2043/2044	7.29%	20.36	1,247.2	1,969.2	13,127.0	636.5	2,605.7	18.13	1,481.2	570.1	87.1	5.16	87.1	7.82	1,124.5	96.3	2.23	96.3
2043	6.50%	2044/2045	7.29%	19.97	1,096.8	1,958.2	13,715.9	664.5	2,622.7	17.71	1,513.1	2,083.2	90.6	3.62	90.6	7.49	1,109.6	96.5	2.12	96.5
2044	6.50%	2045/2046	8.68%	12.03	955.9	594.1	14,308.5	692.6	1,286.7	8.43	220.2	2,303.3	91.5	3.25	91.5	6.99	1,066.5	96.6	2.05	96.6
2045	6.00%	2046/2047	8.68%	11.63	825.4	536.0	14,904.6	720.8	1,256.8	7.99	224.0	2,527.4	92.1	2.94	92.1	6.57	1,032.8	96.6	2.03	96.6
2046	6.00%	2047/2048	8.68%	11.57	710.4	529.3	15,499.4	749.1	1,278.4	7.89	226.2	2,753.5	92.5	2.65	92.5	6.49	1,052.2	96.5	2.08	96.5
2047	6.00%	2048/2049	8.68%	11.48	612.4	520.9	16,091.8	777.2	1,298.1	7.77	220.4	2,974.0	93.0	2.34	93.0	6.45	1,077.7	96.4	2.15	96.4
2048	6.00%	2049/2050	8.68%	11.40	496.2	510.8	16,717.5	806.8	1,317.6	7.65	206.3	3,180.3	93.6	2.01	93.6	6.46	1,111.3	96.3	2.22	96.3
2049	6.00%	2050/2051	8.68%	10.35	403.0	331.8	17,335.7	836.2	1,168.0	6.58	22.1	3,202.4	94.3	1.67	94.3	6.46	1,145.9	96.1	2.29	96.1
2050	6.00%	2051/2052	8.68%	10.31	327.6	325.4	17,952.1	865.5	1,190.9	6.51	9.1	3,211.5	94.6	1.47	94.6	6.46	1,181.8	95.9	2.37	95.9

PRINTER'S NO. 1847

THE GENERAL ASSEMBLY OF PENNSYLVANIA

HOUSE BILL

No. 1353 Session of 2013

INTRODUCED BY KAMPF, TRUITT, AUMENT, MILLARD, BLOOM, GROVE, MCGINNIS, SACCONE, GINGRICH, METCALFE, DUNBAR, STEVENSON, REGAN, HARPER, LAWRENCE, HICKERNELL, MASSER, EVERETT, GABLER, MUSTIO, F. KELLER, KILLION, EVANKOVICH, MOUL, CUTLER, MALONEY AND TURZAI, MAY 17, 2013

REFERRED TO COMMITEE ON STATE GOVERNMENT, MAY 17, 2013

AN ACT

Amending Titles 51 (Military Affairs) and 71 (State Government) of the Pennsylvania Consolidated Statutes, in Title 51, in employment preferences and pensions, further providing for military leaves of absence; in Title 71, in retirement for State employees and officers, further providing for definitions, for preliminary provisions and for membership, credited service, classes of service, and eligibility benefits, providing for State Employees' Defined Contribution Plan, further providing for contributions, for benefits and for administration, funds and accounts; and making editorial changes.

The General Assembly of the Commonwealth of Pennsylvania hereby enacts as follows:

Section 1. Section 7306(a) introductory paragraph of Title 51 of the Pennsylvania Consolidated Statutes, amended October 24, 2012 (P.L.1436, No.181), is amended and the section is amended by adding a subsection to read:

§ 7306. Retirement rights.

(a) Options available to employees.--Any employee who is a member of a retirement system other than an active member or inactive member on leave without pay of the State Employees'

Retirement System or an active participant or inactive participant on leave without pay of the State Employees' Defined Contribution Plan at the time he is granted a military leave of absence shall be entitled to exercise any one of the following options in regard thereto:

* * *

(e) Participants of the State Employees' Defined Contribution Plan.--An employee who is an active participant or inactive participant on leave without pay of the State Employees' Defined Contribution Plan at the time he is granted a military leave of absence shall be entitled to make contributions to the State Employees' Defined Contribution Trust for such leave as provided in 71 Pa.C.S. Pt. XXV (relating to retirement for State employees and officers).

Section 2. The definitions of "alternate payee," "average noncovered salary," "beneficiary," "compensation," "creditable nonstate service," "credited service," "date of termination of service," "distribution," "domestic relations order," "final average salary," "inactive member," "intervening military service," "irrevocable beneficiary," "previous State service," "reemployed from USERRA leave," "retirement counselor," "salary deductions," "special vestee," "State employee," "superannuation age" and "valuation interest" in section 5102 of Title 71, amended or added October 24, 2012 (P.L.1436, No.181), are amended and the section is amended by adding definitions to read:

§ 5102. Definitions.

The following words and phrases as used in this part, unless a different meaning is plainly required by the context, shall have the following meanings:

* * *

"Accumulated employer defined contributions." The total of the employer defined contributions paid into the trust on account of a participant's State service together with any investment earnings and losses and adjustment for fees, costs and expenses credited or charged thereon.

"Accumulated mandatory participant contributions." The total of the mandatory pickup participant contributions paid into the trust on account of a participant's State service together with any investment earnings and losses and adjustments for fees, costs and expenses credited or charged thereon.

"Accumulated total defined contributions." The total of the accumulated mandatory participant contributions, accumulated employer defined contributions and accumulated voluntary contributions, reduced by any distributions, standing to the credit of a participant in an individual investment account in the trust.

"Accumulated voluntary contributions." The total of voluntary contributions paid into the trust by a participant and any amounts rolled over by a participant or transferred by a direct trustee-to-trustee transfer into the trust together with any investment earnings and losses and adjustment for fees, costs and expenses credited or charged thereon.

* * *

"Active participant." A State employee for whom mandatory pickup participant contributions are being made to the trust or for whom such contributions otherwise required for current State service are not being made solely by reason of any provision of this part relating to the limitations under section 401(a)(17) or 415 of the Internal Revenue Code of 1986 (Public Law 99-514, 26 U.S.C. § 401(a)(17) or § 415).

* * *

"Alternate payee." Any spouse, former spouse, child or dependent of a member or participant who is recognized by a domestic relations order as having a right to receive all or a portion of the moneys payable to that member or participant under this part.

* * *

"Average noncovered salary." The average of the amounts of compensation received by an active member each calendar year since January 1, 1956, exclusive of the amount which was or could have been covered by the Federal Social Security Act[,] (42 U.S.C. § 301 et seq.), during that portion of the member's service since January 1, 1956, for which he has received social security integration credit.

* * *

"Beneficiary." The person or persons last designated in writing to the board by a member to receive his accumulated deductions or a lump sum benefit upon the death of [such] the member[.] or by a participant to receive the participant's accumulated total defined contributions or a lump sum benefit upon the death of the participant.

* * *

"Combined service employee." A current or former State employee who is both a member of the system and a participant in the plan.

* * *

"Compensation." Pickup contributions and mandatory pickup contributions plus remuneration actually received as a State employee excluding refunds for expenses, contingency and accountable expense allowances; excluding any severance payments or payments for unused vacation or sick leave; and excluding payments for military leave and any other payments made by an employer while on USERRA leave, leave of absence granted under 51 Pa.C.S. § 4102 (relating to leaves of absence for certain government employees), military leave of absence granted under 51 Pa.C.S. § 7302 (relating to granting military leaves of absence) or other types of military leave, including other types of leave payments, stipends, differential wage payments as defined in IRC § 414(u)(12) and any other payments: Provided, however, That compensation received prior to January 1, 1973, shall be subject to the limitations for retirement purposes in effect December 31, 1972, if any: Provided further, That the limitation under section 401(a)(17) of the Internal Revenue Code of 1986 (Public Law 99-514, 26 U.S.C. § 401(a)(17)) taken into account for the purpose of member contributions, including any additional member contributions in addition to regular or joint coverage member contributions and Social Security integration contributions, regardless of class of service, shall apply to each member who first became a member of the State Employees' Retirement System on or after January 1, 1996, and who by reason of such fact is a noneligible member subject to the application of the provisions of section 5506.1(a) (relating to annual compensation limit under IRC § 401(a)(17)) <u>and shall apply to each participant</u>.

* * *

"Creditable nonstate service." Service other than:

(1) service as a State employee;

(2) service converted to State service pursuant to section 5303.1 (relating to election to convert county

service to State service); or

(3) school service converted to State service pursuant to section 5303.2 (relating to election to convert school service to State service)

for which an active member may obtain credit in the system.

"Credited service." State or creditable nonstate service for which the required contributions have been made to the fund or for which the contributions otherwise required for such service were not made solely by reason of section 5502.1 (relating to waiver of regular member contributions and Social Security integration member contributions) or any provision of this part relating to the limitations under section 401(a)(17) or 415(b) of the Internal Revenue Code of 1986 (Public Law 99-514, 26 U.S.C. § 401(a)(17) or 415(b)), or for which salary deductions to the system or lump sum payments have been agreed upon in writing.

"Date of termination of service." The last day of service for which:

(1) pickup contributions are made for an active member [or] ;

(2) in the case of an inactive member on leave without pay, the date of his resignation or the date his employment is formally discontinued by his employer[.];

(3) mandatory pickup participant contributions are made for an active participant;

(4) in the case of an inactive participant on leave without pay, the date of his resignation or the date his employment is formally discontinued by his employer; or

(5) in the case of a combined service employee, the latest of the dates in paragraphs (1), (2), (3) and (4).

* * *

"Distribution." Payment of all or any portion of a person's interest in either the State Employees' Retirement Fund or the State Employees' Defined Contribution Trust or both which is payable under this part.

"Domestic relations order." Any judgment, decree or order, including approval of a property settlement agreement, entered on or after the effective date of this definition by a court of competent jurisdiction pursuant to a domestic relations law which relates to the marital property rights of the spouse or former spouse of a member or participant, including the right to receive all or a portion of the moneys payable to that member or participant under this part in furtherance of the equitable distribution of marital assets. The term includes orders of support as that term is defined by 23 Pa.C.S. § 4302 (relating to definitions) and orders for the enforcement of arrearages as provided in 23 Pa.C.S. § 3703 (relating to enforcement of arrearages).

* * *

"Employer defined contributions."

(1) Unless paragraph (2) applies, contributions equal to 4% of an active participant's compensation which are made by the Commonwealth or other employer for current service to the trust to be credited in the participant's individual investment account.

(2) (i) For Pennsylvania State Police, contributions equal to 12.2% of an active participant's compensation which are made by the Commonwealth for current service to the trust to be credited in the participant's individual investment account.

(ii) <u>For an enforcement officer, correction officer, psychiatric security aide, Delaware River Port Authority policeman, park ranger or Capitol police officer, contributions equal to 5.5% of an active participant's compensation which are made by the Commonwealth or other employer for current service to the trust to be credited in the participant's individual investment account.</u>

* * *

"Final average salary." The highest average compensation received as a member during any three nonoverlapping periods of four consecutive calendar quarters during which the member was a State employee, with the compensation for part-time service being annualized on the basis of the fractional portion of the year for which credit is received; except if the employee was not a member for three nonoverlapping periods of four consecutive calendar quarters, the total compensation received as a member, annualized in the case of part-time service, divided by the number of nonoverlapping periods of four consecutive calendar quarters of membership; in the case of a member with multiple service, the final average salary shall be determined on the basis of the compensation received by him as a [State employee] <u>member of the system</u> or as a school employee <u>other than as a participant in the School Employees' Defined Contribution Plan</u>, or both; in the case of a member with Class A-3 or Class A-4 service and service in one or more other classes of service, the final average salary shall be determined on the basis of the compensation received by him in all classes of State service <u>credited in the system</u>; and, in the case of a member who first became a member on or after January 1, 1996, the final average salary shall be determined as hereinabove provided but subject to the application of the provisions of section 5506.1(a) (relating to annual compensation limit under IRC § 401(a)(17)). Final average salary shall be determined by including in compensation payments deemed to have been made to a member reemployed from USERRA leave to the extent member contributions have been made as provided in section 5302(f)(2) (relating to credited State service) and payments made to a member on leave of absence under 51 Pa.C.S. § 4102 (relating to leaves of absence for certain government employees) as provided in section 5302(f)(6).

* * *

"Inactive member." A member for whom no pickup contributions are being made <u>to the fund</u>, except in the case of an active member for whom such contributions otherwise required for current State service are not being made solely by reason of section 5502.1 (relating to waiver of regular member contributions and Social Security integration member contributions) or any provision of this part relating to the limitations under section 401(a)(17) or 415(b) of the Internal Revenue Code of 1986 (Public Law 99-514, 26 U.S.C. § 401(a)(17) or 415(b)), but who has accumulated deductions standing to his credit in the fund and who is not eligible to become or has not elected to become a vestee or has not filed an application for an annuity.

<u>"Inactive participant." A participant for whom no mandatory pickup participant contributions are being made to the trust, except in the case of an active participant for whom such contributions otherwise required for current State service are not being made solely by reason of any provision of this part relating to limitations under section 401(a)(17) or 415 of the</u>

Internal Revenue Code of 1986 (Public Law 99-514, 26 U.S.C. § 401(a)(17) or 415), but who has accumulated total defined contributions standing to his credit in the trust and who has not filed an application for an annuity.

"Individual investment account." The account in the trust to which are credited the amounts of the contributions made by a participant and the participant's employer in accordance with the provisions of this part, together with all interest and investment earnings after deduction for fees, costs, expenses and investment losses and charges for distributions.

"Intervening military service." Active military service of a member who was a State employee and active member of the system immediately preceding his induction into the armed services or forces of the United States in order to meet a military obligation excluding any voluntary extension of such service and who becomes a State employee within 90 days of the expiration of such service.

* * *

"Irrevocable beneficiary." The person or persons permanently designated by a member or a participant in writing to the State Employees' Retirement Board pursuant to an approved domestic relations order to receive all or a portion of the accumulated deductions, accumulated total defined contributions or lump sum benefit payable upon the death of such member or participant.

"Irrevocable successor payee." The person permanently designated by a participant receiving distributions in writing to the board pursuant to an approved domestic relations order to receive one or more distributions from the plan upon the death of such participant.

* * *

"Mandatory pickup participant contributions." Contributions equal to 4% of compensation that are made by the Commonwealth or other employer for active participants for current service which are picked up by the employer.

* * *

"Participant." An active participant, inactive participant or participant receiving distributions.

"Participant receiving distributions." A participant in the plan who has commenced receiving distributions from his individual investment account but who has not received a total distribution of his interest in the account.

* * *

"Plan." The State Employees' Defined Contribution Plan as established by the provisions of this part and the board.

"Plan document." The documents created by the board under section 5402 (relating to plan document) that contain the terms and provisions of the plan and trust as established by the board regarding the establishment, administration and investment of the plan and trust.

"Previous State service." Service rendered as a State employee prior to his most recent entrance in the system[.], provided that the State employee was not a participant in the plan, was not eligible to be an optional participant in the plan under section 5301(b.1) (relating to mandatory and optional membership) or was not prohibited from being a participant under section 5301(c.1) during such service.

* * *

"Reemployed from USERRA leave." Resumption of active membership or active participation as a State employee after a period of USERRA leave, provided, however, that the resumption of active membership or active participation was within the time period and under conditions and circumstances such that the State employee was entitled to reemployment rights under 38 U.S.C. Ch. 43 (relating to employment and reemployment rights of members of the uniformed services).

* * *

"Required beginning date." The latest date by which distributions of a participant's interest in his individual investment account must commence under section 401(a)(9) of the Internal Revenue Code of 1986 (Public Law 99-514, 26 U.S.C. § 401(a)(9)).

"Retirement counselor." The State Employees' Retirement System or State Employees' Defined Contribution Plan employee whose duty it shall be to advise each employee of his rights and duties as a member of the system or as a participant of the plan.

"Salary deductions." The amounts certified by the board, deducted from the compensation of an active member or active participant, or the school service compensation of a multiple service member who is an active member of the Public School Employees' Retirement System, and paid into the fund or trust.

"School Employees' Defined Contribution Plan." The defined contribution plan for school employees established under 24 Pa.C.S. Pt. IV (relating to retirement for school employees).

* * *

"Special vestee." An employee of The Pennsylvania State University who is a member of the State Employees' Retirement System with five or more but less than ten eligibility points and who has a date of termination of service from The Pennsylvania State University of June 30, 1997, because of the transfer of his job position or duties to a controlled organization of the Penn State Geisinger Health System or because of the elimination of his job position or duties due to the transfer of other job positions or duties to a controlled organization of the Penn State Geisinger Health System, provided that:

(1) subsequent to termination of State service as an employee of The Pennsylvania State University, the member has not returned to State service in any other capacity or position as a State employee;

(2) The Pennsylvania State University certifies to the board that the member is eligible to be a special vestee;

(3) the member files an application to vest the member's retirement rights pursuant to section 5907(f) (relating to rights and duties of State employees [and], members and participants) on or before September 30, 1997; and

(4) the member elects to leave the member's total accumulated deductions in the fund and to defer receipt of an annuity until attainment of superannuation age.

* * *

"State employee." Any person holding a State office or position under the Commonwealth, employed by the State Government of the Commonwealth, in any capacity whatsoever, except an independent contractor or any person compensated on a fee basis or any person paid directly by an entity other than a State Employees' Retirement System employer, and shall include members of the General Assembly, and any officer or employee of the following:

(1) (i) The Department of Education.

(ii) State-owned educational institutions.

(iii) Community colleges.

(iv) The Pennsylvania State University, except an employee in the College of Agriculture who is paid wholly from Federal funds or an employee who is participating in the Federal Civil Service Retirement System. The university shall be totally responsible for all employer contributions under [section] sections 5507 (relating to contributions to the system by the Commonwealth and other [employers).] employers before July 1, 2015) and 5507.1 (relating to contributions to the system by the Commonwealth and other employers starting July 1, 2015).

(2) The Pennsylvania Turnpike Commission, the Delaware River Port Authority, the Port Authority Transit Corporation, the Philadelphia Regional Port Authority, the Delaware River Joint Toll Bridge Commission, the State Public School Building Authority, The General State Authority, the State Highway and Bridge Authority, the Delaware Valley Regional Planning Commission, the Interstate Commission of the Delaware River Basin, and the Susquehanna River Basin Commission any time subsequent to its creation, provided the commission or authority agrees to contribute and does contribute to the fund or to the trust, from time to time, the moneys required to build up the reserves necessary for the payment of the annuities or other benefits of such officers and employees without any liability on the part of the Commonwealth to make appropriations for such purposes, and provided in the case of employees of the Interstate Commission of the Delaware River Basin, that the employee shall have been a member of the system for at least ten years prior to January 1, 1963.

(3) Any separate independent public corporation created by statute, not including any municipal or quasi-municipal corporation, so long as he remains an officer or employee of such public corporation, and provided that such officer or employee of such public corporation was an employee of the Commonwealth immediately prior to his employment by such corporation, and further provided such public corporation shall agree to contribute and contributes to the fund <u>or to the trust</u>, from time to time, the moneys required to build up the reserves necessary for the payment of the annuities <u>or other benefits</u> of such officers and employees without any liability on the part of the Commonwealth to make appropriations for such purposes.

* * *

<u>"Successor payee." The person or persons last designated by a participant receiving distributions in writing to the board to receive one or more distributions upon the death of such participant.</u>

"Superannuation age." For classes of service <u>in the system</u> other than Class A-3 and Class A-4, any age upon accrual of 35 eligibility points or age 60, except for a member of the General Assembly, an enforcement officer, a correction officer, a psychiatric security aide, a Delaware River Port Authority policeman or an officer of the Pennsylvania State Police, age 50, and, except for a member with Class G, Class H, Class I, Class J, Class K, Class L, Class M or Class N service, age 55 upon accrual of 20 eligibility points. For Class A-3 and Class A-4 service, any age upon attainment of a superannuation score of 92, provided the member has accrued 35 eligibility points, or age 65, or for park rangers or capitol police officers, age 55 with 20 years of service as a park ranger or capitol police officer, except for a member of the General Assembly, an enforcement officer, a correction officer, a psychiatric security aide, a Delaware River Port Authority policeman or an officer of the Pennsylvania State Police, age 55. A vestee with Class A-3 or Class A-4 service credit attains superannuation age on the birthday the vestee attains the age resulting in a superannuation score of 92, provided that the vestee has at least 35 eligibility points, or attains another applicable superannuation age, whichever occurs first.

* * *

<u>"Trust." The State Employees' Defined Contribution Trust established under Chapter 54 (relating to State Employees' Defined Contribution Plan).</u>

* * *

"Valuation interest." Interest at 5 1/2% per annum compounded annually and applied to all accounts <u>of the fund</u> other than the members' savings account.

* * *

<u>"Voluntary contributions." Contributions made by a participant to the trust and credited to his individual investment account in excess of his mandatory pickup participant contributions, by salary deductions paid through the Commonwealth or other employer, or by an eligible rollover or direct trustee-to-trustee transfer.</u>

Section 3. Section 5103 of Title 71 is amended to read:

§ 5103. Notice to members <u>and participants</u>.

Notice by publication, including, without being limited to, newsletters, newspapers, forms, first class mail, letters, manuals and, to the extent authorized by a policy adopted by the board, electronically, including, without being limited to, e-mail or [World Wide Web] <u>Internet</u> sites, distributed or made available to members <u>and participants</u> in a manner reasonably calculated to give actual notice of those sections of the State Employees' Retirement Code that require notice to members <u>or participants</u> shall be deemed sufficient notice for all purposes.

Section 4. Title 71 is amended by adding a section to read:

<u>§ 5104. Reference to State Employees' Retirement System.</u>

<u>(a) Construction.--As of the effective date of this section, unless the context clearly indicates otherwise, any reference to the State Employees' Retirement System in a statutory provision other than this part and 24 Pa.C.S. Pt. IV (relating to retirement for school employees) shall include a reference to the State Employees' Defined Contribution Plan and any reference to the State Employees' Retirement Fund shall include a reference to the State Employees' Defined Contribution Trust.</u>

<u>(b) Agreement.--The agreement of an employer listed in the definition of "State employee" under section 5102 (relating to definitions) or any other law to make contributions to the State Employees' Retirement Fund or to enroll its employees as members in the State Employees' Retirement System shall be deemed to be an agreement to make contributions to the State Employees' Defined Contribution Trust or to enroll its employees in the State Employees' Defined Contribution Plan.</u>

Section 5. Section 5301 heading, (a), (b), (c) and (d) of Title 71 are amended and the section is amended by adding subsections to read:

§ 5301. Mandatory and optional membership <u>in the system and participation in the plan</u>.

(a) Mandatory membership.--[Membership] <u>Unless an election</u>

to be a participant in the plan is made, membership in the system shall be mandatory as of the effective date of employment for all State employees except the following:

(1) Governor.

(2) Lieutenant Governor.

(3) Members of the General Assembly.

(4) Heads or deputy heads of administrative departments.

(5) Members of any independent administrative board or commission.

(6) Members of any departmental board or commission.

(7) Members of any advisory board or commission.

(8) Secretary to the Governor.

(9) Budget Secretary.

(10) Legislative employees.

(11) School employees who have elected membership in the Public School Employees' Retirement System.

(12) School employees who have elected membership in an independent retirement program approved by the employer, provided that in no case, except as hereinafter provided, shall the employer contribute on account of such elected membership at a rate greater than the employer normal contribution rate as determined in section 5508(b) (relating to actuarial cost method for fiscal years ending before July 1, 2015). For the fiscal year 1986-1987 an employer may contribute on account of such elected membership at a rate which is the greater of 7% or the employer normal contribution rate as determined in section 5508(b) and for the fiscal year 1992-1993 and all years after that at a rate of 9.29%.

(13) Persons who have elected to retain membership in

the retirement system of the political subdivision by which they were employed prior to becoming eligible for membership in the State Employees' Retirement System.

(14) Persons who are not members of the system and are employed on a per diem or hourly basis for less than 100 days or 750 hours in a 12-month period.

(15) Employees of the Philadelphia Regional Port Authority who have elected to retain membership in the pension plan or retirement system in which they were enrolled as employees of the predecessor Philadelphia Port Corporation prior to the creation of the Philadelphia Regional Port Authority.

(16) Employees of the Juvenile Court Judges' Commission who, before the effective date of this paragraph, were transferred from the State System of Higher Education to the Juvenile Court Judges' Commission as a result of an interagency transfer of staff approved by the Office of Administration and who, while employees of the State System of Higher Education, had elected membership in an independent retirement program approved by the employer.

(17) State employees whose most recent period of State service starts on or after January 1, 2015. For purposes of this paragraph and section 5955(c) (relating to construction of part), a State employee who is furloughed under section 802 of the act of August 5, 1941 (P.L.752, No.286), known as the Civil Service Act, and reemployed pursuant to the Civil Service Act in any class of service or civil service status which was previously held shall not be treated as having a break in State service.

(a.1) Mandatory participation in the plan.--State employees listed in subsection (a)(17) who are not listed in subsection (a)(1) through (13) shall be mandatory participants as of the most recent effective date of State service without regard to whether or not they are combined service employees.

(b) Optional membership in the system.--The State employees listed in subsection (a)(1) through (11) shall have the right to elect membership in the system on or before December 31, 2014; once such election is exercised, membership shall continue until the termination of State service or until the State employee elects to be a participant of the plan.

(b.1) Optional participation in the plan.--The State employees listed in subsection (a)(17) who also are listed in subsection (a)(1) through (10) shall have the right to elect participation in the plan; once such election is exercised, participation will be effective as of the date of election and shall continue until the termination of State service.

(c) Prohibited membership in the system.--The State employees listed in subsection (a)(12), (13), (14) [and], (15) and (17) shall not have the right to elect membership in the system.

(c.1) Prohibited participation in the plan.--The State employees listed in subsection (a)(17) who also are listed in subsection (a)(13) and (15) or who are employees of The Pennsylvania State University, the State System of Higher Education, State-owned educational institutions or community colleges shall not be eligible to participate in the plan.

(d) Return to service.--An annuitant who returns to service as a State employee before January 1, 2015, shall resume active membership in the system as of the effective date of employment, except as otherwise provided in section 5706(a) (relating to termination of annuities), regardless of the optional membership category of the position. An annuitant, inactive participant or a participant receiving distributions who returns to service as a State employee on or after January 1, 2015, shall be an active participant of the plan as of the effective date of employment unless the position is eligible for optional participation or is not eligible for participation in the plan, or except as otherwise provided in section 5706(a).

* * *

Section 6. Section 5302(a), (b), (e) and (f) of Title 71, amended October 24, 2012 (P.L.1436, No.181), are amended to read:

§ 5302. Credited State service.

(a) Computation of credited service.--In computing credited State service of a member for the determination of benefits, a full-time salaried State employee, including any member of the General Assembly, shall receive credit for service in each period for which contributions as required are made to the fund, or for which contributions otherwise required for such service were not made to the fund solely by reason of section 5502.1 (relating to waiver of regular member contributions and Social Security integration member contributions) or any provision of this part relating to the limitations under IRC § 401(a)(17) or 415(b), but in no case shall he receive more than one year's credit for any 12 consecutive months or 26 consecutive biweekly pay periods. A per diem or hourly State employee shall receive one year of credited service for each nonoverlapping period of 12 consecutive months or 26 consecutive biweekly pay periods in which he is employed and for which contributions are made to the fund or would have been made to the fund but for such waiver under section 5502.1 or limitations under the IRC for at least 220 days or 1,650 hours of employment. If the member was employed and contributions were made to the fund for less than 220 days or 1,650 hours, he shall be credited with a fractional portion of a year determined by the ratio of the number of days or hours of service actually rendered to 220 days or 1,650 hours, as the case may be. A part-time salaried employee shall be credited with the fractional portion of the year which corresponds to the number of hours or days of service actually rendered and for which contributions are made to the fund in relation to 1,650 hours or 220 days, as the case may be. In no case shall a member who has elected multiple service receive an aggregate in the two systems of more than one year of credited service for any 12 consecutive months.

(b) Creditable leaves of absence.--

(1) A member on leave without pay who is studying under a Federal grant approved by the head of his department or who is engaged up to a maximum of two years of temporary service with the United States Government, another state or a local government under the Intergovernmental Personnel Act of 1970 (5 U.S.C. §§ 1304, 3371-3376; 42 U.S.C. §§ 4701-4772) shall be eligible for credit for such service: Provided, That contributions are made in accordance with sections 5501 (relating to regular member contributions for current service), 5501.1 (relating to shared-risk member contributions for Class A-3 and Class A-4 service), 5505.1 (relating to additional member contributions) [and], 5507 (relating to contributions to the system by the Commonwealth and other employers before July 1, 2015) and 5507.1 (relating to contributions to the system by the Commonwealth and other

employers starting July 1, 2015), the member returns from leave without pay to active State service as a member of the system for a period of at least one year, and he is not entitled to retirement benefits for such service under a retirement system administered by any other governmental agency.

(2) An active member or active participant on paid leave granted by an employer for purposes of serving as an elected full-time officer for a Statewide employee organization which is a collective bargaining representative under the act of June 24, 1968 (P.L.237, No.111), referred to as the Policemen and Firemen Collective Bargaining Act, or the act of July 23, 1970 (P.L.563, No.195), known as the Public Employe Relations Act, and up to 14 full-time business agents appointed by an employee organization that represents correction officers employed at State correctional institutions: Provided, That for elected full-time officers such leave shall not be for more than three consecutive terms of the same office and for up to 14 full-time business agents appointed by an employee organization that represents correction officers employed at State correctional institutions no more than three consecutive terms of the same office; that the employer shall fully compensate the member or the participant, including, but not limited to, salary, wages, pension and retirement contributions and benefits, other benefits and seniority, as if he were in full-time active service; and that the Statewide employee organization shall fully reimburse the employer for all expenses and costs of such paid leave, including, but not limited to, contributions and payment in accordance with [sections] section 5404 (relating to

participant contributions), 5405 (relating to mandatory pickup participant contributions), 5406 (relating to employer defined contributions), 5501, 5501.1, 5505.1 [and], 5507 or 5507.1, if the employee organization either directly pays, or reimburses the Commonwealth or other employer for, contributions made in accordance with [section] sections 5404, 5405, 5406, 5507 and 5507.1.

* * *

(e) Cancellation of credited service.--All credited service in the system shall be cancelled if a member withdraws his total accumulated deductions, except that a member with Class A-3 or Class A-4 service credit and one or more other classes of service credit shall not have his service credit as a member of any classes of service other than as a member of Class A-3 or Class A-4 cancelled when the member receives a lump sum payment of accumulated deductions resulting from Class A-3 or Class A-4 service pursuant to section 5705.1 (relating to payment of accumulated deductions resulting from Class A-3 and Class A-4 service). A partial or total distribution of accumulated total defined contributions to a combined service employee shall not cancel service credited in the system.

(f) Credit for military service.--A State employee who has performed USERRA leave may receive credit in the system or participate in the plan as follows:

(1) For purposes of determining whether a member is eligible to receive credited service in the system for a period of active military service, other than active duty service to meet periodic training requirements, rendered after August 5, 1991, and that began before the effective date of this paragraph, the provisions of 51 Pa.C.S. Ch. 73

(relating to military leave of absence) shall apply to all individuals who were active members of the system when the period of military service began, even if not defined as an employee pursuant to 51 Pa.C.S. § 7301 (relating to definitions).

(1.1) State employees may not receive service credit in the system or exercise the options under 51 Pa.C.S. § 7306 (relating to retirement rights) for military leaves that begin on or after the effective date of this subsection, except as otherwise provided by this subsection.

(1.2) State employees may not participate in the plan or exercise the options under 51 Pa.C.S. § 7306 (relating to retirement rights) for military leaves that begin on or after the effective date of this paragraph, except as otherwise provided by this subsection.

(2) A State employee who has performed USERRA leave may receive credit in the system as provided by this paragraph. The following shall apply:

(i) A State employee who is reemployed from USERRA leave as an active member of the system shall be treated as not having incurred a break in State service by reason of the USERRA leave and shall be granted eligibility points as if the State employee had not been on the USERRA leave. If a State employee who is reemployed from USERRA leave as an active member of the system subsequently makes regular member contributions, additional member contributions, Social Security integration member contributions, shared-risk member contributions and any other member contributions in the amounts and in the time periods required by 38 U.S.C. Ch.

43 (relating to employment and reemployment rights of members of the uniformed services) and IRC § 414(u) as if the State employee had continued in State office or employment and performed State service and was compensated during the period of USERRA leave, then the State employee shall be granted State service credit for the period of USERRA leave. The State employee shall have the State employee's benefits, rights and obligations determined under this part as if the State employee was an active member who performed creditable State service during the USERRA leave in the job position that the State employee would have held had the State employee not been on USERRA leave and received the compensation on which the member contributions to receive State service credit for the USERRA leave were determined.

(ii) For purposes of determining whether a State employee has made the required employee contributions for State service credit for USERRA leave, if an employee who is reemployed from USERRA leave <u>as an active member of the system</u> terminates State service or dies in State service before the expiration of the allowed payment period, then State service credit for the USERRA leave will be granted as if the required member contributions were paid the day before termination or death. The amount of the required member contributions will be treated as an incomplete payment subject to the provisions of section 5506 (relating to incomplete payments). Upon a subsequent return to State service or to school service as a multiple service member, the required member contributions treated as incomplete payments shall be treated as member contributions that were either withdrawn in a lump sum at termination or paid as a lump sum pursuant to section 5705(a)(4) (relating to member's options), as the case may be.

(iii) A State employee who is reemployed from USERRA leave as an active member of the system who does not make the required member contributions or makes only part of the required member contributions within the allowed payment period shall not be granted credited service for the period of USERRA leave for which the required member contributions were not timely made, shall not be eligible to subsequently make contributions and shall not be granted either State service credit or nonstate service credit for the period of USERRA leave for which the required member contributions were not timely made.

(2.1) The following shall apply:

(i) A participant who is reemployed from USERRA leave shall be treated as not having incurred a break in State service by reason of the USERRA leave. If a participant who is reemployed from USERRA leave subsequently makes mandatory pickup participant contributions in the amounts and in the time periods required by 38 U.S.C. Ch. 43 and IRC § 414(u) as if the participant had continued in his State office or employment and performed State service and been compensated during the period of USERRA leave, the participant's employer shall make the corresponding employer defined contributions. Such an employee shall have his contributions, benefits, rights and obligations determined under this part as if he were an active participant who performed State service during the USERRA leave in the job position that he would have held had he not been on USERRA leave and received the compensation on which the mandatory pickup participant contributions to receive State service credit for the USERRA leave were determined, including the right to make voluntary contributions on such compensation as permitted by law.

(ii) A participant who is reemployed from USERRA leave who does not make the mandatory pickup participant contributions or makes only part of the mandatory pickup participant contributions within the allowed payment period shall not be eligible to make mandatory pickup participant contributions or voluntary contributions at a later date for the period of USERRA leave for which the mandatory pickup participant contributions were not timely made.

(3) A State employee who is a member of the system and performs USERRA leave from which the employee could have been reemployed from USERRA leave had the State employee returned to State service in the time frames required by 38 U.S.C. Ch. 43 for reemployment rights, but did not do so, shall be able to receive creditable nonstate service as nonintervening military service for the period of USERRA leave should the employee later return to State service as an active member of the system and is otherwise eligible to purchase the service as nonintervening military service.

(3.1) A State employee who is a participant in the plan and performs USERRA leave from which the employee could have been reemployed from USERRA leave had the employee returned to State service in the time frames required by 38 U.S.C. Ch.

43 for reemployment rights, but was not reemployed, shall not be eligible to make mandatory pickup participant contributions or voluntary contributions for the period of USERRA leave should the employee later return to State service and be a participant in the plan.

(4) [A State employee] An active member or inactive member on leave without pay who on or after the effective date of this subsection is granted a leave of absence under 51 Pa.C.S. § 4102 (relating to leaves of absence for certain government employees) or a military leave under 51 Pa.C.S. Ch. 73, that is not USERRA leave shall be able to receive creditable nonstate service as nonintervening military service should the employee return to State service as an active member of the system and is otherwise eligible to purchase the service as nonintervening military service.

(4.1) An active participant or inactive participant on leave without pay who, on or after the effective date of this paragraph, is granted a leave of absence under 51 Pa.C.S. § 4102 or a military leave under 51 Pa.C.S. Ch.73 that is not USERRA leave shall not be able to make mandatory pickup participant contributions or voluntary contributions during or for the leave of absence or military leave and shall not have employer defined contributions made during such leave, without regard to whether or not the State employee received salary, wages, stipends, differential wage payments or other payments from his employer during the leave, notwithstanding any provision to the contrary in 51 Pa.C.S. § 4102 or 51 Pa.C.S. Ch. 73.

(5) If a member dies while performing USERRA leave, then the beneficiaries or survivor annuitants, as the case may be,

of the deceased member are entitled to any additional benefits, including eligibility points, other than benefit accruals relating to the period of qualified military service, provided under this part had the member resumed and then terminated employment on account of death.

<u>(5.1) If a participant dies while performing USERRA leave, the beneficiaries or successor payees of the deceased participant are entitled to any additional benefits, other than benefit accruals relating to the period of qualified military service, provided under this part had the participant resumed and terminated employment on account of death.</u>

(6) A State employee who is on a leave of absence from his duties as a State employee for which 51 Pa.C.S. § 4102 provides that he is not to suffer a loss of pay, time or efficiency rating shall not be an active member, receive service credit or make member contributions for the leave of absence, except as provided for in this part. Notwithstanding this paragraph, any pay the member receives pursuant to 51 Pa.C.S. § 4102 shall be included in the determination of final average salary and other calculations <u>in the system</u> utilizing compensation as if the payments were compensation under this part.

Section 7. Sections 5303(b)(2), (d)(1), (e)(1) and (4), 5303.2(a) and (e), 5304(a) and (b), 5305(b) introductory paragraph and (3) and 5305.1 of Title 71 are amended to read:

§ 5303. Retention and reinstatement of service credits.

* * *

(b) Eligibility points for prospective credited service.--

* * *

(2) A special vestee or person otherwise eligible to be a special vestee who returns to State service, other than as a participant in the plan, or withdraws his accumulated deductions pursuant to section 5311 (relating to eligibility for refunds) or 5701 (relating to return of total accumulated deductions) shall receive or retain eligibility points in accordance with paragraph (1) but upon subsequent termination of State service shall only be eligible to be an annuitant, vestee or inactive member without regard to previous status as a special vestee and without regard to the provisions of this part providing for special vestees.

* * *

(d) Transfer of certain pension service credit.--

(1) Any person who was an employee of any county in this Commonwealth on the personal staff of an appellate court judge prior to September 9, 1985, and who had that employment transferred to the Commonwealth pursuant to 42 Pa.C.S. § 3703 (relating to local chamber facilities) shall be a member of the system for all service rendered as an employee of the Commonwealth on the personal staff of an appellate court judge subsequent to the date of the transfer unless specifically prohibited pursuant to section 5301(c) (relating to mandatory and optional membership in the system and participation in the plan). The employee shall be entitled to have any prior service credit in that county or other municipal pension plan or retirement system transferred to the system and deemed to be State service for all purposes under this part. However, for those employees who were in continuous county employment which commenced prior to July 22, 1983, section 5505.1 shall not apply. The transfer of

prior service credit to the system shall occur upon the transfer, by the member, county or other municipal pension plan or retirement system, to the system of the amount of accumulated member contributions, pick-up contributions and credited interest standing in the employee's county or municipal pension plan or retirement system account as of the date that these funds are transferred to the system. In the event that these funds have been refunded to the member, the transfer of service credit shall occur when the member transfers an amount equal to either the refund which the member received from the county or municipal pension plan or retirement system or the amount due under section 5504, if less. In the case of a transfer by the member, the transfer shall occur by December 31, 1987, in order for the member to receive credit for the prior service. In the case of a transfer by the county or other municipal pension plan or retirement system, the transfer shall also occur by December 31, 1987. If the amount transferred to the system by the member of a county or municipal pension plan or retirement system is greater than the amount that would have accumulated in the member's account if the employee had been a member of the system, all excess funds shall be returned to the employee within 90 days of the date on which such funds are credited to the member's account in the system. Within 60 days of receipt of written notice that an employee has elected to transfer credits under the provisions of this subsection, the county or other municipal pension plans or retirement systems shall be required to transfer to the system an amount, excluding contributions due under section 5504(a), equal to the liability of the prior service in accordance with county or other municipal pension plan or retirement system benefit provisions, multiplied by the ratio of system actuarial value of assets for active members to the system actuarial accrued liability for active members. The Public Employee Retirement Study Commission shall determine the appropriate amount of employer contributions to be transferred to the system by the county or other municipal pension plans or retirement systems.

* * *

(e) Transfer and purchase of certain pension service credit; Philadelphia Regional Port Authority.--

(1) Any employee of the Philadelphia Regional Port Authority who becomes a State employee, as defined in section 5102 (relating to definitions), <u>and an active member of the system</u> shall be eligible to obtain retirement credit for prior uncredited service with the Philadelphia Port Corporation, a Pennsylvania not-for-profit corporation ("predecessor corporation"), provided that the Commonwealth does not incur any liability for the funding of the annuities attributable to the prior, uncredited "predecessor corporation" service, the cost of which shall be determined according to paragraph (2).

* * *

(4) Any person who became employed by the Philadelphia Regional Port Authority between July 10, 1989, and passage of this act and who becomes a State employee, as defined in section 5102, <u>and an active member of the system</u> shall be eligible to obtain retirement credit for service from the date of employment with the Philadelphia Regional Port Authority, provided that the contributions are made in

accordance with sections 5501, 5504, 5505.1 and 5506.

* * *

§ 5303.2. Election to convert school service to State service.

(a) Eligibility.--An active member or inactive member on leave without pay who was an employee transferred from the Department of Education to the Department of Corrections pursuant to section 908-B of the act of April 9, 1929 (P.L.177, No.175), known as The Administrative Code of 1929, and who on the effective date of that transfer did not participate in an independent retirement program approved by the Department of Education under 24 Pa.C.S. § 8301(a)(1) (relating to mandatory and optional membership) or section 5301(a)(12) (relating to mandatory and optional membership <u>in the system and participation in the plan</u>), notwithstanding any other provision of law or any collective bargaining agreement, arbitration award, contract or term or conditions of any retirement system or pension plan, may make a one-time election to convert all service credited in the Public School Employees' Retirement System as of June 30, 1999, and transfer to the system all accumulated member contributions and statutory interest credited in the members' savings account in the Public School Employees' Retirement System as of June 30, 1999, plus statutory interest on that amount credited by the Public School Employees' Retirement System from July 1, 1999, to the date of transfer to the system.

* * *

(e) Transfer.--Within 180 days after the effective date of this subsection, the Public School Employees' Retirement System shall transfer to the board for each member electing to convert under this section the accumulated member contributions and statutory interest credited in the Public School Employees' Retirement System, plus an amount equal to the value of all annual employer contributions made to the Public School Employees' Retirement System with interest at the annual rate adopted by the board for the calculation of the normal contribution rate under section 5508(b) (relating to actuarial cost method <u>for fiscal years ending before July 1, 2015</u>), from the date of each contribution to the date of the transfer of the funds to the board. Any debt owed by a member to the Public School Employees' Retirement System for whatever reason shall be transferred to the system and shall be paid in a manner and in accordance with conditions prescribed by the board.

* * *

§ 5304. Creditable nonstate service.

(a) Eligibility.--

(1) An active member who first becomes an active member before January 1, 2011, or before December 1, 2010, as a member of the General Assembly, or a multiple service member who first becomes an active member before January 1, 2011, or before December 1, 2010, as a member of the General Assembly, and who is a school employee and an active member of the Public School Employees' Retirement System shall be eligible for Class A service credit for creditable nonstate service as set forth in subsections (b) and (c) except that intervening military service shall be credited in the class of service for which the member was eligible at the time of entering into military service and for which he makes the required contributions <u>to the fund</u> and except that a multiple service member who is a school employee and an active member of the Public School Employees' Retirement System shall not be

eligible to purchase service credit for creditable nonstate service set forth in subsection (c)(5).

(2) An active member who first becomes an active member on or after January 1, 2011, or on or after December 1, 2010, as a member of the General Assembly, or a multiple service member who first becomes an active member on or after January 1, 2011, or on or after December 1, 2010, as a member of the General Assembly, and who is a school employee and an active member of the Public School Employees' Retirement System shall be eligible for Class A-3 service credit for creditable nonstate service as set forth in subsections (b) and (c) except that intervening military service shall be credited in the class of service for which the member was eligible at the time of entering into military service and for which he makes the required contributions <u>to the fund</u> and except that a multiple service member who is a school employee and an active member of the Public School Employees' Retirement System shall not be eligible to purchase service credit for creditable nonstate service set forth in subsection (c)(5).

* * *

(b) Limitations on eligibility.--An active member or a multiple service member who is a school employee and an active member of the Public School Employees' Retirement System shall be eligible to receive credit for nonstate service provided that he does not have credit for such service in the system or in the school system and is not entitled to receive, eligible to receive now or in the future, or is receiving retirement benefits for such service in the system or under a retirement system administered and wholly or partially paid for by any other governmental agency or by any private employer, or a retirement program approved by the employer in accordance with section 5301(a)(12) (relating to mandatory and optional membership <u>in the system and participation in the plan</u>), and further provided, that such service is certified by the previous employer and contributions are agreed upon and made in accordance with section 5505 (relating to contributions for the purchase of credit for creditable nonstate service).

* * *

§ 5305. Social security integration credits.

* * *

(b) Accrual of subsequent credits.--Any <u>active</u> member who has social security integration accumulated deductions to his credit or is receiving a benefit on account of social security integration credits may accrue one social security integration credit for each year of service as a State employee on or subsequent to March 1, 1974 and a fractional credit for a corresponding fractional year of service provided that contributions are made <u>to the fund</u>, or would have been made <u>to the fund</u> but for section 5502.1 (relating to waiver of regular member contributions and Social Security integration member contributions) or the limitations under IRC § 401(a)(17) or 415(b), in accordance with section 5502 (relating to Social Security integration member contributions), and he:

* * *

(3) terminates his status as a vestee or an annuitant and returns to State service <u>as an active member of the system</u>.

* * *

§ 5305.1. Eligibility for actuarial increase factor.

A person who is:

(1) an active member;

(2) an inactive member on leave without pay; [or]

(3) a multiple service member who is a school employee and an active member of the Public School Employees' Retirement System; or

(4) a combined service employee who is an active participant or inactive participant on leave without pay

who terminates State service or school service, as the case may be, after attaining age 70 and who applies for a superannuation annuity with an effective date of retirement the day after the date of termination of State service or school service shall have that person's maximum single life annuity calculated pursuant to section 5702(a.1) (relating to maximum single life annuity).

Section 8. Section 5306(a), (a.1)(2) and (6), (a.2)(1) and (2) and (b) of Title 71 are amended and the section is amended by adding a subsection to read:

§ 5306. Classes of service.

(a) Class A and Class A-3 membership.--

(1) A State employee who is a member of Class A on the effective date of this part or who first becomes a member of the system subsequent to the effective date of this part and before January 1, 2011, or before December 1, 2010, as a member of the General Assembly, shall be classified as a Class A member and receive credit for Class A service upon payment of regular and additional member contributions for Class A service, provided that the State employee does not become a member of Class AA pursuant to subsection (a.1) [or], a member of Class D-4 pursuant to subsection (a.2) or a participant in the plan.

(2) A State employee who first becomes a member of the system on or after January 1, 2011, or on or after December 1, 2010, as a member of the General Assembly, shall be classified as a Class A-3 member and receive credit for Class A-3 service upon payment of regular member contributions and shared-risk member contributions for Class A-3 service provided that the State employee does not become a member of Class A-4 pursuant to subsection (a.3), except that a member of the judiciary shall be classified as a member of such other class of service for which the member of the judiciary is eligible, shall elect and make regular member contributions[.] and further provided that the State employee does not become a participant in the plan or is not eligible to be an optional participant of the plan under section 5301 (relating to mandatory and optional membership in the system and participation in the plan).

(a.1) Class AA membership.--

* * *

(2) A person who is a State employee on June 30, 2001, and July 1, 2001, but is not an active member of the system because membership in the system is optional or prohibited pursuant to section 5301 (relating to mandatory and optional membership in the system and participation in the plan) and who first becomes an active member after June 30, 2001, and before January 1, 2011, or before December 1, 2010, as a member of the General Assembly, and who is not a State police officer and not employed in a position for which a class of service other than Class A is credited or could be elected shall be classified as a Class AA member and receive credit for Class AA State service upon payment of regular member

contributions for Class AA service and, subject to the limitations contained in paragraph (7), if previously a member of Class A or previously employed in a position for which Class A service could have been earned, shall have all Class A State service (other than State service performed as a State Police officer or for which a class of service other than Class A was earned or could have been elected) classified as Class AA service.

* * *

(6) A State employee who after June 30, 2001, becomes a State police officer or who is employed in a position in which the member could elect membership <u>in the system</u> in a class of service other than Class AA or Class D-4 shall retain any Class AA service credited prior to becoming a State police officer or being so employed but shall be ineligible to receive Class AA credit thereafter and instead shall receive Class A credit for service as a member of the judiciary <u>if such judicial service begins before January 1, 2015,</u> or if he first became a member before January 1, 2011, or December 1, 2010, as a member of the General Assembly, or Class A-3 credit for service other than as a member of the judiciary <u>if such nonjudicial service begins before January 1, 2015,</u> and he first became a member on or after January 1, 2011, or December 1, 2010, as a member of the General Assembly, unless a class of membership other than Class A is elected.

* * *

(a.2) Class of membership for members of the General Assembly.--

(1) A person who:

(i) becomes a member of the General Assembly and an active member of the system after June 30, 2001, and before December 1, 2010; or

(ii) is a member of the General Assembly on July 1, 2001, but is not an active member of the system because membership in the system is optional pursuant to section 5301 and who becomes an active member after June 30, 2001, and before December 1, 2010;

and who was not a State police officer on or after July 1, 1989, shall be classified as a Class D-4 member and receive credit as a Class D-4 member for all State service as a member of the system performed as a member of the General Assembly upon payment of regular member contributions for Class D-4 service and, subject to the limitations contained in subsection (a.1)(7), if previously a member of Class A or employed in a position for which Class A service could have been earned, shall receive Class AA service credit for all Class A State service, other than State service performed as a State police officer or for which a class of service other than Class A or Class D-4 was or could have been elected or credited.

(2) Provided an election to become a Class D-4 member is made pursuant to section 5306.2 (relating to elections by members of the General Assembly), a State employee who was not a State police officer on or after July 1, 1989, who on July 1, 2001, is a member of the General Assembly and an active member of the system and not a member of Class D-3 shall be classified as a Class D-4 member and receive credit as a Class D-4 member for all State service as a member of the system performed as a member of the General Assembly not

credited as another class other than Class A upon payment of regular member contributions for Class D-4 service and, subject to the limitations contained in paragraph (a.1)(7), shall receive Class AA service credit for all Class A State service, other than State service performed as a State police officer or as a State employee in a position in which the member could have elected a class of service other than Class A, performed before July 1, 2001.

* * *

(b) Other class membership.--

(1) A State employee who is a member of a class of service other than Class A on the effective date of this part shall retain his membership in that class until such service is discontinued; any service as a member of the system thereafter shall be credited as Class A service, Class AA service or Class D-4 service as provided for in this section.

(2) Notwithstanding any other provision of this section, a State employee who is appointed bail commissioner of the Philadelphia Municipal Court under 42 Pa.C.S. § 1123(a)(5) (relating to jurisdiction and venue) and is eligible to be a member of the system as a bail commissioner may, within 30 days of the effective date of this sentence or within 30 days of his initial appointment as a bail commissioner, whichever is later, elect Class E-2 service credit for service performed as a bail commissioner. This class of service multiplier for E-2 service as a bail commissioner shall be 1.5.

* * *

(e) Ineligibility for active membership and classes of service.--An individual who elects to be a participant in the plan or who is a State employee on January 1, 2015, but is not a member of the system or who first becomes a State employee on or after January 1, 2015, or who returns to State service after a termination of State service, without regard to whether the termination occurred before or after January 1, 2015, shall be ineligible for active membership in the system or the several classes of State service as otherwise provided for under this section. Any such State employee, if eligible, may be a participant in the plan as a result of such State service.

Section 9. Sections 5306.1(c), 5306.2(b) and 5306.3(c) and (d) of Title 71 are amended to read:

§ 5306.1. Election to become a Class AA member.

* * *

(c) Effect of election.--An election to become a Class AA member shall become effective the later of July 1, 2001, or the date when the election is filed with the board and shall remain in effect until the termination of employment or election to be a participant in the plan. Upon termination and a subsequent reemployment that occurs before January 1, 2015, the member's class of service shall be credited in the class of service otherwise provided for in this part. If the reemployment occurs on or after January 1, 2015, the State employee's eligibility for membership in the system or participation in the plan shall be as provided in this part.

* * *

§ 5306.2. Elections by members of the General Assembly.

* * *

(b) Effect of election.--Membership as a Class D-4 member shall become effective on July 1, 2001, and shall remain in effect until the termination of service as a member of the

General Assembly or election to be a participant in the plan. Upon termination and a subsequent reemployment that occurs before January 1, 2015, the member's class of service shall be credited in the class of service otherwise provided for in this part. If the reemployment occurs on or after January 1, 2015, the State employee's eligibility for membership in the system or participation in the plan shall be as provided in this part.

* * *

§ 5306.3. Election to become a Class A-4 member.

* * *

(c) Effect of election.--An election to become a Class A-4 member shall be irrevocable and shall become effective on the effective date of membership in the system and shall remain in effect for all future [creditable] State service creditable in the system, other than service performed as a member of the judiciary and service performed after a termination and a reemployment when the reemployment occurs on or after January 1, 2015. Payment of regular member contributions for Class A-4 State service performed prior to the election of Class A-4 membership shall be made in a form, manner and time determined by the board. Upon termination and a subsequent reemployment before January 1, 2015, a member who elected Class A-4 membership shall be credited as a Class A-4 member for creditable State service performed after reemployment and before the next termination of State service or election to be a participant, except as a member of the judiciary, regardless of termination of employment, termination of membership by withdrawal of accumulated deductions or status as an annuitant, vestee or inactive member after the termination of service and before reemployment occurring before January 1, 2015.

(d) Effect of failure to make election.--Failure to elect to become a Class A-4 member within the election period set forth in subsection (b) shall result in all of the member's State service, other than service performed as a member of the judiciary, being credited as Class A-3 service<u>, unless the State employee elects or is required to be a participant in the plan,</u> and not subject to further election or crediting as Class A-4 service. Upon termination and subsequent employment, a member who failed to elect to become a Class A-4 member shall not be eligible to make another election to become a Class A-4 member for either past or future State service.

Section 10. Sections 5307(b)(1) and 5308(a) and (b) of Title 71, amended October 24, 2012 (P.L.1436, No.181), are amended and the sections are amended by adding subsections to read:

§ 5307. Eligibility points.

* * *

(b) Transitional rule.--

(1) In determining whether a member who is not a State employee or school employee on June 30, 2001, and July 1, 2001, and who has previous State service (except a disability annuitant who returns to State service after June 30, 2001, upon termination of the disability annuity) has the five eligibility points required by sections 5102 (relating to definitions), 5308(b) (relating to eligibility for annuities), 5309 (relating to eligibility for vesting), 5704(b) (relating to disability annuities) and 5705(a) (relating to member's options), only eligibility points earned by performing credited State service <u>as an active member of the system</u>, USERRA leave or credited school service <u>as an active member of the Public School Employees'</u>

Retirement System after June 30, 2001, shall be counted until such member earns one eligibility point by performing credited State service or credited school service after June 30, 2001, at which time all eligibility points as determined pursuant to subsection (a) shall be counted.

* * *

(c) Transitional rule for members electing participation.--In determining whether a State employee who is an active member or an inactive member on leave without pay on January 1, 2015, and who elects to become a participant in the plan under section 5416 (relating to election by members to be participants) has the five eligibility points required by sections 5102, 5308(b)(1), 5309(1) and 5705(a) or the ten eligibility points required by sections 5102, 5308(b)(2), 5309(2) and 5705(a), any such combined service employee shall be considered to have satisfied any requirement for five or ten eligibility points, as the case may be, if the combined service employee does not terminate State service for three or more years after the effective date of participation in the plan.

§ 5308. Eligibility for annuities.

(a) Superannuation annuity.--Attainment of superannuation age by an active member [or], an inactive member on leave without pay or a combined service employee who is an active participant or inactive participant on leave without pay with three or more eligibility points other than eligibility points resulting from nonstate service or nonschool service shall entitle him to receive a superannuation annuity upon termination of State service and compliance with section 5907(f) (relating to rights and duties of State employees [and], members and participants).

(b) Withdrawal annuity.--

(1) Any vestee or any active member [or], inactive member on leave without pay or a combined service employee who is an active participant or inactive participant on leave without pay who terminates State service having five or more eligibility points and who does not have Class A-3 or Class A-4 service credit or Class T-E or Class T-F service credit in the Public School Employees' Retirement System, or who has Class G, Class H, Class I, Class J, Class K, Class L, Class M or Class N service and terminates State service having five or more eligibility points, upon compliance with section 5907(f), (g) or (h) shall be entitled to receive an annuity.

(2) Any vestee, active member [or], inactive member on leave without pay or combined service employee who is an active participant or inactive participant on leave without pay who has Class A-3 or Class A-4 service credit or Class T-E or Class T-F service credit in the Public School Employees' Retirement System who terminates State service having ten or more eligibility points, upon compliance with section 5907(f), (g) or (h), shall be entitled to receive an annuity.

(3) Any vestee, active member [or], inactive member on leave without pay or combined service employee who is an active participant or inactive participant on leave without pay who has either Class A-3 or Class A-4 service credit or Class T-E or Class T-F service credit in the Public School Employees' Retirement System and also has service credited in the system in one or more other classes of service who has five or more, but fewer than ten, eligibility points, upon compliance with section 5907(f), (g) or (h), shall be eligible to receive an annuity calculated on his service

credited in classes of service other than Class A-3 or Class A-4, provided that the member has five or more eligibility points resulting from service in classes other than Class A-3 or Class A-4 or Class T-E or Class T-F service in the Public School Employees' Retirement System.

* * *

(d) Eligibility of combined service employees for superannuation annuity.--A State employee who is an active member or inactive member on leave without pay on January 1, 2015, and who elects to become a participant under section 5416 (relating to election by members to be participants) will be deemed to have satisfied the requirement of three or more years of credited State or school service under subsection (a) if the State employee does not terminate State service before three years after the effective date of the election to be a participant. Nothing in this subsection amends or waives any other requirement to be eligible for a superannuation annuity.

Section 11. Sections 5308.1(1) and 5311(a) of Title 71 are amended to read:

§ 5308.1. Eligibility for special early retirement.

Notwithstanding any provisions of this title to the contrary, the following special early retirement provisions shall be applicable to specified eligible members as follows:

(1) During the period of July 1, 1985, to September 30, 1991, an active member who has attained the age of at least 53 years and has accrued at least 30 eligibility points shall be entitled, upon termination of State service and compliance with section 5907(f) (relating to rights and duties of State employees [and], members and participants), to receive a maximum single life annuity calculated under section 5702

(relating to maximum single life annuity) without a reduction by virtue of an effective date of retirement which is under the superannuation age.

* * *

§ 5311. Eligibility for refunds.

(a) Total accumulated deductions.--Any active member, regardless of eligibility for benefits, may elect to receive his total accumulated deductions upon termination of service in lieu of any benefit <u>from the system</u> to which he is entitled.

* * *

Section 12. Title 71 is amended by adding a chapter to read:

<u>CHAPTER 54</u>

<u>STATE EMPLOYEES' DEFINED CONTRIBUTION PLAN</u>

<u>Sec.</u>

5415. Expenses.
5416. Election by members to be participants.
5417. Required distributions.

§ 5401. Establishment.

(a) State Employees' Defined Contribution Plan.--The State Employees' Defined Contribution Plan is established. The board shall administer and manage the plan which shall be a defined contribution plan exclusively for the benefit of those State employees who participate in the plan and their beneficiaries within the meaning of and in conformity with IRC § 401(a). The board shall determine the terms and provisions of the plan not inconsistent with this part, IRC or other applicable law and shall provide for the plan's administration.

(b) State Employees' Defined Contribution Trust.--The State Employees' Defined Contribution Trust is established as part of the State Employees' Defined Contribution Plan. The trust shall be comprised of the individual investment accounts and all assets and moneys in those accounts. The members of the board shall be the trustees of the trust established under this section which shall be administered exclusively for the benefit of those State employees who participate in the plan and their beneficiaries within the meaning of and conformity with IRC § 401(a). The board shall determine the terms and provisions of the trust not inconsistent with this part, IRC or other applicable law and shall provide for the investment and administration of the trust.

(c) Holding of assets.--All assets and income in the plan that have been or shall be withheld or contributed by the participants, the Commonwealth and other employers in accordance with this part shall be held in trust in any funding vehicle permitted by the applicable provisions of IRC for the exclusive benefit of the plan's participants and their beneficiaries until such time as the funds are distributed to the participants or their beneficiaries in accordance with the terms of the plan document. The assets of the plan held in trust for the exclusive benefit of the plan's participants and their beneficiaries may be used for the payment of the fees, costs and expenses related to the administration and investment of the plan and the trust.

(d) Name for transacting business.--All of the business of the plan shall be transacted, the trust invested, all requisitions for money drawn and payments made and all of its cash and securities and other property shall be held by the name of the "State Employees' Defined Contribution Plan," except that, any other law to the contrary notwithstanding, the board may establish a nominee registration procedure for the purpose of registering securities in order to facilitate the purchase, sale or other disposition of securities pursuant to the provisions of this part.

§ 5402. Plan document.

The board shall set forth the terms and provisions of the plan and trust in a document containing the terms and conditions of the plan and in a trust declaration that shall be published in the Pennsylvania Bulletin. The creation of the document containing the terms and conditions of the plan and the trust declaration and the establishment of the terms and provisions of the plan and the trust need not be promulgated by regulation or formal rulemaking and shall not be subject to the act of July 31, 1968 (P.L.769, No.240), referred to as the Commonwealth Documents Law. A reference in this part or other law to the plan shall include the plan document unless the context clearly indicates otherwise.

§ 5403. Individual investment accounts.

The board shall establish in the trust an individual investment account for each participant in the plan. All contributions by a participant or an employer for or on behalf of a participant shall be credited to the participant's individual investment account, together with all interest and investment earnings and losses. Investment and administrative fees, costs and expenses shall be charged to the participants' individual investment accounts. Employer defined contributions shall be recorded and accounted for separately from participant contributions, but all interest, investment earnings and losses, and investment and administrative fees, costs and expenses shall be allocated proportionately.

§ 5404. Participant contributions.

(a) Mandatory contributions.--Each participant shall make mandatory pickup participant contributions through payroll deductions to the participant's individual investment account equal to 4% of compensation for current State service. The employer shall cause such contributions for current service to be made and deducted from each payroll or on such schedule as established by the board.

(b) Voluntary contributions.--A participant may make voluntary contributions through payroll deductions or through direct trustee-to-trustee transfers or through transfers of money received in an eligible rollover into the trust to the extent allowed by IRC § 402. Such rollovers shall be made in a form and manner as determined by the board, shall be credited to the participant's individual investment account and shall be separately accounted for by the board.

(c) Prohibited contributions.--No contributions shall be allowed which would cause a violation of the limitations related to contributions applicable to governmental plans contained in IRC § 415 or in other provisions of law. In the event that any disallowed contributions are made, any participant contributions in excess of the limitations and investment earnings thereon shall be refunded to the participant by the board.

§ 5405. Mandatory pickup participant contributions.

(a) Treatment for purposes of IRC § 414(h).--All contributions to the trust required to be made under section 5404(a) (relating to participant contributions) with respect to current State service rendered by an active participant shall be picked up by the Commonwealth or other employer and shall be treated as the employer's contribution for purposes of IRC § 414(h). After the effective date of this section, an employer employing a participant in the plan shall pick up the required mandatory participant contributions by a reduction in the compensation of the participant.

(b) Treatment for other purposes.--For all purposes other than the IRC, such mandatory pickup participant contributions shall be treated as contributions made by a participant in the same manner and to the same extent as if the contributions were made directly by the participant and not picked up.

§ 5406. Employer defined contributions.

(a) Contributions for current service.--The Commonwealth or other employer of a participant shall make employer defined contributions for current service of each active participant which shall be credited to each respective participant's individual investment account.

(b) Contributions resulting from participants reemployed from USERRA leave.--When a State employee reemployed from USERRA leave makes the mandatory pickup participant contributions permitted to be made for the USERRA leave, the Commonwealth or other employer by whom the State employee is employed at the time the participant contributions are made shall make whatever employer defined contributions would have been made under this section had the employee making the participant contributions continued to be employed in the employee's State office or position instead of performing USERRA leave. Such employer defined contributions shall be placed in the participant's individual investment account as otherwise provided by this part.

(c) Limitations on contributions.--No contributions shall be allowed which would cause a violation of the limitations related to contributions applicable to governmental plans contained in IRC § 415 or in other provisions of law. In the event that any disallowed contributions are made, any employer defined contributions in excess of the limitations and investment earnings thereon shall be refunded to the employer by the board.

§ 5407. Eligibility for benefits.

(a) Termination of service.--A participant who terminates State service shall be eligible to withdraw the accumulated total defined contributions standing to his credit in the participant's individual investment account or such lesser amount as the participant may request. Payment shall be made in a lump sum unless the board has established other forms of distribution in the plan document. A participant who withdraws his accumulated total defined contributions shall no longer be a participant in the plan, notwithstanding that the participant may have contracted to receive an annuity or other form of payment from a provider retained by the board for such purposes.

(b) Required distributions.--All payments pursuant to this section shall start and be made in compliance with the minimum distribution requirements and incidental death benefit rules of IRC § 401(a)(9). The board shall take any action and make any distributions it may determine are necessary to comply with such requirements.

(c) Combined service participant.--A participant who is a combined service employee must be terminated from all positions that result in either membership in the system or participation in the plan to be eligible to receive a distribution.

(d) Loans.--Loans or other distributions from the plan to State employees who have not terminated State service are not permitted, except as required by law.

(e) Small individual investment accounts.--A participant who terminates State service and whose accumulated total defined contributions are below the threshold established by law as of the date of termination of service may be paid the accumulated total defined contributions in a lump sum as provided in IRC § 401(a)(31).

§ 5408. Death benefits.

(a) General rule.--In the event of the death of an active participant or inactive participant, the board shall pay to the participant's beneficiary the balance in the participant's individual investment account in a lump sum or in such other manner as the board may establish in the plan document.

(b) Death of participant receiving distributions.--In the event of the death of a participant receiving distributions, the board shall pay to the participant's beneficiary the balance in the participant's individual investment account in a lump sum or in such other manner as the board may establish in the plan document or, if the board has established alternative methods of distribution in the plan document under which the participant was receiving distributions, to the participant's beneficiary or successor payee, as the case may be, as provided in the plan document.

(c) Contracts.--The board may contract with financial institutions, insurance companies or other types of third-party providers to allow participants who receive a lump sum distribution to receive payments and death benefits in a form and manner as provided by the contract.

§ 5409. Vesting.

Subject to the forfeiture and attachment provisions of section 5953 (relating to taxation, attachment and assignment of funds) or otherwise as provided by law, a participant shall be 100% vested with respect to all mandatory pickup participant contributions, voluntary contributions and employer defined contributions paid by or on behalf of the participant to the trust in addition to interest and earnings on the participant and employer contributions but not including investment fees and administrative charges.

§ 5410. Termination of distributions.

(a) Return to State service.--A participant receiving distributions or an inactive participant who returns to State service shall cease receiving distributions and shall not be eligible to receive distributions until the participant subsequently terminates State service, without regard to whether the participant is a mandatory, optional or prohibited member of the system or participant in the plan.

(b) Return of benefits paid during USERRA leave.--If a former State employee is reemployed from USERRA leave and has previously received any payments or annuity from the plan during the USERRA leave, the employee shall return to the board the amount so received plus interest as provided in the plan document. The amount payable shall be certified in each case by the board in accordance with methods approved by the actuary and shall be paid in a lump sum within 30 days, or in the case of an active participant, may be amortized with interest as provided in the plan document through salary deductions to the trust in amounts agreed upon by the participant and the board, but for not longer than a period that starts with the date of reemployment and continues for up to three times the length of the participant's immediate past period of USERRA leave. The repayment period shall not exceed five years.

§ 5411. Agreements with financial institutions and other organizations.

To establish and administer the State Employees' Defined Contribution Plan, the board shall have the power to enter into written agreements with one or more financial institutions or other organizations relating to the plan's administration and investment of funds held pursuant to the plan.

§ 5412. Powers and duties of board.

The board shall have the following powers and duties to establish the plan and trust and administer the provisions of this chapter and part:

(1) The board may commingle or pool assets with the assets of other persons or entities.

(2) The board shall pay all administrative fees, costs and expenses of managing, investing and administering the plan, the trust and the individual investment accounts from

the balance of such individual investment accounts except as may be provided otherwise by law.

(3) The board may establish investment guidelines and limits on the types of investments that participants may make, consistent with the board's fiduciary obligations.

(4) The board shall at all times have the power to change the terms of the plan as may be necessary to maintain the tax-qualified status of the plan.

(5) The board may establish a process for election to participate in the plan by those State employees for whom participation is not mandatory.

(6) The board may perform an annual review of any qualified fund manager for the purpose of assuring that the fund manager continues to meet all standards and criteria established.

(7) The board may allow for eligible rollovers and direct trustee-to-trustee transfers into the trust from qualified plans of other employers, regardless of whether the employers are private employers or public employers.

(8) The board may allow a former participant to maintain his or her individual investment account within the plan.

(9) The board shall administer the program in compliance with the qualifications and other rules of the IRC.

(10) The board may establish procedures to provide for the lawful payment of benefits.

(11) The board shall determine what constitutes a termination of State service.

(12) The board may establish procedures for distributions of small accounts as required or permitted by the IRC.

(13) The board shall have the power to establish procedures in the plan document or to promulgate rules and regulations as it deems necessary for the administration and management of the plan, including, but not limited to, establishing:

(i) Procedures whereby eligible participants may change voluntary contribution amounts or their investment choices on a periodic basis or make other elections regarding their participation in the plan.

(ii) Procedures for deducting mandatory pickup participant contributions and voluntary contributions from a participant's compensation.

(iii) Procedures for rollovers and trustee-to-trustee transfers allowed under the IRC and permitted as part of the plan.

(iv) Standards and criteria for disclosing and providing options to eligible individuals regarding investments of amounts deferred under the plan, provided that one of the available options must serve as the default option for participants who do not make a timely election and that, to the extent commercially available, one option must have an annuity investment feature.

(v) Standards and criteria for disclosing to the participants the anticipated and actual income attributable to amounts invested, property rights and all fees, costs and charges to be made against amounts deferred to cover the fees, costs and expenses of administering and managing the plan or trust.

(vi) Procedures, standards and criteria for the making of distributions from the plan upon termination from employment or death or in other circumstances consistent with the purpose of the plan.

(14) The board may waive any reporting or information requirement contained in this part if the board determines that the information is not needed for the administration of the plan.

(15) The board may contract any services and duties in lieu of staff, except final adjudications or if prohibited by law. Any duties or responsibilities of the board not required by law to be performed by the board can be delegated to a third-party provider subject to appeal to the board.

(16) The board may provide that any duties of the employer or information provided by the participant to the employer can be performed or received directly by the board.

(17) The provisions and restrictions of the act of July 2, 2010 (P.L.266, No.44), known as the Protecting Pennsylvania's Investments Act, shall not apply to the plan or trust or the investments thereof, but the board is authorized to offer to the plan participants investment vehicles that would be permitted under the Protecting Pennsylvania's Investments Act.

§ 5413. Responsibility for investment loss.

The board, the Commonwealth, an employer or other political subdivision shall not be responsible for any investment loss incurred under the plan, or for the failure of any investment to earn any specific or expected return or to earn as much as any other investment opportunity, whether or not such other opportunity was offered to participants in the plan.

§ 5414. Investments based on participants' investment allocation choices.

(a) General rule.--All contributions, interest and investment earnings shall be 100% vested and shall be invested based on the participant's investment allocation choices. All investment allocation choices shall be credited proportionally between participant contributions and employer defined contributions. Each participant shall be credited individually with the amount of contributions, interest and investment earnings.

(b) Investment of contributions made by entities other than the Commonwealth.--Investment of contributions by any corporation, institution, insurance company or custodial bank that the board has approved shall not be unreasonably delayed, and in no case shall the investment of contributions be delayed more than 30 days from the date of payroll deduction or the date voluntary contributions are made to the date that funds are invested. Any interest earned on the funds pending investment shall be allocated to the Commonwealth and credited to the individual investment accounts of participants who are then participating in the plan unless the interest is used to defray administrative costs and fees that would otherwise be required to be borne by participants who are then participating in the plan.

§ 5415. Expenses.

All fees, costs and expenses of administering the plan and the trust and investing the assets of the trust shall be borne by the participants and paid from assessments against the balances of the individual investment accounts as established by the board, except as may be provided otherwise by law.

§ 5416. Election by members to be participants.

(a) General rule.--Any State employee who is an active member or inactive member on leave without pay of the system on or after January 1, 2015, and who is employed in a position which would otherwise be eligible for participation in the plan may elect to become a participant in the plan.

(b) Time for making the election.--An eligible State employee may elect to become a participant and a combined service employee at any time before termination of State service by filing a written election with the board.

(c) Effect of election.--An election to become a participant shall be irrevocable. Participation shall be effective at the beginning of the next pay period starting after the election is filed with the board. A member who elects to become a participant shall remain a participant for all future State service. Any prior State or nonstate service credited in the system shall remain in the class of service in which it is credited on the effective date of participation. A combined service employee shall not be eligible to receive an annuity from the system or a withdrawal of accumulated deductions until the employee has terminated State service. A participant shall not be entitled to purchase any previous State service or creditable nonstate service. The eligibility of a combined service employee for an annuity from the system and, if eligible, the amount of such annuity shall be as determined under this part.

§ 5417. Required distributions.

All payments pursuant to this chapter shall start and be made in compliance with the minimum distribution requirements and incidental death benefit rules of IRC § 401(a).

Section 13. Section 5501.1(b)(7) and (8) of Title 71 are amended and the subsection is amended by adding a paragraph to read:

§ 5501.1. Shared-risk member contributions for Class A-3 and Class A-4 service.

* * *

(b) Determination of shared-risk contribution rate.--

* * *

(7) For any fiscal year in which the actual contributions by the Commonwealth or an employer are lower than those required to be made under section 5507(d) [(relating to contributions by the Commonwealth and other employers)] (relating to contributions to the system by the Commonwealth and other employers before July 1, 2015) or 5507.1 (relating to contributions to the system by the Commonwealth and other employers starting July 1, 2015), the prospective shared-risk contribution rate for those employees whose employers are not making the contributions required by section 5507(d) shall be zero and shall not subsequently be increased, except as otherwise provided in this section.

(8) If the actuary certifies that the accrued liability contributions calculated in accordance with the actuarial cost method provided in [section 5508(b)] section 5508 (relating to actuarial cost method for fiscal years ending before July 1, 2015) or 5508.1 (relating to actuarial cost method for fiscal years beginning July 1, 2015, or later), as adjusted by the experience adjustment factor, are zero or less, then the shared-risk contribution rate for the next fiscal year shall be zero and shall not subsequently be increased, except as otherwise provided in this section.

(9) For periods commencing on or after July 1, 2015, the determination of shared-risk member contribution rate shall

be based on the annual interest rate adopted by the board for the calculation of the accrued liability contribution rate under section 5508.1(c).

Section 14. The definition of "actuarially required contribution rate" in section 5501.2 of Title 71 is amended to read:

§ 5501.2. Definitions.

The following words and phrases when used in this chapter shall have the meanings given to them in this section unless the context clearly indicates otherwise:

"Actuarially required contribution rate." The employer contribution rate as calculated pursuant to section 5508(a), (b), (c), (e) and (f) (relating to actuarial cost method for fiscal years ending before July 1, 2015) or 5508.1(a), (b), (c), (e) and (f) (relating to actuarial cost method for fiscal years beginning July 1, 2015, or later).

* * *

Section 15. Sections 5502, 5503.1(a) and 5504(a)(1), (a.1) and (b) of Title 71 are amended to read:

§ 5502. Social Security integration member contributions.

Except for any period of current service in which the making of regular member contributions has ceased solely by reason of section 5502.1 (relating to waiver of regular member contributions and Social Security integration member contributions) or any provision of this part relating to limitations under IRC § 401(a)(17) or 415(b), contributions shall be made on behalf of [a] an active member of any class who prior to March 1, 1974, has elected Social Security integration coverage. The amount of such contributions shall be 6 1/4% of that portion of his compensation as an active member in excess of the maximum wages taxable under the provisions of the Social Security Act (49 Stat. 620, 42 U.S.C. § 301 et seq.), in addition to the regular member contributions which, after such election, shall be determined on the basis of the basic contribution rate of 5% and the additional member contribution of 1 1/4%: Provided, That a member may elect to discontinue Social Security integration coverage and shall thereafter be ineligible to accrue any further Social Security integration credits or any additional benefits on account of Social Security integration membership.

§ 5503.1. Pickup contributions.

(a) Treatment for purposes of IRC § 414(h).--All contributions to the fund required to be made under sections 5501 (relating to regular member contributions for current service), 5501.1 (relating to shared-risk member contributions for Class A-3 and Class A-4 service), 5502 (relating to Social Security integration member contributions), 5503 (relating to joint coverage member contributions) and [section] 5505.1 (relating to additional member contributions), with respect to current State service rendered by an active member on or after January 1, 1982, shall be picked up by the Commonwealth or other employer and shall be treated as the employer's contribution for purposes of IRC § 414(h).

* * *

§ 5504. Member contributions for the purchase of credit for previous State service or to become a full coverage member.

(a) Amount of contributions for service in other than Class G through N.--

(1) The contributions to be paid by an active member or

eligible school employee for credit <u>in the system</u> for total previous State service other than service in Class G, Class H, Class I, Class J, Class K, Class L, Class M and Class N or to become a full coverage member shall be sufficient to provide an amount equal to the regular and additional accumulated deductions which would have been standing to the credit of the member for such service had regular and additional member contributions been made with full coverage in the class of service and at the rate of contribution applicable during such period of previous service and had his regular and additional accumulated deductions been credited with statutory interest during all periods of subsequent State <u>service as an active member or inactive member on leave without pay</u> and school service <u>as an active member or inactive member on leave without pay of the Public School Employees' Retirement System</u> up to the date of purchase.

* * *

(a.1) Converted county service.--No contributions shall be required to restore credit for previously credited State service in Class G, Class H, Class I, Class J, Class K, Class L, Class M and Class N. Such service shall be restored upon the commencement of payment of the contributions required to restore credit <u>in the system</u> for all other previous State service.

(b) Certification and method of payment.--The amount payable shall be certified in each case by the board in accordance with methods approved by the actuary and shall be paid in a lump sum within 30 days or in the case of an active member or eligible school employee who is an active member of the Public School Employees' Retirement System may be amortized with statutory interest through salary deductions <u>to the system</u> in amounts agreed upon by the member and the board. The salary deduction amortization plans agreed to by members and the board may include a deferral of payment amounts and statutory interest until the termination of school service or State service <u>or beginning service as a participant</u> as the board in its sole discretion decides to allow. The board may limit the salary deduction amortization plans to such terms as the board in its sole discretion determines. In the case of an eligible school employee who is an active member of the Public School Employees' Retirement System, the agreed upon salary deductions shall be remitted to the Public School Employees' Retirement Board, which shall certify and transfer to the board the amounts paid.

Section 16. Section 5505(b)(1), (c), (d) and (i)(4) of Title 71, amended October 24, 2012 (P.L.1436, No.181), are amended to read:

§ 5505. Contributions for the purchase of credit for creditable nonstate service.

* * *

(b) Nonintervening military service.--

(1) The amount due for the purchase of credit for military service other than intervening military service shall be determined by applying the member's basic contribution rate, the additional contribution rate plus the Commonwealth normal contribution rate for active members at the time of entry, subsequent to such military service, of the member into State service to his average annual rate of compensation over the first three years of such subsequent State service and multiplying the result by the number of years and fractional part of a year of creditable nonintervening military service being purchased together with

statutory interest during all periods of subsequent State service as an active member or inactive member on leave without pay and school service as an active member or inactive member on leave without pay of the Public School Employees' Retirement System to date of purchase. Upon application for credit for such service, payment shall be made in a lump sum within 30 days or in the case of an active member or eligible school employee who is an active member of the Public School Employees' Retirement System it may be amortized with statutory interest through salary deductions to the system in amounts agreed upon by the member and the board. The salary deduction amortization plans agreed to by members and the board may include a deferral of payment amounts and statutory interest until the termination of school service or State service or beginning service as a participant as the board in its sole discretion decides to allow. The board may limit salary deduction amortization plans to such terms as the board in its sole discretion determines. In the case of an eligible school employee who is an active member of the Public School Employees' Retirement System, the agreed upon salary deductions shall be remitted to the Public School Employees' Retirement Board, which shall certify and transfer to the board the amounts paid. Application may be filed for all such military service credit upon completion of three years of subsequent State service and shall be credited as Class A service.

* * *

(c) Intervening military service.--Contributions on account of credit for intervening military service shall be determined by the member's regular contribution rate, shared-risk contribution rate, Social Security integration contribution rate, the additional contribution rate which shall be applied only to those members who began service on or after the effective date of this amendatory act and compensation at the time of entry of the member into active military service, together with statutory interest during all periods of subsequent State <u>service as an active member or inactive member on leave without pay</u> and school service <u>as an active member or inactive member on leave without pay of the Public School Employees' Retirement System</u> to date of purchase. Upon application for such credit the amount due shall be certified in the case of each member by the board in accordance with methods approved by the actuary, and contributions may be made by:

(1) regular monthly payments during active military service; or

(2) a lump sum payment within 30 days of certification; or

(3) salary deductions <u>to the system</u> in amounts agreed upon by the member or eligible school employee who is an active member of the Public School Employees' Retirement System and the board.

The salary deduction amortization plans agreed to by members and the board may include a deferral of payment amounts and statutory interest until the termination of school service or State service <u>or beginning service as a participant</u> as the board in its sole discretion decides to allow. The board may limit salary deduction amortization plans to such terms as the board in its sole discretion determines. In the case of an eligible school employee who is an active member of the Public School Employees' Retirement System, the agreed upon salary deductions shall be remitted to the Public School Employees' Retirement Board, which shall certify and transfer to the board the amounts paid.

(d) Nonmilitary and nonmagisterial service.--Contributions on account of credit for creditable nonstate service other than military and magisterial service by State employees who first become members of the system before January 1, 2011, or before December 1, 2010, as a member of the General Assembly shall be determined by applying the member's basic contribution rate, the additional contribution rate plus the Commonwealth normal contribution rate for active members at the time of entry subsequent to such creditable nonstate service of the member into State service to his compensation at the time of entry into State service <u>as a member of the system</u> and multiplying the result by the number of years and fractional part of a year of creditable nonstate service being purchased together with statutory interest during all periods of subsequent State <u>service as an active member or inactive member on leave without pay</u> and school service <u>as an active member or inactive member on leave without pay of the Public School Employees' Retirement System</u> to the date of purchase. Upon application for credit for such service payment shall be made in a lump sum within 30 days or in the case of an active member or eligible school employee who is an active member of the Public School Employees' Retirement System it may be amortized with statutory interest through salary deductions <u>to the system</u> in amounts agreed upon by the member and the board. The salary deduction amortization plans agreed to by members and the board may include a deferral of payment amounts and statutory interest until the termination of school service or State service <u>or beginning service as a</u>

participant as the board in its sole discretion decides to allow. The board may limit salary deduction amortization plans to such terms as the board in its sole discretion determines. In the case of an eligible school employee who is an active member of the Public School Employees' Retirement System, the agreed upon salary deduction shall be remitted to the Public School Employees' Retirement Board, which shall certify and transfer to the board the amounts paid.

* * *

(i) Purchases of nonstate service credit by State employees who first became members of the system on or after December 1, 2010.--

* * *

(4) The payment for credit purchased under this subsection shall be certified in each case by the board in accordance with methods approved by the actuary and shall be paid in a lump sum within 30 days or in the case of an active member or eligible school employee who is an active member of the Public School Employees' Retirement System may be amortized with statutory interest through salary deductions to the system in amounts agreed upon by the member and the board. The salary deduction amortization plans agreed to by members and the board may include a deferral of payment amounts and interest until the termination of school service or State service or beginning service as a participant as the board in its sole discretion decides to allow. The board may limit the salary deduction amortization plans to such terms as the board in its sole discretion determines. In the case of an eligible school employee who is an active member of the Public School Employees' Retirement System, the agreed upon

salary deductions shall be remitted to the Public School Employees' Retirement Board, which shall certify and transfer to the board the amounts paid.

Section 17. Section 5505.1 of Title 71 is amended to read:

§ 5505.1. Additional member contributions.

In addition to regular or joint coverage member contributions and social security integration contributions, contributions shall be made on behalf of each active member, regardless of class of service, at the rate of 1 1/4% of compensation until such time as the actuary certifies that all accrued liability contributions have been completed in accordance with the actuarial cost method provided in section 5508(b) (relating to actuarial cost method for fiscal years ending before July 1, 2015).

Section 18. Section 5506 of Title 71, amended October 24, 2012 (P.L.1436, No.181), is amended to read:

§ 5506. Incomplete payments.

In the event that a member terminates State service or becomes a participant or a multiple service member who is an active member of the Public School Employees' Retirement System terminates school service before the agreed upon payments for credit for previous State service, USERRA leave, creditable nonstate service, social security integration, full coverage membership or return of benefits on account of returning to State service or entering school service and electing multiple service have been completed, the member or multiple service member who is an active member of the Public School Employees' Retirement System shall have the right to pay within 30 days of termination of State service or school service or becoming a participant the balance due, including interest, in a lump sum and the annuity shall be calculated including full credit for the previous State service, creditable nonstate service, social security integration, or full coverage membership. In the event a member does not pay the balance due within 30 days of termination of State service <u>or becoming a participant</u> or in the event a member dies in State service or within 30 days of termination of State service <u>or becoming a participant</u> or in the case of a multiple service member who is an active member of the Public School Employees' Retirement System does not pay the balance due within 30 days of termination of school service or dies in school service or within 30 days of termination of school service and before the agreed upon payments have been completed, the present value of the benefit otherwise payable shall be reduced by the balance due, including interest, and the benefit payable shall be calculated as the actuarial equivalent of such reduced present value.

Section 19. Section 5506.1(a) of Title 71 is amended to read:

§ 5506.1. Annual compensation limit under IRC § 401(a)(17).

(a) General rule.--In addition to other applicable limitations set forth in this part, and notwithstanding any provision of this part to the contrary, the annual compensation of each noneligible member <u>and each participant</u> taken into account for benefit purposes under this part shall not exceed the limitation under IRC § 401(a)(17). On and after January 1, 1996, any reference in this part to the limitation under IRC § 401(a)(17) shall mean the Omnibus Budget Reconciliation Act of 1993 (OBRA '93) (Public Law 103-66, 107 Stat. 312) annual compensation limit set forth in this subsection. The OBRA '93 annual compensation limit is $150,000, as adjusted by the commissioner for increases in the cost of living in accordance with IRC § 401(a)(17)(B). The cost-of-living adjustment in effect for a calendar year applies to any determination period which is a period, not exceeding 12 months, over which compensation is determined, beginning in such calendar year. If a determination period consists of fewer than 12 months, the OBRA '93 compensation limit will be multiplied by a fraction, the numerator of which is the number of months in the determination period and the denominator of which is 12.

* * *

Section 20. Section 5507(a), (b), (d), (e) and (f) of Title 71, amended October 24, 2012 (P.L.1436, No.181), are amended to read:

§ 5507. Contributions <u>to the system</u> by the Commonwealth and other employers <u>before July 1, 2015</u>.

(a) Contributions on behalf of active members.--[The] <u>Until June 30, 2015, the</u> Commonwealth and other employers whose employees are members of the system<u>, and from January 1, 2015, to June 30, 2015, the Commonwealth and other employers whose employees are participants in the plan,</u> shall make contributions to the fund on behalf of all active members in such amounts as shall be certified by the board as necessary to provide, together with the members' total accumulated deductions, annuity reserves on account of prospective annuities other than those provided in sections 5708 (relating to supplemental annuities), 5708.1 (relating to additional supplemental annuities), 5708.2 (relating to further additional supplemental annuities), 5708.3 (relating to supplemental annuities commencing 1994), 5708.4 (relating to special supplemental postretirement adjustment), 5708.5 (relating to supplemental annuities commencing 1998), 5708.6 (relating to supplemental annuities commencing 2002), 5708.7 (relating to supplemental annuities commencing 2003) and 5708.8 (relating to special supplemental postretirement adjustment of 2002), in accordance with the actuarial cost method provided in section 5508(a), (b), (c), (d) and (f) (relating to actuarial cost method for fiscal years ending before July 1, 2015).

(b) Contributions on behalf of annuitants.--[The] Until June 30, 2015, the Commonwealth and other employers whose employees are members of the system shall make contributions on behalf of annuitants in such amounts as shall be certified by the board as necessary to fund the liabilities for supplemental annuities in accordance with the actuarial cost method provided in section 5508(e) [(relating to actuarial cost method)].

* * *

(d) Payment of final contribution rate.--Notwithstanding the calculation of the actuarially required contribution rate and the provisions of subsections (a) and (b), until June 30, 2015, the Commonwealth and other employers whose employees are members of the system shall make contributions to the fund on behalf of all active members and annuitants in such amounts as shall be certified by the board in accordance with section 5508(i).

(e) Benefits completion plan contributions.--In addition to all other contributions required under this section and section 5508, until June 30, 2015, the Commonwealth and other employers whose employees are members of the system shall make contributions as certified by the board pursuant to section 5941 (relating to benefits completion plan).

(f) Contributions resulting from members reemployed from USERRA leave.--When a State employee reemployed from USERRA leave makes the member contributions required to be granted State service credit for the USERRA leave before July 1, 2015, either by actual payment or by actuarial debt under section 5506 (relating to incomplete payments), then the Commonwealth employer or other employer by whom the State employee is employed at the time the member contributions are made, or the last employer before termination in the case of payment under section 5506, shall make whatever employer contributions would have been made under this section had the employee making the member contributions after being reemployed from USERRA leave continued to be employed in his State office or position instead of performing USERRA leave.

Section 21. Title 71 is amended by adding a section to read:

§ 5507.1. Contributions to the system by the Commonwealth and other employers starting July 1, 2015.

(a) Contributions on behalf of members.--For fiscal years beginning on or after July 1, 2015, the Commonwealth and other employers whose employees are or were members of the system shall make contributions to the fund on behalf of all members in such amounts as shall be certified by the board as necessary to provide, together with the members' total accumulated deductions, annuity reserves on account of annuities including those provided in sections 5708 (relating to supplemental annuities), 5708.1 (relating to additional supplemental annuities), 5708.2 (relating to further additional supplemental annuities), 5708.3 (relating to supplemental annuities commencing 1994), 5708.4 (relating to special supplemental postretirement adjustment), 5708.5 (relating to supplemental annuities commencing 1998), 5708.6 (relating to supplemental annuities commencing 2002), 5708.7 (relating to supplemental annuities commencing 2003) and 5708.8 (relating to special supplemental postretirement adjustment of 2002), in accordance with the actuarial cost method provided in section 5508.1 (relating to actuarial cost method for fiscal years beginning July 1, 2015, or later).

(b) Payment of employer contributions to the system.--

(1) Payment of employer normal contributions shall be as a percentage of compensation of active members.

(2) Payment of accrued liability contributions as modified by the experience adjustment factor shall be as a percentage of compensation of active members and active participants.

(3) Payment of the additional accrued liability contributions determined under section 5508.1(d) shall be in equal monthly payments during the fiscal year on the first day of each month, or in such other time and manner as the board may establish.

(c) Payment of final contribution rate.--Notwithstanding the calculation of the actuarially required contribution rate and the provisions of subsections (a) and (b)(1) and (2), after June 30, 2015, the Commonwealth and other employers whose employees are members of the system shall make contributions to the fund on behalf of all active members and annuitants in such amounts as shall be certified by the board in accordance with section 5508.1(h).

(d) Benefits completion plan contributions.--In addition to all other contributions required under this section and section 5508.1, after June 30, 2015, the Commonwealth and other employers whose employees are active members of the system shall make contributions as certified by the board pursuant to section

5941 (relating to benefits completion plan).

(e) Contributions resulting from members reemployed from USERRA leave.--When a State employee reemployed from USERRA leave makes the member contributions required to be granted State service credit for the USERRA leave after June 30, 2015, either by actual payment or by actuarial debt under section 5506 (relating to incomplete payments), the Commonwealth employer or other employer that employed the State employee when the member contributions are made or the last employer before termination in the case of payment under section 5506 shall make the employer contributions that would have been made under this section if the employee making the member contributions after the employee is reemployed from USERRA leave continued to be employed in the employee's State office or position instead of performing USERRA leave.

Section 22. Section 5508 heading, (a), (b), (c)(3), (e)(2), (f)(1), (h) and (i) of Title 71 are amended and subsection (c) is amended by adding a paragraph to read:

§ 5508. Actuarial cost method for fiscal years ending before July 1, 2015.

(a) Employer contribution rate on behalf of active members.--[The] For the fiscal years ending before July 1, 2015, the amount of the Commonwealth and other employer contributions on behalf of all active members shall be computed by the actuary as a percentage of the total compensation of all active members during the period for which the amount is determined and shall be so certified by the board. The actuarially required contribution rate on behalf of all active members shall consist of the employer normal contribution rate, as defined in subsection (b), and the accrued liability contribution rate as defined in subsection (c). The actuarially required contribution rate on behalf of all active members shall be modified by the experience adjustment factor as calculated in subsection (f).

(b) Employer normal contribution rate.--[The] For the fiscal years ending before July 1, 2015, the employer normal contribution rate shall be determined after each actuarial valuation on the basis of an annual interest rate and such mortality and other tables as shall be adopted by the board in accordance with generally accepted actuarial principles. The employer normal contribution rate shall be determined as a level percentage of the compensation of the average new active member, which percentage, if contributed on the basis of his prospective compensation through his entire period of active State service, would be sufficient to fund the liability for any prospective benefit payable to him in excess of that portion funded by his prospective member contributions, excluding shared-risk member contributions.

(c) Accrued liability contribution rate.--

* * *

(3) For the fiscal year beginning July 1, 2010, the accrued liability contribution rate shall be computed as the rate of total compensation of all active members which shall be certified by the actuary as sufficient to fund in equal dollar installments over a period of 30 years from July 1, 2010, the present value of the liabilities for all prospective benefits calculated as of the immediately prior valuation date, including the supplemental benefits as provided in sections 5708, 5708.1, 5708.2, 5708.3, 5708.4, 5708.5, 5708.6, 5708.7 and 5708.8, but excluding the benefits payable from the retirement benefit plan established pursuant

to section 5941 (relating to benefits completion plan), in excess of the actuarially calculated assets in the fund (calculated recognizing all realized and unrealized investment gains and losses each year in level annual installments over five years), including the balance in the supplemental annuity account, and the present value of employer normal contributions and of member contributions payable with respect to all active members, inactive members on leave without pay, vestees and special vestees on December 31, 2009. If the accrued liability is changed by legislation enacted subsequent to December 31, 2009, and before January 1, 2014, such change in liability shall be funded in equal dollar installments over a period of ten years from the first day of July following the valuation date coincident with or next following the date such legislation is enacted.

(4) For the fiscal year beginning July 1, 2014, the accrued liability contribution rate shall be computed as provided for under this section, except that the rate shall be computed as a rate of total compensation of all active members and active participants for the fiscal year. In addition to any employer defined contributions made to the trust, the Commonwealth and other employers of participants shall make the accrued liability contributions to the fund certified by the board.

* * *

(e) Supplemental annuity contribution rate.--

* * *

(2) For fiscal years beginning on or after July 1, 2010, and ending on or before June 30, 2015, contributions from the Commonwealth and other employers whose employees are members

of the system required to provide for the payment of supplemental annuities as provided in sections 5708, 5708.1, 5708.2, 5708.3, 5708.4, 5708.5, 5708.6, 5708.7 and 5708.8 shall be paid as part of the accrued liability contribution rate as provided for in subsection (c)(3), and there shall not be a separate supplemental annuity contribution rate attributable to those supplemental annuities. In the event that supplemental annuities are increased by legislation enacted subsequent to December 31, 2009<u>, and before January 1, 2014</u>, the additional liability for the increase in benefits shall be funded in equal dollar installments over a period of ten years from the first day of July following the valuation date coincident with or next following the date such legislation is enacted.

(f) Experience adjustment factor.--

(1) For each [year] <u>fiscal year ending before July 1, 2015,</u> after the establishment of the accrued liability contribution rate and the supplemental annuity contribution rate for the fiscal year beginning July 1, 2010, any increase or decrease in the unfunded accrued liability and any increase or decrease in the liabilities and funding for supplemental annuities, due to actual experience differing from assumed experience (recognizing all realized and unrealized investment gains and losses over a five-year period), changes in contributions caused by the final contribution rate being different from the actuarially required contribution rate, State employees making shared-risk member contributions, changes in actuarial assumptions or changes in the terms and conditions of the benefits provided by the system by judicial, administrative or other

processes other than legislation, including, but not limited to, reinterpretation of the provisions of this part recognized by the actuarial valuations on December 31, 2010, and through December 31, 2013, shall be amortized in equal dollar annual contributions over a period of 30 years beginning with the July 1 succeeding the actuarial valuation determining said increases or decreases.

* * *

(h) Temporary application of collared contribution rate.--The collared contribution rate for each [year] fiscal year ending on or before June 30, 2015, shall be determined by comparing the actuarially required contribution rate calculated without regard for costs added by legislation to the prior year's final contribution rate. If, for any of the fiscal years beginning July 1, 2011, July 1, 2012, [and on or after] July 1, 2013, and July 1, 2014, the actuarially required contribution rate calculated without regard for costs added by legislation is more than 3%, 3.5%, 4.5% and 4.5%, respectively, of the total compensation of all active members greater than the prior year's final contribution rate, then the collared contribution rate shall be applied and be equal to the prior year's final contribution rate increased by the respective percentage above of total compensation of all active members. Otherwise, and for all subsequent fiscal years, the collared contribution rate shall not be applicable. In no case shall the collared contribution rate be less than 4% of total compensation of all active members.

(i) Final contribution rate.--For the fiscal year beginning July 1, 2010, the final contribution rate shall be 5% of total compensation of all active members. For each subsequent fiscal year for which the collared contribution rate is applicable, the final contribution rate shall be the collared contribution rate plus the costs added by legislation. For all other fiscal years ending before July 1, 2015, the final contribution rate shall be the actuarially required contribution rate, provided that the final contribution rate shall not be less than the employer normal contribution rate, as defined in subsection (b).

Section 23. Title 71 is amended by adding a section to read:

§ 5508.1. Actuarial cost method for fiscal years beginning July 1, 2015, or later.

(a) Employer contributions on behalf of members.--For fiscal years beginning on or after July 1, 2015, the amount of the Commonwealth and other employer contributions on behalf of all members shall be computed by the actuary and certified by the board as an employer normal contribution rate as defined in subsection (b) and the accrued liability contribution amount as defined in subsection (c). The accrued liability contribution amount shall be modified by the experience adjustment factor as calculated in subsection (f).

(b) Employer normal contribution rate.--For fiscal years beginning on or after July 1, 2015, the employer normal contribution rate for all active members of the system shall be the employer normal contribution rate that would have been applicable if the employer normal contribution rate was determined as part of the December 31, 2014, actuarial valuation under section 5508(b) (relating to actuarial cost method for fiscal years ending before July 1, 2015) without regard to the provisions of this section and the inapplicability of that rate to periods on or after July 1, 2015.

(c) Accrued liability contribution amount.--

(1) For fiscal years beginning July 1, 2015, the accrued liability contribution rate shall be computed as the rate of total compensation of all active members and active participants which shall be determined by the actuary as sufficient to fund in equal dollar installments over a period of 30 years from July 1, 2015, the present value of all the liabilities for all prospective benefits of members of the system calculated as of the immediately prior valuation date, including the supplemental benefits as provided in sections 5708 (relating to supplemental annuities), 5708.1 (relating to additional supplemental annuities), 5708.2 (relating to further additional supplemental annuities), 5708.3 (relating to supplemental annuities commencing 1994), 5708.4 (relating to special supplemental postretirement adjustment), 5708.5 (relating to supplemental annuities commencing 1998), 5708.6 (relating to supplemental annuities commencing 2002), 5708.7 (relating to supplemental annuities commencing 2003) and 5708.8 (relating to special supplemental postretirement adjustment of 2002), but excluding the benefits payable from the retirement benefit plan established pursuant to section 5941 (relating to benefits completion plan), in excess of the actuarially calculated assets in the fund, calculated recognizing all realized and unrealized investment gains and losses each year in level annual installments over five years, including the balance in the supplemental annuity account, and the present value of employer normal contributions and of member contributions payable with respect to all active members, inactive members on leave without pay, vestees and special vestees on December 31, 2014. If the accrued liability is changed by legislation

enacted subsequent to December 31, 2014, such change in liability shall be funded in equal dollar installments as a percentage of compensation of all active members and active participants over a period of ten years from the first day of July following the valuation date coincident with or next following the date such legislation is enacted. The accrued liability contribution rate shall be determined after each actuarial valuation on the basis of an annual interest rate and such mortality and other tables as shall be adopted by the board in accordance with generally accepted actuarial principles.

(2) For purposes of determining the accrued liability contribution rate in paragraph (1) and subsection (e) and the experience adjustment factor in subsection (f), the term "compensation of all active members and active participants" shall include an additional amount equal to the difference between:

(i) The actual compensation of all active members and active participants of The Pennsylvania State University, the State System of Higher Education, State-owned educational institutions and community colleges.

(ii) The compensation of all employees of The Pennsylvania State University, the State System of Higher Education, State-owned educational institutions and community colleges who are active members, active participants, active members of the Public School Employees' Retirement System, active participants of the School Employees' Defined Contribution Plan and employees who are members or participants of an independent retirement program approved by the employer multiplied by a fraction equal to the amount determined under subparagraph (i) as part of the December 31, 2014, actuarial valuation divided by the amount determined under this subparagraph as of December 31, 2014.

(d) Allocation of accrued liability contribution amount.--For the fiscal year beginning July 1, 2015, and all subsequent fiscal years, The Pennsylvania State University, the State System of Higher Education, each State-owned educational institution and each community college shall make such additional actuarial accrued liability contributions as shall be certified by the board. The additional actuarial accrued liability contributions shall be the product of:

(1) the amount by which the final contribution rate exceeds the employer normal contribution rate determined under subsection (b)(1); multiplied by

(2) the difference between:

(i) the actual compensation of all active members and active participants of each such educational institution; and

(ii) the compensation of all active members, active participants, active members of the Public School Employees' Retirement System, active participants of the School Employees' Defined Contribution Plan and employees who are members or participants of an independent retirement program approved by the employer of each such educational institution multiplied by a fraction equal to the amount determined under subparagraph (i) as part of the December 31, 2014, actuarial valuation divided by the amount of compensation of all active members, active participants, active members of the Public School

Employees' Retirement System, active participants of the School Employees' Defined Contribution Plan and employees who are members or participants of an independent retirement program approved by the employer of each such educational institution determined as of December 31, 2014.

(e) Supplemental annuity contribution amounts.--For fiscal years beginning on or after July 1, 2015, contributions from the Commonwealth and other employers whose employees are members of the system required to provide for the payment of supplemental annuities as provided in sections 5708, 5708.1, 5708.2, 5708.3, 5708.4, 5708.5, 5708.6, 5708.7 and 5708.8 shall be paid as part of the accrued liability contribution rate as provided for in subsection (c) and there shall not be a separate supplemental annuity contribution amount attributable to those supplemental annuities. In the event that supplemental annuities are increased by legislation enacted subsequent to December 31, 2014, the additional liability for the increase in benefits shall be funded in equal dollar installments as a percentage of compensation of all active members and active participants over a period of ten years from the first day of July following the valuation date coincident with or next following the date such legislation is enacted as part of the accrued liability amount and not as a separate supplemental annuity contribution amount.

(f) Experience adjustment factor.--

(1) For each year after the establishment of the accrued liability contribution amount for the fiscal year beginning July 1, 2015, any increase or decrease in the unfunded accrued liability and any increase or decrease in the liabilities and funding for supplemental annuities, due to

actual experience differing from assumed experience, recognizing all realized and unrealized investment gains and losses over a five-year period, changes in contributions caused by the final contribution rate being different from the actuarially required contribution rate, State employees making shared-risk member contributions, changes in actuarial assumptions or changes in the terms and conditions of the benefits provided by the system by judicial, administrative or other processes other than legislation, including, but not limited to, reinterpretation of the provisions of this part, shall be amortized in equal dollar installments expressed as a level percentage of compensation of all active members and active participants over a period of 30 years beginning with the July 1 succeeding the actuarial valuation determining said increases or decreases.

(2) The actuarially required contribution rate shall be the sum of the normal contribution rate determined under subsection (b)(2), the accrued liability contribution rate and the supplemental annuity contribution rate modified by the experience adjustment factor as calculated in paragraph (1).

(g) Temporary application of collared contribution rate.--The collared contribution rate for each fiscal year beginning on or after July 1, 2015, shall be determined by comparing the actuarially required contribution rate calculated without regard for costs added by legislation to the prior year's final contribution rate. If the actuarially required contribution rate calculated without regard for costs added by legislation is more than 4.5% of the total compensation of all active members greater than the prior year's final contribution rate, then the collared contribution rate shall be applied and be equal to the prior year's final contribution rate increased by 4.5% of total compensation of all active members. Otherwise, and for all subsequent fiscal years, the collared contribution rate shall not be applicable. In no case shall the collared contribution rate be less than 4% of total compensation of all active members.

(h) Final contribution rate.--For the fiscal year beginning July 1, 2015, if the collared contribution rate is applicable, the final contribution rate shall be the collared contribution rate plus the costs added by legislation. For each subsequent fiscal year for which the collared contribution rate is applicable, the final contribution rate shall be the collared contribution rate plus the costs added by legislation. For all other fiscal years beginning on or after July 1, 2015, the final contribution rate shall be the actuarially required contribution rate, provided that the final contribution rate shall not be less than the employer normal contribution rate, as provided under subsection (b).

Section 24. Section 5509 of Title 71, amended October 24, 2012 (P.L.1436, No.181), is amended to read:

§ 5509. Appropriations and assessments by the Commonwealth.

(a) Annual submission of budget.--The board shall prepare and submit annually an itemized budget consisting of the amounts necessary to be appropriated by the Commonwealth out of the General Fund and special operating funds and the amounts to be assessed the other employers required to meet the separate obligations to both the fund and the trust accruing during the fiscal period beginning the first day of July of the following year.

(b) Appropriation and payment.--The General Assembly shall make an appropriation sufficient to provide for the separate obligations of the Commonwealth to both the fund and the trust. Such amount shall be paid by the State Treasurer through the Department of Revenue into the fund or the trust, as the case may be, in accordance with requisitions presented by the board. The contributions to the system by the Commonwealth on behalf of active members who are officers of the Pennsylvania State Police shall be charged to the General Fund and to the Motor License Fund in the same ratios as used to apportion the appropriations for salaries of members of the Pennsylvania State Police. The contributions to the system by the Commonwealth on behalf of active members who are enforcement officers and investigators of the Pennsylvania Liquor Control Board shall be charged to the General Fund and to the State Stores Fund.

(c) Contributions from funds other than General Fund.--The amounts assessed other employers who are required to make the necessary separate contributions to both the fund and the trust out of funds other than the General Fund shall be paid by such employers into the fund or the trust, as the case may be, in accordance with requisitions presented by the board. The General Fund of the Commonwealth shall not be held liable to appropriate the moneys required to build up the reserves in the fund necessary for the payment of benefits from the system to employees or to make the employer defined contributions for employees of such other employers. In case any such other employer shall fail to provide to the fund the moneys necessary for such purpose, then the service of such members of the system for such period for which money is not so provided shall be credited and pickup contributions with respect to such members shall continue to be credited to the members' savings account. The annuity to which such member is entitled shall be determined as actuarially equivalent to the present value of the maximum single life annuity of each such member reduced by the amount of employer contributions <u>to the system</u> payable on account and attributable to his compensation during such service, except that no reduction shall be made as a result of the failure of an employer to make contributions required for a period of USERRA leave.

Section 25. Sections 5701 and 5701.1 of Title 71 are amended to read:

§ 5701. Return of total accumulated deductions.

Any member upon termination of service may, in lieu of all benefits payable <u>from the system</u> under this chapter to which he may be entitled, elect to receive his total accumulated deductions.

§ 5701.1. Transfer of accumulated deductions.

When an employee of the Juvenile Court Judges' Commission elects membership in an independent retirement program pursuant to section 5301(f) (relating to mandatory and optional membership <u>in the system and participation in the plan</u>), the board shall transfer directly to the trustee or administrator of the independent retirement program all accumulated deductions resulting from service credited while an employee of the Juvenile Court Judges' Commission.

Section 26. Sections 5702(a)(1) and 5704(c) of Title 71 are amended and the sections are amended by adding subsections to read:

§ 5702. Maximum single life annuity.

(a) General rule.--Any full coverage member who is eligible to receive an annuity pursuant to the provisions of section 5308(a) or (b) (relating to eligibility for annuities) who terminates State service, or if a multiple service member who is a school employee who is an active member of the Public School Employees' Retirement System who terminates school service, before attaining age 70 shall be entitled to receive a maximum single life annuity attributable to his credited service and equal to the sum of the following single life annuities beginning at the effective date of retirement:

(1) A standard single life annuity multiplied by the sum of the products, determined separately for each class of service, obtained by multiplying the appropriate class of service multiplier by the ratio of years of service credited in that class to the total credited service. In case the member on the effective date of retirement is under superannuation age for any service, a reduction factor calculated to provide benefits actuarially equivalent to an annuity starting at superannuation age shall be applied to the product determined for that service. The class of service multiplier for any period of concurrent service shall be multiplied by the proportion of total State and school compensation during such period attributable to State service <u>as a member of the system</u>. In the event a member has two multipliers for one class of service the class of service multiplier to be used for calculating benefits for that class shall be the average of the two multipliers weighted by the proportion of compensation attributable to each multiplier during the three years of highest annual compensation in that class of service: Provided, That in the case of a member of Class E-1, a portion but not all of whose three years of

highest annual judicial compensation is prior to January 1, 1973, two class of service multipliers shall be calculated on the basis of his entire judicial service, the one applying the judicial class of service multipliers effective prior to January 1, 1973 and the second applying the class of service multipliers effective subsequent to January 1, 1973. The average class of service multiplier to be used for calculating benefits for his judicial service shall be the average of the two calculated multipliers weighted by the proportion of compensation attributable to each of the calculated multipliers during the three years of highest annual compensation in that class of service.

* * *

(e) Coordination of benefits.--The determination and payment of the maximum single life annuity under this section shall be in addition to any payments a combined service employee may be entitled to receive, has received or is receiving as a result of being a participant in the plan.

§ 5704. Disability annuities.

* * *

(c) Reduction on account of earned income.--Subsequent to January 1, 1972, payments on account of disability shall be reduced by that amount by which the earned income of the annuitant, as reported in accordance with section 5908(b) (relating to rights and duties of annuitants), for the preceding calendar year together with the disability annuity payments provided in this section other than subsection (b), for the year, exceeds the product of:

[(i)] (1) the last year's salary of the annuitant as a [State employee] member of the system; and [(ii)] (2) the ratio of the current monthly payment to the monthly payment at the effective date of disability;

Provided, That the annuitant shall not receive less than his member's annuity or the amount to which he may be entitled under section 5702 whichever is greater.

* * *

(h) Coordination of benefits.--The determination and payment of a disability annuity under this section shall be in addition to any payments a combined service employee may be entitled to receive, has received or is receiving as a result of being a participant in the plan.

Section 27. Section 5706(a), (a.1), (a.2), (b) and (c)(1) and (3) of Title 71 are amended to read:

§ 5706. Termination of annuities.

(a) General rule.--If the annuitant returns to State service or enters or has entered school service and elects multiple service membership, any annuity payable to him under this part shall cease effective upon the date of his return to State service or entering school service without regard to whether he is a mandatory, optional or prohibited member of the system or participant in the plan, or if a multiple service member, whether he is a mandatory, optional or prohibited member or participant of the Public School Employees' Retirement System or School Employees' Defined Contribution Plan and in the case of an annuity other than a disability annuity the present value of such annuity, adjusted for full coverage in the case of a joint coverage member who makes the appropriate back contributions for full coverage, shall be frozen as of the date such annuity ceases. An annuitant who is credited with an additional 10% of

Class A and Class C service as provided in section 5302(c) (relating to credited State service) and who returns to State service shall forfeit such credited service and shall have his frozen present value adjusted as if his 10% retirement incentive had not been applied to his account. In the event that the cost-of-living increase enacted December 18, 1979 occurred during the period of such State or school employment, the frozen present value shall be increased, on or after the member attains superannuation age, by the percent applicable had he not returned to service. This subsection shall not apply in the case of any annuitant who may render services to the Commonwealth in the capacity of an independent contractor or as a member of an independent board or commission or as a member of a departmental administrative or advisory board or commission when such members of independent or departmental boards or commissions are compensated on a per diem basis for not more than 150 days per calendar year or as a member of an independent board or commission requiring appointment by the Governor, with advice and consent of the Senate, where the annual salary payable to the member does not exceed $35,000 and where the member has been an annuitant for at least six months immediately preceding the appointment. Such service shall not be subject to member contributions or be eligible for qualification as creditable State service or for participation in the plan, mandatory pickup participant contributions or employer defined contributions.

(a.1) Return to State service during emergency.--When, in the judgment of the employer, an emergency creates an increase in the work load such that there is serious impairment of service to the public, an annuitant may be returned to State service for a period not to exceed 95 days in any calendar year without loss of his annuity. In computing the number of days an annuitant has returned to State service, any amount of time less than one-half of a day shall be counted as one-half of a day. For agencies, boards and commissions under the Governor's jurisdiction, the approval of the Governor that an emergency exists shall be required before an annuitant may be returned to State service. Such service shall not be subject to member contributions or be eligible for qualification as creditable State service or for participation in the plan, mandatory pickup participant contributions or employer defined contributions.

(a.2) Return of benefits.--In the event an annuitant whose annuity ceases pursuant to this section receives any annuity payment, including a lump sum payment pursuant to section 5705 (relating to member's options) on or after the date of his return to State service or entering school service, the annuitant shall return to the board the amount so received plus statutory interest. The amount payable shall be certified in each case by the board in accordance with methods approved by the actuary and shall be paid in a lump sum within 30 days or in the case of an active member or school employee who is an active member of the Public School Employees' Retirement System may be amortized with statutory interest through salary deductions to the system in amounts agreed upon by the member and the board. The salary deduction amortization plans agreed to by the member and the board may include a deferral of payment amounts and statutory interest until the termination of school service or State service or beginning service as a participant as the board in its sole discretion decides to allow. The board may limit salary deduction amortization plans to such terms as the board in its sole discretion determines. In the case of a school employee who is an active member of the Public School Employees' Retirement System, the agreed upon salary deductions shall be remitted to the Public School Employees' Retirement Board, which shall certify and transfer to the board the amounts paid.

(b) Subsequent discontinuance of service.--Upon subsequent discontinuance of service, such [member] terminating State employee other than a former annuitant who had the effect of his frozen present value eliminated in accordance with subsection (c) or a former disability annuitant shall be entitled to an annuity which is actuarially equivalent to [the sum of] the present value as determined under subsection (a) [and] to which shall be added, if the service after reemployment was as a member of the system, the present value of a maximum single life annuity based on years of service credited subsequent to reentry in the system and his final average salary computed by reference to his compensation as a member of the system or as a member of the Public School Employees' Retirement System during his entire period of State and school service.

(c) Elimination of the effect of frozen present value.--

(1) An annuitant who returns to State service as an active member of the system and earns three eligibility points by performing credited State service following the most recent period of receipt of an annuity under this part, or an annuitant who enters school service other than as a participant in the School Employees' Defined Contribution Plan and:

(i) is a multiple service member; or

(ii) who elects multiple service membership, and earns three eligibility points by performing credited State service or credited school service following the most recent period of receipt of an annuity under this part, and who had the present value of his annuity frozen in accordance with subsection (a), shall qualify to have the effect of the frozen present value resulting from all previous periods of retirement eliminated, provided that all payments under Option 4 and annuity payments payable during previous periods of retirement plus interest as set forth in paragraph (3) shall be returned to the fund in the form of an actuarial adjustment to his subsequent benefits or in such form as the board may otherwise direct.

* * *

(3) In addition to any other adjustment to the present value of the maximum single life annuity that a member may be entitled to receive that occurs as a result of any other provision of law, the present value of the maximum single life annuity shall be reduced by all amounts paid or payable to him during all previous periods of retirement plus interest on these amounts until the date of subsequent retirement. The interest for each year shall be calculated based upon the annual interest rate adopted for that fiscal year by the board for the calculation of the normal contribution rate pursuant to section 5508(b) (relating to actuarial cost method[).] <u>for fiscal years ending before July 1, 2015) or for the calculation of the accrued liability contribution rate under section 5508.1(c) (relating to actuarial cost method for fiscal years beginning July 1, 2015, or later) for fiscal years starting on or after July 1, 2015.</u>

Section 28. Section 5707(a), (b) and (f) of Title 71, amended October 24, 2012 (P.L.1436, No.181), are amended to read:

§ 5707. Death benefits.

(a) Members eligible for annuities.--Any active member, inactive member on leave without pay, combined service employee who is an active participant or inactive participant on leave without pay, vestee or current or former State employee performing USERRA leave who dies and was eligible for an annuity in accordance with section 5308(a) or (b) (relating to eligibility for annuities) or special vestee who has attained superannuation age and dies before applying for a superannuation annuity shall be considered as having applied for an annuity to become effective the day before his death and in the event he has not elected an option or such election has not been approved prior to his death, it shall be assumed that he elected Option 1.

(b) Members ineligible for annuities.--In the event of the death of a special vestee, an active member, an inactive member on leave without pay, combined service employee who is an active participant or inactive participant on leave without pay, or a current or former State employee performing USERRA leave who is not entitled to a death benefit as provided in subsection (a), his designated beneficiary shall be paid the full amount of his total accumulated deductions.

* * *

(f) Members subject to limitations under section 5702(c).--Subject to the limitations contained in section 401(a)(9) of the Internal Revenue Code of 1986 (Public Law 99-514, 26 U.S.C. § 401(a)(9)), the present value of any annuity in excess of that payable under section 5702 (relating to maximum single life annuity) that is not subject to the limitations under section

415(b) of the Internal Revenue Code of 1986 shall be paid in a lump sum to the beneficiary designated by the member after the death of the member. A beneficiary receiving a benefit under this subsection shall not be able to elect a payment method otherwise allowed under section 5709(b)(2) and (3) (relating to payment of benefits from the system).

Section 29. Sections 5708.1(f), 5708.2(f), 5708.3(f), 5708.5(f), 5708.6(f), 5708.7(f), 5708.8(g), 5709 heading, (a) and (b) and 5901(a), (c) and (d) of Title 71 are amended to read:

§ 5708.1. Additional supplemental annuities.

* * *

(f) Funding.--The actuary shall annually certify the amount of appropriations for the next fiscal year needed to fund, over a period of ten years from July 1, 2002, the additional monthly supplemental annuity provided for in this section, which amounts shall be paid during the period beginning July 1, 2002, and ending June 30, 2010. For fiscal years beginning on or after July 1, 2010, the additional liability provided in this section shall be funded as part of the actuarial accrued liability as provided in [section 5508 (relating to actuarial cost method).] sections 5508 (relating to actuarial cost method for fiscal years ending before July 1, 2015) and 5508.1 (relating to actuarial cost method for fiscal years beginning July 1, 2015, or later).

* * *

§ 5708.2. Further additional supplemental annuities.

* * *

(f) Funding.--The actuary shall annually estimate the amount of Commonwealth appropriations for the next fiscal year needed to fund, over a period of ten years from July 1, 2002, the additional monthly supplemental annuity provided for in this section, which amounts shall be paid during the period beginning July 1, 2002, and ending June 30, 2010. For fiscal years beginning on or after July 1, 2010, the additional liability provided in this section shall be funded as part of the actuarial accrued liability as provided in [section 5508 (relating to actuarial cost method).] <u>sections 5508 (relating to actuarial cost method for fiscal years ending before July 1, 2015) and 5508.1 (relating to actuarial cost method for fiscal years beginning July 1, 2015, or later).</u>

* * *

§ 5708.3. Supplemental annuities commencing 1994.

* * *

(f) Funding.--For the period beginning July 1, 2002, and ending June 30, 2010, the additional liability for the increase in benefits provided in this section shall be funded in equal dollar annual installments over a period of ten years beginning July 1, 2002. For fiscal years beginning on or after July 1, 2010, the additional liability for the increase in benefits provided in this section shall be funded as part of the actuarial accrued liability as provided in [section 5508 (relating to actuarial cost method).] <u>sections 5508 (relating to actuarial cost method for fiscal years ending before July 1, 2015) and 5508.1 (relating to actuarial cost method for fiscal years beginning July 1, 2015, or later).</u>

* * *

§ 5708.5. Supplemental annuities commencing 1998.

* * *

(f) Funding.--For the period beginning July 1, 2002, and ending June 30, 2010, the additional liability for the increase in benefits provided in this section shall be funded in equal dollar annual installments over a period of ten years beginning July 1, 2002. For fiscal years beginning on or after July 1, 2010, the additional liability for the increase in benefits provided in this section shall be funded as part of the actuarial accrued liability as provided in [section 5508 (relating to actuarial cost method).] <u>sections 5508 (relating to actuarial cost method for fiscal years ending before July 1, 2015) and 5508.1 (relating to actuarial cost method for fiscal years beginning July 1, 2015, or later).</u>

* * *

§ 5708.6. Supplemental annuities commencing 2002.

* * *

(f) Funding.--For the period beginning July 1, 2003, and ending June 30, 2010, the additional liability for the increase in benefits provided in this section shall be funded in equal dollar annual installments over a period of ten years beginning July 1, 2003. For fiscal years beginning on or after July 1, 2010, the additional liability for the increase in benefits provided in this section shall be funded as part of the actuarial accrued liability as provided in [section 5508 (relating to actuarial cost method).] <u>sections 5508 (relating to actuarial cost method for fiscal years ending before July 1, 2015) and 5508.1 (relating to actuarial cost method for fiscal years beginning July 1, 2015, or later).</u>

* * *

§ 5708.7. Supplemental annuities commencing 2003.

* * *

(f) Funding.--For the period beginning July 1, 2004, and ending June 30, 2010, the additional liability for the increase in benefits provided in this section shall be funded in equal dollar annual installments over a period of ten years beginning July 1, 2004. For fiscal years beginning on or after July 1, 2010, the additional liability for the increase in benefits provided in this section shall be funded as part of the actuarial accrued liability as provided in [section 5508 (relating to actuarial cost method).] sections 5508 (relating to actuarial cost method for fiscal years ending before July 1, 2015) and 5508.1 (relating to actuarial cost method for fiscal years beginning July 1, 2015, or later).

* * *

§ 5708.8. Special supplemental postretirement adjustment of 2002.

* * *

(g) Funding.--For the period beginning July 1, 2003, and ending June 30, 2010, the additional liability for the increase in benefits provided in this section shall be funded in equal dollar annual installments over a period of ten years beginning July 1, 2003. For fiscal years beginning on or after July 1, 2010, the additional liability for the increase in benefits provided in this section shall be funded as part of the actuarial accrued liability as provided in [section 5508 (relating to actuarial cost method).] sections 5508 (relating to actuarial cost method for fiscal years ending before July 1, 2015) and 5508.1 (relating to actuarial cost method for fiscal years beginning July 1, 2015, or later).

* * *

§ 5709. Payment of benefits from the system.

(a) Annuities.--Any annuity granted under the provisions of this part <u>and paid from the fund</u> shall be paid in equal monthly installments.

(b) Death benefits.--If the amount of a death benefit payable <u>from the fund</u> to a beneficiary <u>of a member</u> under section 5707 (relating to death benefits) or under the provisions of Option 1 of section 5705(a)(1) (relating to member's options) is $10,000 or more, such beneficiary may elect to receive payment according to one of the following options:

(1) a lump sum payment;

(2) an annuity actuarially equivalent to the amount payable; or

(3) a lump sum payment and an annuity such that the annuity is actuarially equivalent to the amount payable less the lump sum payment specified by the beneficiary.

* * *

§ 5901. The State Employees' Retirement Board.

(a) Status and membership.--The board shall be an independent administrative board and consist of 11 members: the State Treasurer, ex officio, two Senators, two members of the House of Representatives and six members appointed by the Governor, one of whom shall be an annuitant of the system <u>or a participant of the plan who has terminated State service and is receiving or is eligible to receive distributions</u>, for terms of four years, subject to confirmation by the Senate. At least five board members shall be active members of the system <u>or active participants of the plan</u>, and at least two shall have ten or more years of credited State service <u>or shall have been active participants of the plan for ten calendar years</u>. The chairman of the board shall be designated by the Governor from among the members of the board. Each member of the board who is a member of the General Assembly may appoint a duly authorized designee to act in his stead. In the event that a board member, who is designated as an active participant or as the participant in the plan who is receiving or is eligible to receive distributions, receives a total distribution of his interest in the plan, that board member may continue to serve on the board for the remainder of his term.

* * *

(c) Oath of office.--Each member of the board shall take an oath of office that he will, so far as it devolves upon him, diligently and honestly, administer the affairs of said board, the system and the plan and that he will not knowingly violate or willfully permit to be violated any of the provisions of law applicable to this part. Such oath shall be subscribed by the member taking it and certified by the officer before whom it is taken and shall be immediately filed in the Office of the Secretary of the Commonwealth.

(d) Compensation and expenses.--The members of the board who are members of the system or participants in the plan shall serve without compensation but shall not suffer loss of salary or wages through serving on the board. The members of the board who are not members of the system or participants in the plan shall receive $100 per day when attending meetings and all board members shall be reimbursed for any necessary expenses. However, when the duties of the board as mandated are not executed, no compensation or reimbursement for expenses of board members shall be paid or payable during the period in which such duties are not executed.

* * *

Section 30. Sections 5902(a.1) introductory paragraph, (3),

(5) and (6), (b), (c), (e), (h), (i), (j), (k), (m) and (n) and 5903 heading and (a) of Title 71 are amended and the sections are amended by adding subsections to read:

§ 5902. Administrative duties of the board.

* * *

(a.1) Secretary.--The secretary shall act as chief administrative officer for the board <u>with respect to both the system and the plan</u>. In addition to other powers and duties conferred upon and delegated to the secretary by the board, the secretary shall:

* * *

(3) Review and analyze proposed legislation and legislative developments affecting the system <u>or the plan</u> and present findings to the board, legislative committees, and other interested groups or individuals.

* * *

(5) Receive inquiries and requests for information concerning the system <u>or the plan</u> from the press, Commonwealth officials, State employees, the general public, research organizations, and officials and organizations from other states, and provide information as authorized by the board.

(6) Supervise a staff of administrative, technical, and clerical employees engaged in record-keeping and clerical processing activities <u>for both the system and the plan</u> in maintaining files of members <u>and participants</u>, accounting for contributions, processing payments to annuitants <u>and terminated participants</u>, preparing required reports, and retirement counseling. <u>The board may utilize the staff of employees provided for under this subsection for both the</u>

system and the plan but shall allocate the fees, costs and expenses incurred under this subsection between the system and the plan as appropriate.

(b) Professional personnel.--The board shall contract for the services of a chief medical examiner, an actuary, investment advisors and counselors, and such other professional personnel as it deems advisable. The board may, with the approval of the Attorney General, contract for legal services. The board may utilize the same individuals and firms contracted under this subsection for both the system and the plan but shall allocate the fees, costs and expenses incurred under this subsection between the system and the plan as appropriate.

(c) Expenses.--The board shall, through the Governor, submit to the General Assembly annually a budget covering the administrative expenses of [this part] the system and a separate budget covering the administrative expenses of the plan. Such expenses of the system as approved by the General Assembly in an appropriation bill shall be paid from investment earnings of the fund. Such expenses of the plan as approved by the General Assembly shall be paid from interest, pursuant to section 5414(b) (relating to investments based on members' investment allocation choices), or assessments on the balances of the participants' individual investment accounts except as may be provided otherwise by law. Concurrently with its administrative budget, the board shall also submit to the General Assembly annually a list of proposed expenditures which the board intends to pay through the use of directed commissions, together with a list of the actual expenditures from the past year actually paid by the board through the use of directed commissions. All such directed commission expenditures shall be made by the board for the exclusive benefit of the system and its members.

* * *

(e) Records.--

(1) The board shall keep a record of all its proceedings which shall be open to [inspection] access by the public, except as otherwise provided in this part or by other law.

(2) Any record, material or data received, prepared, used or retained by the board or its employees, investment professionals or agents relating to an investment shall not constitute a public record subject to public [inspection] access under the act of [June 21, 1957 (P.L.390, No.212), referred to as the Right-to-Know Law,] February 14, 2008 (P.L.6, No.3), known as the Right-to-Know Law, if, in the reasonable judgment of the board, the [inspection] access would:

(i) in the case of an alternative investment or alternative investment vehicle, involve the release of sensitive investment or financial information relating to the alternative investment or alternative investment vehicle which the fund or trust was able to obtain only upon agreeing to maintain its confidentiality;

(ii) cause substantial competitive harm to the person from whom sensitive investment or financial information relating to the investment was received; or

(iii) have a substantial detrimental impact on the value of an investment to be acquired, held or disposed of by the fund or trust or would cause a breach of the standard of care or fiduciary duty set forth in this part.

(3) (i) The sensitive investment or financial

information excluded from [inspection] <u>access</u> under paragraph (2)(i), to the extent not otherwise excluded from [inspection] <u>access</u>, shall constitute a public record subject to public [inspection] <u>access</u> under the Right-to-Know Law once the board is no longer required by its agreement to maintain confidentiality.

(ii) The sensitive investment or financial information excluded from [inspection] <u>access</u> under paragraph (2)(ii), to the extent not otherwise excluded from [inspection] <u>access</u>, shall constitute a public record subject to public [inspection] <u>access</u> under the Right-to-Know Law once:

(A) the [inspection] <u>access</u> no longer causes substantial competitive harm to the person from whom the information was received; or

(B) the entity in which the investment was made is liquidated;

whichever is later.

(iii) The sensitive investment or financial information excluded from [inspection] <u>access</u> under paragraph (2)(iii), to the extent not otherwise excluded from [inspection] <u>access</u>, shall constitute a public record subject to public [inspection] <u>access</u> under the Right-to-Know Law once:

(A) the [inspection] <u>access</u> no longer has a substantial detrimental impact on the value of an investment of the fund <u>or trust</u> and would not cause a breach of the standard of care or fiduciary duty set forth in this part; or

(B) the entity in which the investment was made is liquidated;

whichever is later.

(4) Except for the provisions of paragraph (3), nothing in this subsection shall be construed to designate any record, material or data received, prepared, used or retained by the board or its employees, investment professionals or agents relating to an investment as a public record subject to public [inspection] access under the Right-to-Know Law.

(5) Any record, material or data received, prepared, used or retained by the board or its employees, or agents relating to the contributions, account value or benefits payable to or on account of a participant shall not constitute a public record subject to public access under the Right-to-Know Law, if, in the reasonable judgment of the board, the access would disclose any of the following:

(i) The existence, date, amount and any other information pertaining to the voluntary contributions, including rollover contributions or trustee-to-trustee transfers, of any participant.

(ii) The investment options selections of any participant.

(iii) The balance of a participant's account, including the amount distributed to the participant investment gains or losses or rates of return.

(iv) The identity of a participant's designated beneficiary, successor payee or alternate payee.

(v) The benefit payment option of a participant.

(6) Nothing in this subsection shall be construed to designate any record, material or data received, prepared, used or retained by the board or its employees, or agents

relating to the contributions, account value or benefits payable to or on account of a participant as a public record subject to public access under the Right-to-Know Law.

* * *

(h) Regulations and procedures.--The board shall, with the advice of the Attorney General and the actuary, adopt and promulgate rules and regulations for the uniform administration of the system. The actuary shall approve in writing all computational procedures used in the calculation of contributions and benefits pertaining to the system, and the board shall by resolution adopt such computational procedures, prior to their application by the board. Such rules, regulations and computational procedures as so adopted from time to time and as in force and effect at any time, together with such tables as are adopted pursuant to subsection (j) as necessary for the calculation of annuities and other benefits, shall be as effective as if fully set forth in this part. Any actuarial assumption specified in or underlying any such rule, regulation or computational procedure and utilized as a basis for determining any benefit shall be applied in a uniform manner.

(i) Data.--The board shall keep in convenient form such data as are stipulated by the actuary in order that an annual actuarial valuation of the various accounts of the fund can be completed within six months of the close of each calendar year.

(j) Actuarial investigation and valuation.--The board shall have the actuary make an annual valuation of the various accounts of the fund within six months of the close of each calendar year. In the year 1975 and in every fifth year thereafter the board shall have the actuary conduct an actuarial investigation and evaluation of the system based on data including the mortality, service, and compensation experience provided by the board annually during the preceding five years concerning the members and beneficiaries of the system. The board shall by resolution adopt such tables as are necessary for the actuarial valuation of the fund and calculation of contributions, annuities and other benefits based on the reports and recommendations of the actuary. Within 30 days of their adoption, the secretary of the board shall cause those tables which relate to the calculation of annuities and other benefits to be published in the Pennsylvania Bulletin in accordance with the provisions of 45 Pa.C.S. § 725(a) (relating to additional contents of Pennsylvania Bulletin) and, unless the board specifies therein a later effective date, such tables shall become effective on such publication. The board shall include a report on the significant facts, recommendations and data developed in each five-year actuarial investigation and evaluation of the system in the annual financial statement published pursuant to the requirements of subsection (m) for the fiscal year in which such investigation and evaluation were concluded.

(k) Certification of employer contributions to the fund.--The board shall, each year in addition to the itemized budget required under section 5509 (relating to appropriations and assessments by the Commonwealth), certify, as a percentage of the members' payroll, the shared-risk contribution rate, the employers' contributions as determined pursuant to [section 5508 (relating to actuarial cost method)] sections 5508 (relating to actuarial cost method for fiscal years ending before July 1, 2015) and 5508.1 (relating to actuarial cost method for fiscal years beginning July 1, 2015, or later) necessary for the funding of prospective annuities for active members and the annuities of annuitants and certify the rates and amounts of the employers' normal contributions as determined pursuant to [section] <u>sections</u> 5508(b) <u>and 5508.1(b)</u>, accrued liability contributions as determined pursuant to [section] <u>sections</u> 5508(c) <u>and 5508.1(c) and (d)</u>, supplemental annuities contribution rate as determined pursuant to section 5508(e), the experience adjustment factor as determined pursuant to [section] <u>sections</u> 5508(f) <u>and 5508.1(f)</u>, the collared contribution rate pursuant to section 5508(h) and the final contribution rate pursuant to section 5508(i), which shall be paid to the fund and credited to the appropriate accounts. The board may allocate the final contribution rate and certify various employer contribution rates <u>and amounts</u> based upon the different benefit eligibility, class of service multiplier, superannuation age and other benefit differences resulting from State service credited for individual members even though such allocated employer contribution rate on behalf of any given member may be more or less than 5% of the member's compensation for the period from July 1, 2010, to June 30, 2011, or may differ from the prior year's contribution for that member by more or less than the percentages used to calculate the collared contribution rate for that year and may be below any minimum contribution rate established for the collared contribution rate or final contribution rate. These certifications shall be regarded as final and not subject to modification by the Secretary of the Budget.

* * *

(m) Annual financial statement.--The board shall prepare and have published, on or before July 1 of each year, [a financial statement] financial statements as of the calendar year ending December 31 of the previous year showing the condition of the fund and the trust and the various accounts, including, but not limited to, the board's accrual and expenditure of directed commissions, and setting forth such other facts, recommendations, and data as may be of use in the advancement of knowledge concerning annuities and other benefits provided by this part. The board shall submit said financial [statement] statements to the Governor and shall file copies with the head of each department for the use of the State employees and the public.

(n) Independent [audit] audits.--The board shall provide for [an annual audit] annual audits of the system and the plan by [an] independent certified public [accountant] accountants, which [audit] audits shall include the board's accrual and expenditure of directed commissions. The board may use the same independent certified public accountant for the audits of both the system and the plan.

* * *

(p) Participant and employer contributions to the trust.--The board shall, each year in addition to any fees and itemized budget required under section 5509 (relating to appropriations and assessments by the Commonwealth), certify, as a percentage of each participant's compensation, the employer defined contributions, which shall be paid to the trust and credited to each participant's individual investment account. These certifications shall be regarded as final and not subject to modification by the Secretary of the Budget. The board shall cause all mandatory pickup participant contributions made on behalf of a participant and all voluntary contributions made by a participant to be credited to the participant's individual investment account.

§ 5903. Duties of the board to advise and report to heads of departments [and], members and participants.

(a) Manual of regulations.--The board shall, with the advice of the Attorney General and the actuary, prepare and provide, within 90 days of the effective date of this part, a manual incorporating rules and regulations consistent with the provisions of this part to the heads of departments who shall make the information contained therein available to the general membership. The board shall thereafter advise the heads of departments within 90 days of any changes in such rules and regulations due to changes in the law or due to changes in administrative policies. As soon as practicable after the commissioner's announcement with respect thereto, the board shall also advise the heads of departments as to any cost-of-living adjustment for the succeeding calendar year in the amount of the limitation under IRC § 401(a)(17) and the dollar amounts of the limitations under IRC § 415[(b)]. As soon as practicable after January 1 of each year, the board shall also advise the heads of departments of the employees for whom, pursuant to section 5502.1 (relating to waiver of regular member contributions and Social Security integration member contributions), pickup contributions are not to be made.

* * *

(b.1) Participant status statements.--The board shall have furnished annually to each participant, on or before April 1 and more frequently as the board may agree or as required by law, a statement for each participant in the plan showing the accumulated total defined contributions credited to the participant's individual investment account, the nature and type of investments and the investment allocation of future contributions as of December 31 of the previous year and requesting the participant to make any necessary correction or revision regarding his designated beneficiary.

* * *

Section 31. Section 5904(c)(2) of Title 71 is amended to read:

§ 5904. Duties of the board to report to the Public School Employees' Retirement Board.

* * *

(c) Applications for benefits for school employees.--Upon receipt of notification and the required data from the Public School Employees' Retirement Board that a former State employee who elected multiple service has applied for a public school employees' retirement benefit or, in the event of his death, his legally constituted representative has applied for such benefit, the board shall:

* * *

(2) transfer to the Public School Employees' Retirement Fund the total accumulated deductions standing to such member's credit and the actuarial reserve required on account of years of credited service in the State system, final average salary determined on the basis of his compensation as a member in both systems and the average noncovered salary to be charged to the State accumulation account, the State Police benefit account or the enforcement officers' benefit account, as each case may require.

* * *

Section 32. Section 5905 heading, (b)(3), (c.1) and (g) of

Title 71, amended October 24, 2012 (P.L.1436, No.181), are amended and the section is amended by adding subsections to read:

§ 5905. Duties of the board regarding applications and elections of members <u>and participants</u>.

* * *

(b) School employees electing multiple service status.--Upon receipt of notification from the Public School Employees' Retirement Board that a former State employee has become an active member in the Public School Employees' Retirement System and has elected to become a member with multiple service status the board shall:

* * *

(3) in case of a former State employee who is not receiving an annuity from the system and his total accumulated deductions were withdrawn, certify to the former State employee the accumulated deductions as they would have been at the time of his separation had he been a full coverage member together with statutory interest for all periods of subsequent State <u>service eligible for membership in the system</u> and school service <u>as a member of the Public School Employees' Retirement System</u> to the date of repayment. Such amount shall be restored by him and shall be credited with statutory interest as such payments are restored.

* * *

(c.1) Termination of service <u>by a member</u>.--In the case of any member terminating State service who is entitled to an annuity and who is not then a disability annuitant, the board shall advise such member in writing of any benefits <u>from the system</u> to which he may be entitled under the provisions of this part and shall have the member prepare, on or before the date of termination of State service, one of the following three forms, a copy of which shall be given to the member and the original of which shall be filed with the board:

(1) an application for the return of total accumulated deductions;

(2) an election to vest his retirement rights and, if he is a joint coverage member and so desires, elect to become a full coverage member and agree to pay within 30 days of the date of termination of service the lump sum required; or

(3) an application for an immediate annuity and, if he desires:

(i) an election to convert his medical, major medical and hospitalization insurance coverage to the plan for State annuitants; and

(ii) if he is a joint coverage member, an election to become a full coverage member and an agreement to pay within 30 days of date of termination of service the lump sum required.

(c.2) Termination of service by a participant.--In the case of any participant terminating State service, the board shall advise the participant in writing of the accumulated total defined contributions credited to the participant's individual investment account as of the date stated in the writing, any notices regarding rollover or other matters required by IRC or other law, the obligation of the participant to commence distributions from the plan by the participant's required beginning date and the ability to receive all or part of the balance in the participant's individual investment account in a lump sum or in such other form as the board may authorize or is required by law.

* * *

(e.2) Notification to inactive participants approaching required beginning date.--The board shall notify each inactive participant who has terminated State service and had not commenced distribution by 90 days before the participant's required beginning date in writing that the participant has an obligation to commence distributions by his required beginning date in a form and manner required by IRC § 401(a)(9) and other applicable provisions of the IRC.

* * *

(f.1) Initial payment to a participant.--The board shall make the initial payment to a participant who has applied for a distribution within 60 days of the filing of his application.

(g) Death benefits.--Upon receipt of notification from the head of a department of the death of an active member, a member performing USERRA leave [or], a member on leave without pay, an active participant, an inactive participant on leave without pay or a former participant performing USERRA leave, the board shall advise the designated beneficiary of the benefits to which he is entitled, and shall make the first payment to the beneficiary within 60 days of receipt of certification of death and other necessary data. If no beneficiary designation is in effect at the date of the member's death or no notice has been filed with the board to pay the amount of the benefits to the member's estate, the board is authorized to pay the benefits to the executor, administrator, surviving spouse or next of kin of the deceased member, and payment pursuant hereto shall fully discharge the fund from any further liability to make payment of such benefits to any other person. If the surviving spouse or next of kin of the deceased member cannot be found for the purpose of paying the benefits for a period of seven years from the date of death of the member, then the benefits shall be escheated to the Commonwealth for the benefit of the fund. <u>If no beneficiary designation is in effect at the date of a participant's death or no notice has been filed with the board to pay the amount of the benefits to the participant's estate, the board is authorized to pay the benefits to the surviving spouse, executor, administrator or next of kin of the deceased participant and payment pursuant hereto shall fully discharge the fund from any further liability to make payment of such benefits to any other person.</u>

* * *

Section 33. Section 5906(a) introductory paragraph and (3), (b), (d), (e), (g), (h), (i) and (l) of Title 71, amended October 24, 2012 (P.L.1436, No.181), are amended and the section is amended by adding subsections to read:

§ 5906. Duties of heads of departments.

(a) Status of members <u>and participants</u>.--The head of department shall, at the end of each pay period, notify the board in a manner prescribed by the board of salary changes effective during that period for any members <u>and participants</u> of the department, the date of all removals from the payroll, and the type of leave of any members <u>and participants</u> of the department who have been removed from the payroll for any time during that period, and:

* * *

(3) if the removal is due to termination of State service, he shall furnish the board with a complete State service record, including service in other departments or

agencies, or creditable nonstate service and;

(i) in the case of death of the member or participant the head of the department shall so notify the board;

(ii) in the case of a service connected disability of a member the head of department shall, to the best of his ability, investigate the circumstances surrounding the disablement of the member and submit in writing to the board information which shall include but not necessarily be limited to the following: date, place and time of disablement to the extent ascertainable; nature of duties being performed at such time; and whether or not the duties being performed were authorized and included among the member's regular duties. In addition, the head of department shall furnish in writing to the board all such other information as may be related to the member's disablement;

(iii) in the case of a member terminating from The Pennsylvania State University who is a member of the system with five or more but less than ten eligibility points and who has terminated State service on June 30, 1997, because of the transfer of his job position or duties to a controlled organization of the Penn State Geisinger Health System or because of the elimination of his job position or duties due to the transfer of other job positions or duties to a controlled organization of the Penn State Geisinger Health System, the head of the department shall so certify to the board.

(b) Records and information.--At any time at the request of the board and at termination of service of a member or a participant, the head of department shall furnish service and compensation records and such other information as the board may require and shall maintain and preserve such records as the board may direct for the expeditious discharge of its duties.

* * *

(c.1) Participant and employer defined contributions.--The head of the department shall:

(1) Cause the mandatory pickup participant contributions on behalf of a participant to be made and cause to be deducted any voluntary contributions authorized by a participant.

(2) Cause the employer defined contributions on behalf of a participant to be made.

(3) Notify the board at times and in a manner prescribed by the board of the compensation of any participant to whom the limitation under IRC § 401(a)(17) either applies or is expected to apply and cause such participant's contributions to be deducted from payroll to cease at the limitation under IRC § 401(a)(17) on the payroll date if and when such limit shall be reached.

(4) Certify to the State Treasurer the amounts picked up and deducted and the employer defined contributions being made and send the total amount picked up, deducted and contributed together with a duplicate of such voucher to the secretary of the board every pay period or on such schedule as established by the board.

(d) New employees subject to mandatory membership or participation.--Upon the assumption of duties of each new State employee whose membership in the system or plan is mandatory, the head of department shall cause an application for membership or participation and a nomination of beneficiary to be made by such employee and filed with the board and shall make pickup contributions or mandatory pickup participant contributions from the effective date of State employment.

(e) New employees subject to optional membership or participation.--The head of department shall, upon the employment or entering into office of any State employee whose membership in the system or participation in the plan is not mandatory, inform such employee of his opportunity to become a member of the system or participant in the plan. If such employee so elects, the head of department shall cause an application for membership and a nomination of beneficiary to be made by him and filed with the board and shall cause proper contributions to be made from the effective date of membership or participation.

* * *

(g) Former school employee contributors.--The head of department shall, upon the employment of a former contributor to the Public School Employees' Retirement System who is not an annuitant of the Public School Employees' Retirement System, advise such employee of his right to elect within 365 days of entry into the system to become a multiple service member, and in the case of any such employee who so elects and has withdrawn his accumulated deductions, require him to reinstate his credit in the Public School Employees' Retirement System. The head of the department shall advise the board of such election. This subsection shall not apply to a State employee who is employed in a position where he is or may be a participant in the plan other than by an election under section 5416 (relating to election by members to be participants).

(h) Former school employee annuitants.--The head of department shall, upon the employment of an annuitant of the Public School Employees' Retirement System who applies for membership in the system, advise such employee that he may elect multiple service membership within 365 days of entry into the system and if he so elects his public school employee's annuity will be discontinued effective upon the date of his return to State service and, upon termination of State service and application for an annuity, the annuity will be adjusted in accordance with section 5706 (relating to termination of annuities). The head of department shall advise the board of such election. This subsection shall not apply to a State employee who is employed in a position where he is or may be a participant in the plan other than by an election under section 5416.

(i) Annual statement to members.--Annually, upon receipt from the board, the head of department shall furnish to each member the statement specified in section 5903(b) (relating to duties of the board to advise and report to heads of departments [and], members and participants).

* * *

(l) State employees performing USERRA or military-related leave of absence.--The head of department shall report to the board any State employee who ceases to be an active member or active participant to perform USERRA service, or who is granted a leave of absence under 51 Pa.C.S. § 4102 (relating to leaves of absence for certain government employees) or a military leave of absence under 51 Pa.C.S. § 7302 (relating to granting military leaves of absence), the date on which the USERRA service, leave of absence or military leave of absence began, the date on which the State employee is reemployed from USERRA leave or returns after the leave of absence or military leave of absence, if the event occurs, and any other information the board may require or direct.

* * *

(n) Obligation of educational institutions to report participation and compensation of employees in independent retirement programs.--The Pennsylvania State University, the State System of Higher Education, State-owned educational institutions and community colleges shall report to the board the compensation and other information as the board may request for the application and administration of sections 5507.1 (relating to contributions to the system by the Commonwealth and other employers starting July 1, 2015) and 5508.1(c) and (d) (relating to actuarial cost method for fiscal years beginning July 1, 2015, or later) of employees who are participants or members in the Public School Employees' Retirement System, School Employees' Defined Contribution Plan or independent retirement programs approved by the employer.

Section 34. Section 5907 heading, (a), (e) and (f) of Title 71 are amended and the section is amended by adding subsections to read:

§ 5907. Rights and duties of State employees [and], members and participants.

(a) Information on new employees.--Upon his assumption of duties each new State employee shall furnish the head of department with a complete record of his previous State service, his school service or creditable nonstate service, and proof of his date of birth and current status in the system and the plan and in the Public School Employees' Retirement System and the

School Employees' Defined Contribution Plan. Willful failure to provide the information required by this subsection to the extent available upon entrance into the system shall result in the forfeiture of the right of the member to subsequently assert any right to benefits based on any of the required information which he failed to provide. In any case in which the board finds that a member is receiving an annuity based on false information, the total amount received predicated on such false information together with statutory interest doubled and compounded shall be deducted from the present value of any remaining benefits to which the member is legally entitled.

* * *

(b.1) Application for participation.--On or after January 1, 2015, in the case of a new employee who is not currently a participant in the plan and whose participation is mandatory or in the case of a new employee whose participation is not mandatory but is permitted and who desires to become a participant in the plan, the new employee shall execute an application for participation and a nomination of a beneficiary.

* * *

(d.2) Contributions for USERRA leave.--Any active participant or inactive participant on leave without pay or former participant who was reemployed from USERRA leave who desires to make mandatory pickup participant contributions and voluntary contributions for his USERRA leave shall so notify the board within the time period required under 38 U.S.C. Ch. 43 (relating to employment and reemployment rights of members of the uniformed services) and IRC § 414(u) of his desire to make such contributions. Upon making the permitted mandatory pickup participant contributions within the allowed time period, the head of the department shall make the corresponding employer defined contributions at the same time.

(d.3) Voluntary contributions by participant.--Any active participant who desires to make voluntary contributions to be credited to his individual investment account shall notify the board and, upon compliance with the requirements, procedures and limitations established by the board in the plan document, may do so subject to the limitation under IRC §§ 401(a) and 415 and other applicable law.

(e) Beneficiary for death benefits from the system.--Every member shall nominate a beneficiary by written designation filed with the board as provided in section 5906(d) or (e) (relating to duties of heads of departments) to receive the death benefit payable under section 5707 (relating to death benefits) or the benefit payable under the provisions of Option 1 of section 5705(a)(1) (relating to member's options). Such nomination may be changed at any time by the member by written designation filed with the board. A member may also nominate a contingent beneficiary or beneficiaries to receive the death benefit provided under section 5707 or the benefit payable under the provisions of Option 1 of section 5705(a)(1).

(e.1) Beneficiary for death benefits from the plan.--Every participant shall nominate a beneficiary by written designation filed with the board as provided in section 5906(d) or (e) to receive the death benefit payable under section 5408 (relating to death benefits). A participant may also nominate a contingent beneficiary or beneficiaries to receive the death benefit provided under section 5408. Such nomination may be changed at any time by the participant by written designation filed with the board.

(e.2) Beneficiary for combined service employee.--A combined service employee may designate or nominate different persons to be beneficiaries, survivor annuitants and successor payees for his benefits from the system and the plan.

(f) Termination of service by members.--Each member who terminates State service and who is not then a disability annuitant shall execute on or before the date of termination of service the appropriate application, duly attested by the member or his legally constituted representative, electing to:

(1) withdraw his total accumulated deductions; or

(2) vest his retirement rights; and if he is a joint coverage member, and so desires, elect to become a full coverage member and agree to pay within 30 days of the date of termination of service the lump sum required; or

(3) receive an immediate annuity and may,

(i) if eligible, elect to convert his medical, major medical, and hospitalization coverage to the plan for State annuitants; and

(ii) if he is a joint coverage member, elect to become a full coverage member and agree to pay within 30 days of date of termination of service the lump sum required.

* * *

(g.1) Deferral of retirement rights.--If a participant terminates State service and does not commence receiving a distribution, he shall nominate a beneficiary, and he may anytime thereafter, but no later than his required beginning date, withdraw the accumulated total defined contributions standing to his credit or apply for another form of distribution required by law or authorized by the board.

* * *

Section 35. Sections 5931(b), 5932, 5934, 5935, 5936, 5937, 5938, 5939, 5951 and 5953 of Title 71 are amended to read:

§ 5931. Management of fund and accounts.

* * *

(b) Crediting of interest.--The board, annually, shall allow the required interest on the mean amount for the preceding year to the credit of each of the accounts <u>other than the individual investment accounts</u>. The amount so allowed shall be credited thereto by the board and transferred from the interest reserve account.

* * *

§ 5932. State Employees' Retirement Fund.

The fund shall consist of all balances in the several separate accounts set apart to be used under the direction of the board for the benefit of members of the system; and the Treasury Department shall credit to the fund all moneys received from the Department of Revenue arising from the contributions <u>relating to or on behalf of members of the system</u> required under the provisions of Chapter 55 (relating to contributions), and any income earned by the investments or moneys of said fund. There shall be established and maintained by the board the several ledger accounts specified in sections 5933 (relating to members' savings account), 5934 (relating to State accumulation account), 5935 (relating to annuity reserve account), 5936 (relating to State Police benefit account), 5937 (relating to enforcement officers' benefit account), 5938 (relating to supplemental annuity account) and 5939 (relating to interest reserve account). <u>The individual investment accounts that are part of the trust shall not be part of the fund. Mandatory</u>

pickup participant contributions, voluntary contributions and employer defined contributions made under this part and any income earned by the investment of such contributions shall not be paid or credited to the fund but shall be paid to the trust and credited to the individual investment accounts.

§ 5934. State accumulation account.

The State accumulation account shall be the ledger account to which shall be credited all contributions of the Commonwealth or other employers whose employees are members of the system and made in accordance with the provisions of [section 5507(a) or (d) (relating to contributions by the Commonwealth and other employers)] sections 5507(a) or (d) (relating to contributions to the system by the Commonwealth before July 1, 2015) and 5507.1 (relating to contributions to the system by the Commonwealth and other employers starting July 1, 2015) except that the amounts received under the provisions of the act of May 12, 1943 (P.L.259, No.120), and the amounts received under the provisions of the Liquor Code, act of April 12, 1951 (P.L.90, No.21), shall be credited to the State Police benefit account or the enforcement officers' benefit account as the case may be. All amounts transferred to the fund by county retirement systems or pension plans in accordance with the provisions of section 5507(c) also shall be credited to the State accumulation account. All amounts transferred to the fund by the Public School Employees' Retirement System in accordance with section 5303.2(e) (relating to election to convert school service to State service), except amounts credited to the members' savings account, and all amounts paid by the Department of Corrections in accordance with section 5303.2(f) also shall be credited to the State accumulation account. The State accumulation account shall be credited with valuation interest. The reserves necessary for the payment of annuities and death benefits resulting from membership in the system as approved by the board and as provided in Chapter 57 (relating to benefits) shall be transferred from the State accumulation account to the annuity reserve account provided for in section 5935 (relating to annuity reserve account), except that the reserves necessary on account of a member who is an officer of the Pennsylvania State Police or an enforcement officer shall be transferred from the State accumulation account to the State Police benefit account provided for in section 5936 (relating to State Police benefit account) or to the enforcement officers' benefit account as provided for in section 5937 (relating to enforcement officers' benefit account) as the case may be. The reserves necessary for the payment of supplemental annuities in excess of those reserves credited to the supplemental annuity account on June 30, 2010, shall be transferred from the State accumulation account to the supplemental annuity account. In the event that supplemental annuities are increased by legislation enacted after December 31, 2009, the necessary reserves shall be transferred from the State accumulation account to the supplemental annuity account.

§ 5935. Annuity reserve account.

(a) Credits and charges to account.--The annuity reserve account shall be the ledger account to which shall be credited the reserves held for payment of annuities and death benefits on account of all annuitants except in the case of members who are officers of the Pennsylvania State Police or enforcement officers. The annuity reserve account shall be credited with valuation interest. After the transfers provided in sections

5933 (relating to members' savings account), 5934 (relating to State accumulation account) and 5938 (relating to supplemental annuity account), all annuity and death benefit payments resulting from membership in the system except those payable to any member who retires as an officer of the Pennsylvania State Police or an enforcement officer shall be charged to the annuity reserve account and paid from the fund.

(b) Transfers from account.--Should an annuitant other than a member who was retired as an officer of the Pennsylvania State Police or an enforcement officer be subsequently restored to active service as a member of the system or as a participant in the plan, the present value of his member's annuity at the time of reentry into State service shall be transferred from the annuity reserve account and placed to his individual credit in the members' savings account. In addition, the actuarial reserve for his annuity less the amount transferred to the members' savings account shall be transferred from the annuity reserve account to the State accumulation account.

§ 5936. State Police benefit account.

(a) Credits and charges to account.--The State Police benefit account shall be the ledger account to which shall be credited all contributions received under the provisions of the act of May 12, 1943 (P.L.259, No.120), and any additional Commonwealth or other employer contributions provided for in [section 5507 (relating to contributions by the Commonwealth and other employers)] sections 5507 (relating to contributions to the system by the Commonwealth and other employers before July 1, 2015) and 5507.1 (relating to contributions to the system by the Commonwealth and other employers starting July 1, 2015) which are creditable to the State Police benefit account. The

State Police benefit account shall be credited with the required interest. In addition, upon the filing of an application for an annuity by a member who is an officer of the Pennsylvania State Police, the total accumulated deductions standing to the credit of the member in the members' savings account and the necessary reserves from the State accumulation account shall be transferred to the State Police benefit account. Thereafter, the total annuity of such annuitant shall be charged to the State Police benefit account and paid from the fund.

(b) Transfers from account.--Should the said annuitant be subsequently restored to active service as a member of the system or as a participant in the plan, the present value of the member's annuity at the time of reentry into State service shall be transferred from the State Police benefit account and placed to his individual credit in the members' savings account. In addition, the actuarial reserve for his annuity calculated as if he had been a member of Class A if he has Class A or Class C service credited; as if he had been a member of Class A-3 if the annuitant has Class A-3 State service credited; or as if he had been a member of Class A-4 if the annuitant has Class A-4 service credited, less the amount transferred to the members' savings account shall be transferred from the State Police benefit account to the State accumulation account. Upon subsequent retirement other than as an officer of the Pennsylvania State Police the actuarial reserve remaining in the State Police benefit account shall be transferred to the appropriate reserve account.

§ 5937. Enforcement officers' benefit account.

(a) Credits and charges to account.--The enforcement officers' benefit account shall be the ledger account to which shall be credited moneys transferred from the enforcement officers' retirement account in the State Stores Fund according to the provisions of the act of April 12, 1951 (P.L.90, No.21), known as the Liquor Code, and any additional Commonwealth or other employer contributions provided for in [section 5507 (relating to contributions by the Commonwealth and other employers)] <u>sections 5507 (relating to contributions to the system by the Commonwealth and other employers before July 1, 2015) and 5507.1 (relating to contributions to the system by the Commonwealth and other employers starting July 1, 2015)</u> which are creditable to the enforcement officers' benefit account. The enforcement officers' benefit account shall be credited with the required interest. In addition, upon the filing of an application for an annuity by a member who is an enforcement officer of the Pennsylvania Liquor Control Board, the total accumulated deductions standing to the credit of the member in the members' savings account and the necessary reserves from the State accumulation account shall be transferred to the enforcement officers' benefit account. Thereafter, the total annuity of such annuitant shall be charged to the enforcement officers' benefit account and paid from the fund.

(b) Transfers from account.--Should the said annuitant be subsequently restored to active service <u>as a member of the system or as a participant in the plan</u>, the present value of the member's annuity at the time of reentry into State service shall be transferred from the enforcement officers' benefit account and placed to his individual credit in the members' savings account. In addition, the actuarial reserve for his annuity calculated as if he had been a member of Class A if the annuitant does not have any Class AA, Class A-3 or Class A-4 service credited; as if he had been a member of Class AA if the annuitant does have Class AA service credited; as if he had been a member of Class A-3 if the annuitant has Class A-3 State service credited; or as if he had been a member of Class A-4 if the annuitant has Class A-4 service credited, less the amount transferred to the members' savings account shall be transferred from the enforcement officers' benefit account to the State accumulation account. Upon subsequent retirement other than as an enforcement officer the actuarial reserve remaining in the enforcement officers' benefit account shall be transferred to the appropriate reserve account.

§ 5938. Supplemental annuity account.

The supplemental annuity account shall be the ledger account to which shall be credited all contributions from the Commonwealth and other employers in accordance with section 5507(b) [(relating to contributions by the Commonwealth and other employers)] (relating to contributions to the system by the Commonwealth and other employers before July 1, 2015) for the payment of the supplemental annuities provided in sections 5708 (relating to supplemental annuities), 5708.1 (relating to additional supplemental annuities), 5708.2 (relating to further additional supplemental annuities), 5708.3 (relating to supplemental annuities commencing 1994), 5708.4 (relating to special supplemental postretirement adjustment), 5708.5 (relating to supplemental annuities commencing 1998), 5708.6 (relating to supplemental annuities commencing 2002), 5708.7 (relating to supplemental annuities commencing 2003) and 5708.8 (relating to special supplemental postretirement adjustment of 2002) made before July 1, 2010, the amount transferred from the State accumulation account to provide all additional reserves necessary as of June 30, 2010, to pay such supplemental annuities and adjustments, and the amounts transferred from the State accumulation account to provide all additional reserves necessary as a result of supplemental annuities enacted after December 31, 2009. The supplemental annuity account shall be credited with valuation interest. The reserves necessary for the payment of such supplemental annuities shall be transferred from the supplemental annuity account to the annuity reserve account as provided in section 5935 (relating to annuity reserve account).

§ 5939. Interest reserve account.

The interest reserve account shall be the ledger account to which shall be credited all income earned by the fund and to which shall be charged all administrative and investment expenses incurred by the fund. At the end of each year the required interest shall be transferred from the interest reserve account to the credit of each of the accounts of the fund in accordance with the provisions of this subchapter. In addition, at the end of each accounting period, the interest reserve account shall be credited or charged with all recognized changes in the market valuation of the investments of the fund. The administrative and investment expenses of the board relating to the administration of the system and investments of the fund shall be paid from the fund out of earnings. Any surplus or deficit in the interest reserve account at the end of each year shall be transferred to the State accumulation account.

§ 5951. State guarantee regarding the State Employees' Retirement System.

The required interest charges payable, the maintenance of reserves in the fund, and the payment of all annuities and other benefits granted by the board from the system under the provisions of this part relating to the establishment and administration of the system are hereby made obligations of the Commonwealth. All income, interest, and dividends derived from deposits and investments of the system authorized by this part shall be used for the payment of the said obligations of the Commonwealth and shall not be used for any obligations of the plan or trust.

§ 5953. Taxation, attachment and assignment of funds.

(a) General rule.--

(1) Except as provided in paragraphs (2), (3) [and], (4) and (5), the right of a person to any benefit or right accrued or accruing under the provisions of this part and the moneys in the fund and the trust are hereby exempt from any State or municipal tax, levy and sale, garnishment, attachment, spouse's election, the provisions of Article XIII.1 of the act of April 9, 1929 (P.L.343, No.176), known as The Fiscal Code, or any other process whatsoever, and no participant or beneficiary, successor payee or alternate payee of a participant shall have the ability to commute, sell, assign, alienate, anticipate, mortgage, pledge, hypothecate, commutate or otherwise transfer or convey any benefit or interest in an individual investment account or rights to receive or direct distributions under this part or under agreements entered into under this part except as otherwise provided in this part and in the case of either a member or a participant except for a set-off by the Commonwealth in the case provided in subparagraph (i), and shall be unassignable except:

(i) To the Commonwealth in the case of a member or participant who is terminating State service and has been determined to be obligated to the Commonwealth for the repayment of money owed on account of his employment or to the fund on account of a loan from a credit union to a member which has been satisfied by the board from the fund.

(ii) To a credit union as security for a loan to a member not to exceed $750 and interest not to exceed 6% per annum discounted and/or fines thereon if the credit union is now or hereafter organized and incorporated under the laws of this Commonwealth and the membership of such credit union is limited solely to officials and employees of the Commonwealth and if such credit union has paid to the fund $3 for each such assignment.

(2) Rights under this part shall be subject to forfeiture as provided by the act of July 8, 1978 (P.L.752, No.140), known as the Public Employee Pension Forfeiture Act, and by or pursuant to section 16(b) of Article V of the Constitution of Pennsylvania. Forfeitures under this subsection or under any other provision of law may not be applied to increase the benefits that any member would otherwise receive under this part. Notwithstanding this paragraph, 42 Pa.C.S. § 3352 (relating to pension rights), the Public Employee Pension Forfeiture Act or section 16(b) of Article V of the Constitution of Pennsylvania, the accumulated mandatory participant contributions and accumulated voluntary contributions standing to the credit of a participant shall not be forfeited but shall be available for payment of fines and restitution as provided by law. Furthermore, amounts in the trust that have been ordered to

be distributed to an alternate payee as the result of an equitable distribution of marital property as part of an approved domestic relations order entered before the date of the order or action in a court or other tribunal resulting in a forfeiture of a participant's interest in the trust shall not be subject to 42 Pa.C.S. § 3352, the Public Employee Pension Forfeiture Act or section 16(b) of Article V of the Constitution of Pennsylvania. Any accumulated employer defined contributions forfeited as a result of this paragraph or other law shall be retained by the board and used for the payment of expenses of the plan.

(3) Rights under this part shall be subject to attachment in favor of an alternate payee as set forth in an approved domestic relations order.

(4) Effective with distributions made on or after January 1, 1993, and notwithstanding any other provision of this part to the contrary, a distributee may elect, at the time and in the manner prescribed by the board, to have any portion of an eligible rollover distribution paid directly to an eligible retirement plan by way of a direct rollover. For purposes of this paragraph, a "distributee" includes a member [and], a participant, a member's surviving spouse [and], a participant's surviving spouse, a member's former spouse who is an alternate payee under an approved domestic relations order, a participant's former spouse who is an alternate payee under an approved domestic relations order and anyone else authorized under the IRC and the plan terms approved by the board to have an eligible rollover distribution paid directly to an eligible retirement plan by way of a direct rollover. For purposes of this paragraph, the term "eligible

rollover distribution" has the meaning given such term by IRC § 402(f)(2)(A), and "eligible retirement plan" has the meaning given such term by IRC § 402(c)(8)(B), except that a qualified trust shall be considered an eligible retirement plan only if it accepts the distributee's eligible rollover distribution; however, in the case of an eligible rollover distribution to a surviving spouse, an eligible retirement plan is an "individual retirement account" or an "individual retirement annuity" as those terms are defined in IRC § 408(a) and (b).

(b) Authorized payments from fund.--The board shall be authorized to pay from the fund:

(1) In the case of a member or participant who is terminating service, the amount determined after certification by the head of the department that the member or participant is so obligated, and after review and approval by the department or agency's legal representative or upon receipt of an assignment from the member or participant in the amount so certified[.], except that no payment shall be made from the individual investment account of a participant until the participant otherwise applies for and receives a distribution and shall not exceed the amount of the distribution.

(2) In the case of a loan to a member the amount of the loan and any fine or interest due thereon to the credit union except 5% of the total amount due which is to be retained in the fund as a collection fee:

(i) if the member obtaining the loan shall have been in default in required payments for a period of not less than two years; or

(ii) at such time as the Department of Banking shall require the credit union to charge the amount of the loan against the reserve fund of such credit union.

Any member who shall have pledged such rights as security for a loan from a credit union and, on whose behalf the board shall have made any payment by reason of that member's default, may not thereafter pledge or assign such rights to a credit union.

(3) In the case of a participant whose former spouse is an alternate payee of an equitable distribution of marital assets under an approved domestic relations order, a lump sum of the alternate payee's interest in the participant's accumulated total defined contributions. This paragraph applies without regard to whether the participant has not terminated, is terminating or has terminated State service.

Section 36. Section 5953.1(a) introductory paragraph and (1), (b), (c) and (d) of Title 71 are amended and the section is amended by adding a subsection to read:

§ 5953.1. Approval of domestic relations orders.

(a) Certification regarding members.--A domestic relations order pertaining to a member of the system shall be certified as an approved domestic relations order by the secretary of the board, or his designated representative, only if that order meets all of the following:

(1) Requires the system to provide any type or form of benefit or any option applicable to members already provided under this part.

* * *

(a.1) Certification regarding participants.--A domestic relations order pertaining to a participant shall be certified as an approved domestic relations order by the secretary of the board or his designated representative only if that order meets all of the following:

(1) Does not require the plan to provide any type or form of benefit or any option applicable to members of the system or participants in the plan.

(2) Does not require the segregation of the alternate payee's share of the participant's individual investment account into a subaccount or newly established individual account titled in the name of the alternate payee.

(3) Does not require the plan to recover or distribute any funds which were distributed to the participant or at the participant's direction prior to the approval of the domestic relations order by the secretary of the board or his designated representative.

(4) Requires the plan to pay to the alternate payee no more than the lesser of the amount of the participant's individual investment account specified by the domestic relations order or the amount of the participant's individual investment account as of the date of the transfer of the alternate payee's share to the alternate payee.

(5) States that the plan shall not be required to recoup or make good for losses in value to the participant's individual investment account incurred between the date of the valuation of the account used for equitable distribution purposes and the date of distribution to the alternate payee.

(6) Specifies the amount or percentage of the participant's individual investment account to be paid to the alternate payee and the date upon which such valuation is based.

(7) Specifies the name and last known mailing address, if any, of the participant and the name and last known mailing address of each alternate payee covered by the order and states that it is the responsibility of each alternate payee to keep a current mailing address on file with the plan.

(8) Does not grant an alternate payee the rights, privileges or options available to a participant.

(9) Requires the participant to execute an authorization allowing each alternate payee to monitor the participant's compliance with the terms of the domestic relations order through access to information concerning the participant maintained by the plan. Any authorization granted pursuant to this section shall be construed only as an authorization for the alternate payee to receive information concerning the participant which relates to the administration, calculation and payment of the alternate payee's share of the participant's account and not as an authorization to exercise the rights afforded to participants or obtain information which is not related to the administration, calculation and payment of alternate payee's share of the participant's individual investment account.

(10) In the case of a participant who has not yet begun to receive distributions as of the date the domestic relations order is approved by the secretary of the board or his designated representative, requires the immediate distribution of the alternate payee's share of the participant's individual investment account, which may be by direct payment, eligible rollover or trustee-to-trustee transfer to another eligible plan or qualified account owned

by the alternate payee.

(11) In the case of a participant who is currently receiving distributions from the trust as of the date the domestic relations order is approved by the secretary of the board or his designated representative, the domestic relations order may not order the board to pay the alternate payee more than the balance available in the participant's individual investment account as of the date the order is approved or require that distributions continue to the alternate payee after the death of the participant and final settlement of the participant's individual investment account.

(b) Determination by secretary.--Within a reasonable period after receipt of a domestic relations order, the secretary of the board, or his designated representative, shall determine whether this order is an approved domestic relations order and notify the member or participant and each alternate payee of this determination. Notwithstanding any other provision of law, the exclusive remedy of any member, participant or alternate payee aggrieved by a decision of the secretary of the board, or his designated representative, shall be the right to an adjudication by the board under 2 Pa.C.S. Ch. 5 Subch. A (relating to practice and procedure) with appeal therefrom to the Commonwealth Court under 2 Pa.C.S. Ch. 7 (relating to judicial review) and 42 Pa.C.S. § 763(a)(1) (relating to direct appeals from government agencies).

(c) Other orders.--The requirements for approval identified in [subsection (a)] subsections (a) and (a.1) shall not apply to any domestic relations order which is an order [for] of support as the term is defined at 23 Pa.C.S. § 4302 (relating to definitions) or an order for the enforcement of arrearages as provided in 23 Pa.C.S. § 3703 (relating to enforcement of arrearages). These orders shall be approved to the extent that they do not attach moneys in excess of the limits on attachments as established by the laws of the United States and this Commonwealth[.], require distributions of benefits in a manner which would violate the laws of the United States, any other state or this Commonwealth or require the distribution of funds for support or enforcement of arrearages against any participant who is not receiving distributions from the plan at the time such order is entered.

(d) Obligation discharged.--Only the requirements of this part and any regulations promulgated hereunder shall be used to govern the approval or disapproval of a domestic relations order. Therefore, if the secretary of the board, or his designated representative, acts in accordance with the provisions of this part and any promulgated regulations in approving or disapproving a domestic relations order, then the obligations of the system or the plan with respect to such approval or disapproval shall be discharged.

Section 37. Sections 5953.2, 5953.3 and 5953.4(a) of Title 71 are amended to read:

§ 5953.2. Irrevocable beneficiary.

Notwithstanding any other provision of this part, a domestic relations order may provide for an irrevocable beneficiary. A domestic relations order requiring the nomination of an irrevocable beneficiary shall be deemed to be one that requires a member or participant to nominate an alternate payee as a beneficiary and that prohibits the removal or change of that beneficiary without approval of a court of competent jurisdiction, except by operation of law. Such a domestic relations order may be certified as an approved domestic relations order by the secretary of the board, or his designated representative, after the member <u>or participant</u> makes such nomination, in which case the irrevocable beneficiary so ordered by the court cannot be changed by the member <u>or participant</u> without approval by the court.

§ 5953.3. Irrevocable survivor annuitant.

Notwithstanding any other provisions of this part, a domestic relations order <u>pertaining to a member</u> may provide for an irrevocable survivor annuitant. A domestic relations order requiring the designation of an irrevocable survivor annuitant shall be deemed to be one that requires a member to designate an alternate payee as a survivor annuitant and that prohibits the removal or change of that survivor annuitant without approval of a court of competent jurisdiction, except by operation of law. Such a domestic relations order may be certified as an approved domestic relations order by the secretary of the board, or his designated representative, in which case the irrevocable survivor annuitant so ordered by the court cannot be changed by the member without approval by the court. A person ineligible to be designated as a survivor annuitant may not be designated as an irrevocable survivor annuitant.

§ 5953.4. Amendment of approved domestic relations orders.

(a) Deceased alternate payee.--In the event that the alternate payee predeceases the member <u>or the participant</u> and there are benefits payable to the alternate payee, the divorce court may amend the approved domestic relations order to substitute a person for the deceased alternate payee to receive any benefits payable to the deceased alternate payee.

* * *

Section 38. Title 71 is amended by adding a section to read:

§ 5953.6. Irrevocable successor payee.

Notwithstanding any other provisions of this part, a domestic relations order pertaining to a participant may provide for an irrevocable successor payee only if the participant is receiving a payment pursuant to a payment option provided by the board that allows for a successor payee. A domestic relations order requiring the designation of an irrevocable successor payee shall be deemed to be one that requires a participant who is receiving payments from an annuity or other distribution option to designate an alternate payee as a successor payee and that prohibits the removal or change of that successor payee without approval of a court of competent jurisdiction, except by operation of law. Such a domestic relations order may be certified as an approved domestic relations order by the secretary of the board or his designated representative, in which case the irrevocable successor payee so ordered by the court shall not be changed by the participant without approval by the court. A person ineligible to be designated as a successor payee shall not be designated as an irrevocable successor payee. A court shall not name an irrevocable successor payee if the alternate payee is eligible to receive a lump sum distribution of the alternate payee's portion of the marital portion of the pension benefit.

Section 39. Sections 5954 and 5955 of Title 71 are amended to read:

§ 5954. Fraud and adjustment of errors.

(a) Penalty for fraud.--Any person who shall knowingly make any false statement or shall falsify or permit to be falsified any record or records of this system <u>or plan</u> in any attempt to defraud the system <u>or plan</u> as a result of such act shall be guilty of a misdemeanor of the second degree.

(b) Adjustment of errors.--Should any change or mistake in records result in any member, <u>participant,</u> beneficiary [or]<u>,</u> survivor annuitant <u>or successor payee</u> receiving from the system <u>or plan</u> more or less than he would have been entitled to receive had the records been correct, then regardless of the intentional or unintentional nature of the error and upon the discovery of such error, the board shall correct the error and <u>if the error affected contributions to or payments from the system, then</u> so far as practicable shall adjust the payments which may be made for and to such person in such a manner that the actuarial equivalent of the benefit to which he was correctly entitled shall be paid. <u>If the error affected contributions to or payments from the plan, then the board shall take such action as shall be provided for in the plan document.</u>

§ 5955. Construction of part.

<u>(a) Exclusive source of rights and benefits.--</u>Regardless of any other provision of law, pension <u>and benefit</u> rights of State employees shall be determined solely by this part or any amendment thereto, and no collective bargaining agreement nor any arbitration award between the Commonwealth and [its] <u>other employers and their</u> employees or their collective bargaining representatives shall be construed to change any of the provisions herein, to require the board to administer pension or retirement benefits not set forth in this part or <u>not established by the board in the plan document, to require the board to modify, amend or change any of the terms and provisions of the plan document</u>, or otherwise require action by any other

government body pertaining to pension or retirement benefits or rights of State employees. Notwithstanding the foregoing, any pension or retirement benefits or rights previously so established by or as a result of an arbitration award shall remain in effect after the expiration of the current collective bargaining agreement between the State employees so affected and the Commonwealth until the expiration of each of the collective bargaining agreements in effect on January 1, 2011, at which time the classes of membership and resulting member contribution rates and contributions for creditable nonstate service, eligibility for vesting, withdrawal and superannuation annuities, optional modification of annuities and other terms and conditions related to class of membership shall be as determined by this part for employees covered by those and successor collective bargaining agreements. For purposes of administering this part, for those State employees who are members of each such collective bargaining unit, the date January 1, 2011, contained in this part, except in this section, shall be replaced with the date of the day immediately following the expiration of each such collective bargaining agreement. The provisions of this part insofar as they are the same as those of existing law are intended as a continuation of such laws and not as new enactments. The provisions of this part shall not affect any act done, liability incurred, right accrued or vested, or any suit or prosecution pending or to be instituted to enforce any right or penalty or to punish any offense under the authority of any repealed laws.

(b) State employee on leave without pay.--As used within this part, the term "inactive member on leave without pay" does not include a combined service employee who is an inactive participant on leave without pay.

(c) Officer or member of the Pennsylvania State Police.--The following shall apply:

(1) Notwithstanding a provision of subsection (a) or section 12.1 of the act of November 23, 2010 (P.L.1269, No.120) regarding the continued effectiveness of pension or retirement benefits or rights previously established by or as a result of a binding arbitration award issued before July 1, 1989, pursuant to the act of June 24, 1968 (P.L.237, No.111), referred to as the Policemen and Firemen Collective Bargaining Act, and implemented by the board, the pension or retirement benefits or rights of a State employee who on January 1, 2015, is a current or former State police officer, shall be a provided in this part as if the binding arbitration award was not issued, except as provided under this subsection.

(2) A State employee who on January 1, 2015, is a current or former State police officer shall be eligible to accrue benefits pursuant to the binding arbitration as implemented by the board until the termination of State service or election to be a participant in the plan. Any State service performed after a termination of State service or election to participate in the plan shall not accrue benefits under the binding arbitration award or in the system, but may, if eligible, result in participation in the plan.

(3) A State employee who on January 1, 2015, is not a current or former State police officer who subsequently becomes a State police officer shall be eligible to accrue benefits pursuant to the binding arbitration award until the

termination of State service or election to be a participant in the plan, provided that the State employee has not terminated State service or elected to be a participant in the plan prior to becoming a State police officer.

(4) An individual who is not a State employee on January 1, 2015, or who is a State employee but not a member of the system on January 1, 2015, who subsequently becomes a State police officer shall not be eligible to accrue benefits pursuant to the binding arbitration award, but instead shall be eligible to be a participant in the plan. This paragraph shall apply without regard to prior service as a State police officer or whether service was performed or benefits accrued under this binding arbitration award.

(5) To the extent that any officer or member of the Pennsylvania State Police who is eligible to retire after June 30, 1989, as provided in a binding arbitration award issued before July 1, 1989, pursuant to the act of June 24, 1968 (P.L.237, No.111), referred to as the Policemen and Firemen Collective Bargaining Act, as implemented by the board with a benefit based on 50% of highest year salary upon accruing 20 or more years of credited State service or nonstate service in the system, or based on 75% of highest year salary upon accruing 25 or more years of credited State or nonstate service in the system, such eligibility shall be determined solely on service credited, compensation paid and contributions made as a member of the system. Service as a State police officer credited in the system shall not operate to prevent any State employee from being a participant in the plan for any State service that would otherwise result in participation in the plan. Any State service performed,

compensation paid and contributions made as a participant in the plan shall not be included in determining eligibility for and the amount of benefits provided from the system, provided however, that entitlement to actual receipt of benefits are subject to the provisions of this part regarding employment and termination as a State employee. Any benefit resulting from participation in the plan shall be in addition to any benefit a State police officer may be eligible to receive as a member of the system.

Section 40. Nothing in this act shall be construed or deemed to imply that the release or making public of any record, material or data described in 71 Pa.C.S. § 5902(e)(2) as not being a public record is a violation of the State Employees' Retirement Board's fiduciary duties.

Section 41. Notwithstanding any regulation promulgated by the State Employees' Retirement Board, application or interpretation of 71 Pa.C.S. Pt. XXV, or administrative practice to the contrary, a combined service employee's eligibility for a superannuation annuity or other rights and benefits based on attaining superannuation age or a superannuation score of 92 shall be determined by including only those eligibility points actually accrued.

Section 42. (a) Nothing in this act which amends or supplements provisions of 51 Pa.C.S. § 7306 or 71 Pa.C.S. Pt. XXV in relation to requirements:

(1) for qualification of the State Employees' Defined Contribution Plan as a qualified pension plan under the Internal Revenue Code of 1986 (Public Law 99-514, 26 U.S.C. § 1 et seq.) or compliance with 38 U.S.C. Ch. 43 (relating to employment and reemployment rights of members of the

uniformed services);

(2) for contributions to, participation in or benefits from the State Employees' Defined Contribution Plan or State Employees' Defined Contribution Trust; or

(3) for domestic relations orders regarding alternate payees of participants in the State Employees' Defined Contribution Plan;

nor any construction of 51 Pa.C.S. or 71 Pa.C.S. Pt. XXV, as so amended or supplemented, or any rules or regulations adopted under 51 Pa.C.S. or 71 Pa.C.S. Pt. XXV, or any term or provision of the State Employees' Defined Contribution Plan or State Employees' Defined Contribution Trust, whether established by statute or in the plan document or trust declaration, shall create in any member of the State Employees' Retirement System or participant in the State Employees' Defined Contribution Plan or in any other person claiming an interest in the account of any such member or participant a contractual right, either express or implied, in such provisions nor in any construction of 51 Pa.C.S. § 7306 or 71 Pa.C.S. Pt. XXV, as so amended or supplemented, or any rules or regulations adopted under 51 Pa.C.S. or 71 Pa.C.S. Pt. XXV. The provisions of 71 Pa.C.S. Pt. XXV shall remain subject to the Internal Revenue Code of 1986 and 38 U.S.C. Ch. 43 and regulations thereunder, and the General Assembly reserves to itself such further exercise of its legislative power to amend or supplement such provisions as may from time to time be required in order to maintain the qualification of such system as a qualified pension plan under section 401(a) and other applicable provisions of the Internal Revenue Code of 1986 and 38 U.S.C. Ch. 43.

(b) References in this act to the Internal Revenue Code of

1986 or 38 U.S.C. Ch. 43, or administrative regulations promulgated thereunder, are intended to include such laws and regulations in effect on the effective date of this act and as they may hereafter be amended or supplemented or supplanted by successor provisions.

Section 43. Nothing in this act shall be construed or deemed to imply that, but for the expressed applications of the limitations on benefits or other requirements under section 401(a) or other applicable provisions of the Internal Revenue Code of 1986 (Public Law 99-514, 26 U.S.C. § 401 et seq.), those limitations would not otherwise apply to such participants or to members of the State Employees' Retirement System and the benefits payable under 71 Pa.C.S. Pt. XXV.

Section 44. (a) Notwithstanding any provisions of this part to the contrary, no contributions or benefit related to the State Employees' Defined Contribution Plan shall be made or payable to the extent that such contributions or benefits exceed any limitation under section 415 of the Internal Revenue Code of 1986 (Public Law 99-514, 26 U.S.C. § 1 et seq.) as in effect with respect to governmental plans as such term is defined in section 414(d) of the Internal Revenue Code of 1986 on the date the contributions or benefit payment becomes effective. Any increase in any limitation under section 415 of the Internal Revenue Code of 1986 shall be applicable to all current and future participants.

(b) No future amendment of this part that increases contributions or benefits for active participants, inactive participants or participants receiving distributions shall be deemed by the rules of statutory construction or otherwise to provide for contributions or benefits in excess of any limitation, as adjusted or subsequently increased, provided for under section 415 of the Internal Revenue Code of 1986 unless specifically so provided by legislation. Notwithstanding this section, any future increase in benefits for any participants in the plan are intended to be applicable to the fullest extent allowed by law and this section authorizes any such increases in limitations or allowable benefits.

Section 45. The amendment of 71 Pa.C.S. Pt. XXV relating to the establishment of and participation in the State Employees' Defined Contribution Plan shall apply to all current and former members of the State Employees' Retirement System who have returned to State service on or after January 1, 2015, after a termination of State service, without regard to whether the termination occurred before or after January 1, 2015, and without regard to whether the State employee was an annuitant, inactive member, vestee or special vestee or withdrew accumulated deductions during the period of termination. A terminated State employee who returns to State service on or after January 1, 2015, does so with the expressed and specific understanding that he is subject to and accepts the terms and provisions of 71 Pa.C.S. Pt. XXV as they exist regarding participation in the plan or membership in the system on the effective date of reemployment, including, but not limited to, benefit formulas and accrual rates, eligibility for annuities and distributions, contribution rates, definitions, purchase of creditable school, nonschool, State and nonstate service provisions and actuarial and funding assumptions.

Section 46. Nothing in this act shall be construed or deemed to imply that any calculation or actuarial method used by the State Employees' Retirement Board, its actuaries or the State

Employees' Retirement System was not in accordance with the provisions of the State Employees' Retirement Code or other applicable law prior to the effective date of this section.

Section 47. (a) Notwithstanding any other provision of law, any change in accrued liability of the State Employees' Retirement System created by this act as a result of changes in benefits shall be funded in equal dollar installments over a period of 20 years beginning July 1, 2014. Any change in accrued liability as a result of the amendment of 71 Pa.C.S. §§ 5507 and 5508 or the addition of 71 Pa.C.S. §§ 5507.1 and 5508.1 shall be funded in equal dollar installments over a period of 30 years beginning July 1, 2014. Payments required to fund any changes in accrued liability resulting from this act shall be subject to any limits imposed by this act on employer contributions to the State Employees' Retirement System, and shall not be subject to re-amortization for 30 years under 71 Pa.C.S. § 5508.1(c). For purposes of 71 Pa.C.S. §§ 5501.2, 5507 and 5508, any such changes shall not be considered to be costs added by legislation.

(b) For purposes of this section, the provisions of 71 Pa.C.S. §§ 5507.1(b)(3) and 5508.1(c)(2) and (d) shall apply.

Section 48. Nothing in this act shall be construed or deemed to imply that any interpretation or application of the provisions of 71 Pa.C.S. Pt. XXV or benefits available to members of the State Employees' Retirement System was not in accordance with the provisions of 71 Pa.C.S. Pt. XXV or other applicable law, including the Internal Revenue Code of 1986 (Public Law 99-514, 26 U.S.C. § 1 et seq.) and 38 U.S.C. Ch. 43 (relating to employment and reemployment rights of members of the uniformed services), prior to the effective date of this section.

Section 49. This act shall be construed and administered in such a manner that the State Employees' Retirement System and the State Employees' Defined Contribution Plan will satisfy the requirements necessary to qualify as a qualified pension plan under section 401(a) and other applicable provisions of the Internal Revenue Code of 1986 (Public Law 99-514, 26 U.S.C. § 1 et seq.) and 38 U.S.C. Ch. 43 (relating to employment and reemployment rights of members of the uniformed services). The rules, regulations and procedures adopted and promulgated by the State Employees' Retirement Board and the terms and conditions of the plan document and trust declaration adopted by the State Employees' Retirement Board may include those necessary to accomplish the purpose of this section.

Section 50. If the application of any provision of this act to any person is held invalid, the invalidity shall not affect the application of this act to any other person, but the entire act shall be invalid as to the person to whom part of it was invalid. In the event that a State employee's participation in the State Employees' Defined Contribution Plan is declared invalid, the affected State employee shall return to the State Employees' Defined Contribution Trust any distributions and shall be granted the status and service credit in the State Employees' Retirement System and shall be required to make all contributions to the State Employees' Retirement Fund as if this act had not been enacted. The affected State employee's accumulated mandatory participant contributions and accumulated voluntary contributions shall be transferred to the affected employee's member savings account to the extent necessary to fund that account with the member contributions and interest that would have been standing to the member's account had this act not been enacted. Any remaining balance shall be refunded to the State employee, who shall be responsible for paying to the fund in a manner and time determined by the State Employees' Retirement Board any additional funds required if the accumulated mandatory participant contributions and accumulated voluntary contributions were not sufficient. The accumulated employer defined contributions shall be transferred to the State accumulation account and no further amount shall be due from the employer or refund paid.

Section 51. This act shall take effect immediately.

AMENDMENTS TO HOUSE BILL NO. 1353

Sponsor:

Printer's No. 1847

Amend Bill, page 27, line 3, by inserting after "5705(a)(4)"

<u>or (a.1)</u>

Amend Bill, page 91, line 26, by striking out "and 5704(c)" and inserting

, 5704(c) and 5705(a)

Amend Bill, page 94, by inserting between lines 12 and 13

§ 5705. Member's options.

(a) General rule.--Any special vestee who has attained superannuation age, any vestee who does not have Class A-3 or Class A-4 service credit having five or more eligibility points for service other than Class T-E or Class T-F service in the Public School Employees' Retirement System, or vestee who has Class A-3 or Class A-4 service credit having ten or more eligibility points, any member with Class G, Class H, Class I, Class J, Class K, Class L, Class M or Class N service having five or more eligibility points or any other eligible member upon termination of State service who has not withdrawn his total accumulated deductions as provided in section 5701 (relating to return of total accumulated deductions) may apply for and elect to receive either a maximum single life annuity, as calculated in accordance with the provisions of section 5702 (relating to maximum single life annuity), or a reduced annuity certified by the actuary to be actuarially equivalent to the maximum single life annuity <u>payable after reduction under subsection (a.1)</u> and in accordance with one of the following options; except that no member shall elect an annuity payable to one or more survivor annuitants other than his spouse or alternate payee of such a magnitude that the present value of the annuity payable to him for life plus any lump sum payment <u>under this subsection and subsection (a.1)</u> he may have elected to receive is less than 50% of the present value of his maximum single life annuity <u>before reduction under subsection (a.1)</u>:

(1) Option 1.--A life annuity to the member with a guaranteed total payment equal to the present value of the maximum single life annuity on the effective date of

retirement with the provision that, if, at his death, he has received less than such present value, the unpaid balance shall be payable to his beneficiary.

(2) Option 2.--A joint and survivor annuity payable during the lifetime of the member with the full amount of such annuity payable thereafter to his survivor annuitant, if living at his death.

(3) Option 3.--A joint and fifty percent (50%) survivor annuity payable during the lifetime of the member with one-half of such annuity payable thereafter to his survivor annuitant, if living at his death.

(4) Option 4.--Some other benefit which shall be certified by the actuary to be actuarially equivalent to the maximum single life annuity, subject to the following restrictions:

(i) any annuity shall be payable without reduction during the lifetime of the member;

(ii) the sum of all annuities payable to the designated survivor annuitants shall not be greater than one and one-half times the annuity payable to the member; and

(iii) a portion of the benefit may be payable as a lump sum, except that such lump sum payment shall not exceed an amount equal to the total accumulated deductions standing to the credit of the member that are not the result of contributions and statutory interest made or credited as a result of Class A-3 or Class A-4 service. The balance of the present value of the maximum single life annuity adjusted in accordance with section 5702(b) shall be paid in the form of an annuity with a guaranteed total payment, a single life annuity, or a joint and survivor annuity or any combination thereof but subject to the restrictions of subparagraphs (i) and (ii) under this option. If a member's effective date of retirement is on or after January 1, 2015, then the portion of the benefit payable under this subparagraph shall be further limited to the total accumulated deductions standing to the credit of the member on December 31, 2014, that are not the result of contributions and statutory interest made or credited as a result of Class A-3 or Class A-4 service, plus any statutory interest credited on those accumulated deductions before the effective date of retirement.

(a.1) Additional lump sum withdrawal.--The following shall apply:

(1) On or after January 1, 2015, if a member has elected to have the full amount allowed under subsection (a)(4)(iii) paid in lump sum, then the member may elect to receive an additional amount payable in a lump sum at the same time as the payment elected under subsection (a)(4)(iii).

(2) The additional amount payable in a lump sum may not

exceed the amount equal to the excess of the total accumulated deductions standing to the credit of the member on the effective date of retirement that are not the result of contributions and statutory interest made or credited as a result of Class A-3 or Class A-4 service over the amount payable under subsection (a)(4)(iii).

(3) If a member elects to be paid an additional lump sum amount under this subsection, then the maximum single life annuity calculated under section 5702 and payable under subsection (a) shall be reduced by the additional amount withdrawn divided by the cost of a dollar annuity on the effective date of retirement computed on the basis of the annual interest rate adopted for that fiscal year by the board for the calculation of the accrued liability contribution rate under section 5508.1(c) (relating to actuarial cost method for fiscal years beginning July 1, 2015, or later) and the mortality tables adopted by the board for the determination of actuarially equivalent benefits under this part. The reduction in the maximum single life annuity under this subsection shall apply before the election and calculation of any reduced annuities payable under subsection (a).

* * *

Amend Bill, page 105, line 30, by striking out "Sections" and inserting

Section

Amend Bill, page 106, line 1, by inserting after "(k),"

(l),

Amend Bill, page 106, lines 1 through 3, by striking out "and" in line 1 and all of lines 2 and 3 and inserting

of Title 71, amended October 24, 2012 (P.L.1436, No.181), are amended and the section is amended by adding a subsection to read:

Amend Bill, page 113, line 28, by striking out all of said line and inserting

(l) Member contributions.--The board shall cause all pickup contributions made on behalf of a member to be credited to the account of the member and credit to his account any other payment made by such member, including, but not limited to, amounts collected by the Public School Employees' Retirement System for the reinstatement of previous State service or creditable nonstate service and amounts paid to return benefits paid after the date of return to State service or entering school service representing lump sum payments made pursuant to section 5705(a)(4)(iii) or (a.1) (relating to member's options) and member's annuity payments, but not including other benefits returned pursuant to section 5706(a.2) or (a.3) (relating to termination of annuities), and shall pay all such amounts into the fund.

Amend Bill, page 115, by inserting between lines 2 and 3

Section 30.1. Section 5903 heading and (a) of Title 71 are amended and the section is amended by adding a subsection to read:

Amend Bill, page 120, by inserting between lines 13 and 14

Section 32.1. Section 5905.1(a) and (b)(2) and (3) of Title 71 are amended to read:

§ 5905.1. Installment payments of accumulated deductions.

(a) General rule.--Notwithstanding any other provision of this part, whenever a member elects to withdraw his total accumulated deductions pursuant to section 5311(a) (relating to eligibility for refunds) or 5701 (relating to return of total accumulated deductions) or elects to receive a portion of his benefit payable as a lump sum pursuant to section 5705(a)(4)(iii) or (a.1) (relating to member's options), the member may elect to receive the amount in not more than four installments.

(b) Payment of first installment.--The payment of the first installment shall be made in the amount and within seven days of the date specified by the member, except as follows:

* * *

(2) In the case of an election as provided in section 5705(a)(4)(iii) or (a.1) by a member terminating service within 60 days prior to the end of a calendar year and upon receipt of all required data from the head of the department and, if the member has Class G, Class H, Class I, Class J, Class K, Class L, Class M or Class N service, any data required from the county retirement system or pension plan to which the member was a contributor before being transferred to State employment, the board shall not be required to pay the first installment prior to 21 days after the later of the filing of the application and the receipt of the data or the date of termination of service, but, unless otherwise directed by the member, the payment shall be made no later than 45 days after the filing of the application and the receipt of the data or the date of termination of service, whichever is later.

(3) In the case of an election as provided in section 5705(a)(4)(iii) or (a.1) by a member who is not terminating service within 60 days prior to the end of a calendar year and upon receipt of all required data from the head of the department and, if the member has Class G, Class H, Class I, Class J, Class K, Class L, Class M or Class N service, any

data required from the county retirement system or pension plan to which the member was a contributor before being transferred to State employment, the board shall not be required to pay the first installment prior to 45 days after the filing of the application and the receipt of the data or the date of termination of service, whichever is later.

* * *

AMENDMENTS TO HOUSE BILL NO. 1353

Sponsor:

Printer's No. 1847

Amend Bill, page 8, lines 9 through 30; page 9, lines 1 through 10, by striking out all of said lines on said pages and inserting

"Final average salary." [The]

(1) For members with an effective date of retirement before January 1, 2015, and for purposes of calculating standard single life annuities resulting from credited service other than post-January 2015 service regardless of the effective date of retirement, the highest average compensation received as a member during any three nonoverlapping periods of four consecutive calendar quarters during which the member was a State employee, with the compensation for part-time service being annualized on the basis of the fractional portion of the year for which credit is received; except if the employee was not a member for three nonoverlapping periods of four consecutive calendar quarters, the total compensation received as a member, annualized in the case of part-time service, divided by the number of nonoverlapping periods of four consecutive calendar quarters of membership[;].

(2) For members with an effective date of retirement on or after January 1, 2015, for purposes of calculating standard single life annuities resulting from post-January 2015 service, the highest average compensation, as adjusted under section 5506.3 (relating to adjustment of compensation for calculating final average salary on or after January 1, 2015), received as a member of any class of service during any five calendar years during which the member was a State employee, except if the employee was not an active member during five calendar years, the average of the number of calendar years during which the employee was an active member.

(3) For all members and for the calculation of all standard single life annuities without regard to class of membership and credited service, in the case of a member with multiple service, the final average salary shall be determined on the basis of the compensation received by him

as a [State employee] member of the system or as a school employee, other than as a participant in the School Employees' Defined Contribution Plan, or both; in the case of a member with Class A-3 or Class A-4 service and service in one or more other classes of service, the final average salary shall be determined on the basis of the compensation received by him in all classes of State service credited in the system; and, in the case of a member who first became a member on or after January 1, 1996, the final average salary shall be determined as hereinabove provided but subject to the application of the provisions of section 5506.1(a) (relating to annual compensation limit under IRC § 401(a)(17)). Final average salary shall be determined by including in compensation payments deemed to have been made to a member reemployed from USERRA leave to the extent member contributions have been made as provided in section 5302(f)(2) (relating to credited State service) and payments made to a member on leave of absence under 51 Pa.C.S. § 4102 (relating to leaves of absence for certain government employees) as provided in section 5302(f)(6).

Amend Bill, page 11, by inserting between lines 19 and 20

"Post-January 2015 service." All previously uncredited State service and creditable nonstate service that is first credited on or after January 1, 2015, and all State service performed on or after January 1, 2015, except that any State service credited by a member who is reemployed from USERRA leave who has made the member contributions under section 5302(f) (relating to credited State service) to receive State service credit shall not be post-January 2015 service if credited for a period of USERRA leave performed before January 1, 2015.

Amend Bill, page 74, by inserting between lines 10 and 11

Section 19.1. Title 71 is amended by adding a section to read:

§ 5506.3. Adjustment of compensation for calculating final average salary on or after January 1, 2015.

For purposes of calculating final average salary for the determination of standard single life annuities resulting from post-January 2015 service, the compensation received each calendar year as a member of the system or, if a multiple service member, received as both a member of the system and as a school employee and member of the Public School Employees' Retirement System shall be adjusted first by annualizing the compensation received for any part-time service or for any partial year of credit on the basis of the fractional portion of the year for which credit is received. After annualization, the amount of compensation in any calendar year shall be further adjusted downward if necessary so as not to exceed 110% of the average of the annualized compensation of the four immediately previous calendar years in which the State employee was an active member, or, if a multiple service member, an active member of the system or Public School Employees' Retirement System. If for any calendar year there are one or more, but less than four, preceding calendar years in which the State employee was an active member of the system or, if a multiple service member, also an active member of the Public School Employees' Retirement System, then the adjusted compensation may not exceed 110% of the average of the annualized compensation of the number of preceding years of active membership in the system or the Public School Employees' Retirement System.

Amend Bill, page 91, line 26, by inserting after "5704(c) "

and (f)

Amend Bill, page 94, by inserting between lines 7 and 8

(f) Supplement for service connected disability.--

(1) If a member has been found to be eligible for a disability annuity and if the disability has been found to be a service connected disability and if the member is receiving workers' compensation payments for other than medical benefits, such member shall receive a supplement equal to [70% of his final average salary] the amount determined under paragraph (2) less the sum of the annuity as determined under subsection (a) and any payments paid or payable on account of such disability under the act of June 2, 1915 (P.L.736, No.338), known as the Workers' Compensation Act, the act of June 21, 1939 (P.L.566, No.284), known as The Pennsylvania Occupational Disease Act, and the Social Security Act (49 Stat. 620, 42 U.S.C. § 301 et seq.). Such supplement shall continue as long as he is determined to be disabled and is receiving workers' compensation payments for other than medical benefits on account of his service connected disability in accordance with the Workers' Compensation Act or The Pennsylvania Occupational Disease Act. If the member has received a lump sum workers' compensation payment in lieu of future weekly compensation payments, the length in weeks and calculation of the service connected disability supplement shall be determined by dividing the lump sum payment by the average weekly wage as determined by the Workers' Compensation Board.

(2) For a member who does not have post-January 2015 service, the amount to be used to determine eligibility for the supplement under paragraph (1) shall be 70% of his final average salary. For a member who has post-January 2015 service, the amount to be used to determine eligibility for the supplement under paragraph (1) shall be calculated according to the following formula:

$$A = .7\left[\left(\frac{Y^{W}}{Y^{T}} \text{ multiplied by } FAS^{W}\right) + \left(\frac{Y^{XYZ}}{Y^{T}} \text{ multiplied by } FAS^{XYZ}\right)\right]$$

(3) The following apply to the formula in paragraph (2):

(i) A equals the amount used to determine the supplement;

(ii) Y^T equals total years of credited service;

(iii) Y^W equals years of credited service that are not post-January 2015 service;

(iv) FAS^W equals final average salary calculated for credited service other than post-January 2015 service;

(v) Y^{XYZ} equals years of service credited as post-January 2015 service; and

(vi) FAS^{XYZ} equals final average salary calculated for service credited as post-January 2015 service.

* * *

Amend Bill, page 113, line 15, by inserting after "age"

, final average salary calculations

Amend Bill, page 150, line 14, by striking out "a" and inserting

as

Amend Bill, page 150, lines 17 through 30; page 151, lines 1 through 4, by striking out all of said lines on said pages and inserting

(2) A State employee who meets the following shall be eligible to receive the maximum single life annuity, before optional modification under section 5705 (relating to member's options), that the State employee would have been eligible to receive if this subsection not been enacted:

(i) Is a current or former State police officer.

(ii) Has 20 or more qualifying eligibility points on or before December 31, 2014.

(iii) Terminates State service.

(3) (i) A State employee who on December 31, 2014, is a current or former State police officer who has less than 20 qualifying eligibility points and who terminates State service with 20 or more qualifying eligibility points shall be eligible to receive a maximum single life annuity, before optional modification under section 5705.

(ii) The maximum single life annuity under subparagraph (i) shall be calculated with the benefit provided under section 5702(a)(1) replaced by an annuity calculated according to the formula specified in this subparagraph and explained by subparagraph (iii):

(A) Divide:

(I) Y^W; by

(II) Y^T.

(B) Multiply:

(I) the quotient under clause (A); by

(II) S^H.

(C) Multiply:

(I) the product under clause (B); by

(II) P.

(D) Subtract:

(I) Y^W; from

(II) Y^T.

(E) Divide:

(I) the difference under clause (D); by

(II) Y^T.

(F) Multiply:

(I) the quotient under clause (E); by

(II) P.

(G) Multiply:

(I) the product under clause (F); by

(II) FAS.

(H) Add:

(I) the product under clause (C); to

(II) the product under clause (G).

(iii) For the purposes of subparagraph (ii), the following shall apply:

(A) P shall equal:

(I) .5 if the member has 20 but less than 25 qualifying eligibility points; or

(II) .75 if the member has 25 or more qualifying eligibility points.

(B) Y^T shall equal:

(I) 20 if the member has 20 but less than 25 qualifying eligibility points; or

(II) 25 if the member has 25 or more qualifying eligibility points.

(C) Y^W shall equal years of credited service that are not post-January 2015 service.

(D) S^H shall equal the member's highest year compensation excluding the year in which the member terminates.

(E) FAS shall equal final average salary calculated for service credited as post-January 2015 service.

Amend Bill, page 151, line 16, by inserting after "1989, "

with benefits in whole or in part

Amend Bill, page 152, by inserting between lines 9 and 10

(6) For the purposes of this subsection, the term "qualifying eligibility points" shall mean eligibility points as a result of State service, nonstate service or being

reemployed from USERRA leave.

COMMONWEALTH OF PENNSYLVANIA
GOVERNOR'S OFFICE
HARRISBURG

CHARLES B. ZOGBY
SECRETARY
OFFICE OF THE BUDGET

June 21, 2013

Mr. James L. McAneny, Executive Director
Public Employee Retirement Commission
Room 510, Finance Building
Harrisburg, PA 17105-1429

Dear Mr. McAneny:

The purpose of this letter is to officially transmit all actuarial analyses of Governor Corbett's pension reform plan, as well as all related commentary from the public pension plans. My hope is that you will find this information and material helpful in your review of the proposals.

As you will note, there are differing actuarial opinions regarding the Governor's plan. These are tied to differences in the assumptions made by the plans actuaries with regard to the assumed rate of investment return, the amortization period and methodology to be used in future years, population projections, and the assumptions related to part-time normal costs. Please refer to the Milliman letter of June 18, 2013 for a comprehensive discussion on these issues.

If you have any questions or comments, please do not hesitate to contact me.

Sincerely,

Charles B. Zogby

Attachments:

1. June 18, 2013 Milliman Actuarial Analysis
2. May 28, 2013 Milliman Actuarial Analysis
3. March 18, 2013 Milliman Actuarial Analysis
4. February 22, 2013 Milliman Cost Reform Summary SERS
    a. Baseline
    b. DC Plan For Future Hires – No change in collars
    c. DC Plan For Future Hires – w/adjustment to collars
    d. Governor's Proposed Reforms

Attachment 1

Milliman

1550 Liberty Ridge Drive
Suite 200
Wayne, PA 19087-5572

Tel +1 610 687.5644
Fax +1 610.687.4236

www.milliman.com

June 18, 2013

Mr. Charles Zogby
Secretary of the Budget
Commonwealth of Pennsylvania
Harrisburg, PA 17101

RE: Response to PSERS Actuarial Note on H.B. 1350, P.N. 1760 by Buck Consultants

Dear Mr. Zogby:

As requested, we have reviewed the Actuarial Notes on H.B. 1350, P.N. 1760 completed by the Buck Consultants ("Buck") regarding the Pennsylvania Public School Employees' Retirement System ("PSERS") dated May 28, 2013 and June 11, 2013 as well as an additional letter also dated June 11, 2013. H.B. 1350 is the Governor's proposal on changes to benefits for future employees and current employees and to the contribution collars on which we have provided the Budget Office various cost analyses.

The differences between Milliman's and Buck's analyses include 1) the investment return assumption, 2) amortization period and methodology to be used in future years, 3) population projections, and 4) development of part-time normal cost rate.

<u>Investment Return Assumption</u>

Similar to the Hay Group's ("Hay") analysis of the impact of H.B. 1350 on the Pennsylvania State Employees' Retirement System ("SERS"), Buck's June 11, 2013 letter indicates reductions in the assumed investment return assumption during the projection period due to the closing of the defined benefit systems. It is interesting to note that both Hay's and Buck's actuarial notes completed in 2010 on SB 566, PN 577, which also proposed to close the DB systems and place future employees in a defined contribution plan, did **NOT** include any discussion on a reduction of the investment return assumption during the projection period.

We believe that a reduction in the investment return assumption will be required in the future due to closing the systems and the increases in the liquidity requirements that will eventually result. In reviewing when such an event would occur, we used a specific metric, the liquidity ratio. The liquidity ratio is the benefit payments in the upcoming year as a percent of the market value of assets.

The following table displays the proposed investment return reductions by Buck and Hay as compared to the liquidity ratio (benefit payments as a percent of market value) from Milliman's projections.

Fiscal Year	Investment Return Assumption	Milliman's Projected Liquidity Ratio of Governor's Proposal
PSERS		
2014	7.5%	12.1%
2031	7.0%	10.3%
2036	6.5%	9.2%
2039	6.0%	9.0%
2041	5.5%	9.2%
2043	5.0%	9.4%
2045	4.5%	9.7%
SERS		
2014	7.5%	11.3%
2026	7.0%	12.4%
2036	6.5%	12.1%
2046	6.0%	10.9%

As shown in the chart, based on our projections of the liquidity ratio, the liquidity requirements of the closed fund ***during the projection period*** do not materially change. For PSERS, the expectation is that the liquidity requirement will be less as a percent of assets with SERS increasing slightly, but decreasing towards the end of the projection period.

The primary reason is that significant contributions are required to get the systems to full funded status by the end of the projection period. We are actuaries and not investment consultants. During the projection period, actions ***may*** be taken that will reduce the volatility of the fund. Reduction in volatility typically results in less expected investment return, and thus higher contributions. But this is a strategic decision that can be made at that time, which will reflect the funded status of the systems, and the Commonwealth's ability to handle volatile contributions. As the plans are closed, the contribution requirements will become a much smaller percentage of the overall state budget such that contribution volatility will have a lesser impact on future state budgets.

Excluding member contributions, current assets only cover 75.8% of retiree liability for PSERS and 94.3% for SERS. This means that future investment returns and employer contributions will first need to cover obligations for current retirees before any money could be set aside for future retirees. SERS addressed this issue with adopting a strategic asset allocation to handle liquidity needs. Both Buck's and Hay's analyses of H.B.1350 mention that investment returns will need to be reduced in the future to handle the liquidity needs if the plan is closed. Based on Milliman's projections, the liquidity needs in the next three decades are consistent with the current liquidity needs. Therefore, it seems that if SERS has adopted a strategic plan such that reductions in the investment return assumption are necessary in the future, the same logic would indicate that asset reallocation and resulting decreases in the investment return assumption would be necessary now. ***Reductions in expected investment returns increase DB plan contributions, but do not impact DC costs. This would increase the savings under the Governor's proposal.***

One other point - the shift to the DC plan is based on a desire to change the risk profile of the retirement systems from the Commonwealth's perspective. This change results in more stable contributions and less volatility due to investment markets and economic cycles. If investment returns are less than the assumed 7.5% each and every year of the projection, baseline costs will increase, but DC plan costs will remain level. Thus, the risk is slowly being transferred away from the Commonwealth. This reduction in risk is not captured through the current cost projections. To the extent that returns are volatile in the future, the Governor's proposal provides a higher probability that contribution requirements will be less volatile and more stable than the current baseline projections.

We believe Milliman's analysis provides a reasonable estimate of the reduction in employer contributions over the projection period due to the Governor's proposal.

Amortization Period and Methodology

We agree that the amortization period used for future changes in the actuarial liabilities should be reduced from 30 years for SERS and 24 years to PSERS. Hay suggests a reduction to 15 years by the end of the projection period and we believe this is reasonable. The amortization period will need to be monitored in future years and will be dependent on the systems' liquidity requirements and funded status at that time.

Buck also mentions concern about continuing to use the current level percent of pay method for a closed plan. As long as the payroll used for determining past service contributions is based on total defined benefit and defined contribution payroll, we believe no change is necessary at this time. Again, this methodology should be reviewed in future years and changes be made based on the systems' liquidity requirements and funded status at that time.

Please note that although the Governor's proposal is closing the defined benefit retirement systems, there will still be many, many years of managing the costs and requirements of the systems that will require changes in the future.

Population Projections

Buck has indicated that the expected future service accrual is expected to decline from 0.95 to 0.91 over the projection period. This expected future service accrual is a data element that can help identify part-time employees from fulltime employees. An accrual of less than 1 indicates a part-time employee. An average accrual of 0.95 indicates that the total population (part-time and fulltime employees) is expected to accrue 95% of a year of service.

Based on estimates from our projections, we can impute that this would lead to a 70% increase in the number of part-time employees by the end of projection period, which is approximately 30,000 employees. Therefore, Buck is estimating 30,000 less full-time employees. Note that these estimates are not precise as we do not have certain information on the current employees as well as the new entrant cohort used by Buck.

We are uncertain on the level of part-time employees versus fulltime employees that would occur in the future. However, we believe this indicator is a distinguishing characteristic that should be factored into the projections. Buck's method does not incorporate it as a distinguishing characteristic.

Part-time employees are assumed to cost less as a percentage of their actual pay in the defined benefit plan as they are expected to earn less service in the future and to retire at a later date than a similar aged fulltime employee. To the extent that part-time employees become fulltime employees in the future, current costs for part-time employees are understated. In a DC plan, all employees cost 4% of actual pay and when a member retires does not influence the cost of the retirement plan. This is one of the major differences between the DC plan and the DB plan; the cost of the DC plan is based on actual pay for that specific year whereas the cost of the DB plan is dependent on many factors including future hours worked, length of employment, life expectancy and future investment returns among others.

Part-time Normal Cost Rate

In their June 11 letter, the description Buck provides on the development of the normal cost rate sounds accurate from the stand point that they use actual salary as the denominator in developing the normal cost rate. However, in their April 30th letter they state that they use projected annualized salaries in the determination of the normal cost rate. Further, we received a previous email stating that the salary information included in the valuation reflects annualized salary.

We believe it would be beneficial to the reconciliation of results if Buck would provide separate normal cost rates based on the June 30, 2011 valuation (which is the valuation our projections are based upon) for part-time employees, fulltime employees and in total. We would request that they provide the present value of benefits and present value of salary at entry age for each of these groups such that we could compare to our results and reconcile any differences so that all parties are working from consistent information.

Basis for Analysis

These estimates are subject to the uncertainties of a regular actuarial valuation; the costs are inexact because they are based on assumptions that are themselves necessarily inexact, even though we consider them reasonable. Thus, the emerging costs may vary from those developed in the model to the extent actual experience differs from that projected by the actuarial assumptions. Actual costs and plan funding will vary with plan experience and will be affected by both economic and demographic factors. As such, the results developed in these models should be considered estimates of future trends and not accurate predictions of actual contributions.

This analysis was prepared exclusively for the Pennsylvania Office of the Budget for a specific and limited purpose. It is a complex, technical analysis that assumes a high level of knowledge concerning PSERS and SERS operations, and uses PSERS and SERS data, which Milliman has not audited. It is not for the use or benefit of any third party for any purpose. 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.

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

If you have any questions, please do not hesitate to call.

Sincerely,

Scott Porter

Scott Porter | Glenn Bowen

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Attachment 2

Milliman

1550 Liberty Ridge Drive
Suite 200
Wayne, PA 19087-5572

Tel +1 610 687.5644
Fax +1 610.687.4236

www.milliman.com

May 28, 2013

Mr. Charles Zogby
Secretary of the Budget
Commonwealth of Pennsylvania
Harrisburg, PA 17101

RE: Response to SERS Actuarial Note on H.B. 1350, P.N. 1760 by Hay Group

Dear Mr. Zogby:

As requested, we have reviewed the DRAFT Actuarial Note on H.B. 1350, P.N. 1760 completed by the Hay Group ("Hay") regarding the Pennsylvania State Employees' Retirement System ("SERS") dated May 21, 2013. H.B. 1350 is the Governor's proposal on changes to benefits for future employees and current employees and to the contribution collars on which we have provided the Budget Office various cost analyses.

The primary difference between Milliman's and Hay's analyses is regarding the investment return assumption and amortization period to be used in future years. Hay assumes the investment return assumption will be lowered 50 basis points every ten years and recommends that the amortization period used for future gains/losses, including changes in actuarial assumptions, be reduced from 30 years to 15 years during the projection period. Based on these assumption and method changes, Hay estimates that the cost impact of the Governor's proposal would effectively be cost neutral.

As discussed below, we believe Milliman's analysis provides a reasonable estimate of the reduction in employer contributions over the projection period due to the Governor's proposal, which is significantly higher than the estimates provided by Hay. Specifically:

1) Future benefit payments will be lower due to proposed benefit reductions for current and future employees which decreases the cost of the System

2) Liquidity needs remain stable and do not warrant asset re-allocation based on a stable projected liquidity ratio; Hay does not identify any specific metric justifying reductions in the investment return assumption nor any indication what asset re-allocation would occur that result in the magnitude of the adjustment

3) Current life expectancy assumptions in the annual valuation understate the projected cost of the DB plan and thus understate the savings of the Governor's proposal since the life expectancy of the members would be expected to increase in future years from its current level as new members join the System

Cost Impact

The Governor's proposal reduces the cost of providing benefits from SERS due to:

- Current employees will receive lower benefits in the future once retired, which reduces the cost of the System
- Future employees will receive employer contributions to a DC plan that are less than the cost of providing the current DB plan benefits, which also reduces the costs of the System (this is even taking into account the fact that employer contributions to the DB plan are based on a risk-based investment return assumption of 7.5%)

In addition, the Governor's proposal reduces the risk of adverse experience on the State budget by reducing the size of the system and transferring investment and mortality risk to employees.

Baseline projections indicate that in 30 years the accrued liability of the system will double from its current value. Under the Governor's proposal, the DB plan accrued liability is expected to be slightly lower in 30 years. Assuming the State budget grows 2.5% annually, the State budget is expected to double in 30 years. Therefore, the relative value of the DB plan to the State budget is expected to be cut in half under the Governor's proposal. Thus under the Governor's proposal the Commonwealth should be able to adjust more easily to different DB plan contribution patterns that may arise due to adverse experience.

Note that adverse investment experience will have a much greater impact on the current baseline projections (ongoing DB plan with employer bearing most of investment risk) than the Governor's proposal (DC plan for future hires with members bearing investment risk). This was a fundamental principal underlying the Governor's proposal, but this significant reduction in risk due to the Governor's proposal is not considered in Hay's response. *Furthermore, if the investment return assumption is reduced from its current level of 7.5%, the estimated savings from the Governor's proposal would increase.*

The costs of any retirement system are covered by current assets, future employee contributions, future employer contributions and future investment returns. Hay states that the Governor's proposal will result in lower future investment returns, thereby increasing future employer contribution requirements. Hay notes "the expected future liquidity requirements for this group will most likely result in gradual limitations in fund investment opportunities and a shifting to an increasingly conservative (lower risk) investment portfolio". In their analysis, Hay does not identify any specific metric to justify selecting reductions every ten years, nor do they provide any details on changes to the investment allocation that would result in the estimated 50 basis point decrease in the investment return assumption at each change date.

Liquidity Analysis

In Milliman's analysis for the Budget Office regarding the cost impact of the Governor's proposal, we developed a "liquidity ratio" to determine if future cash flow needs would warrant a reallocation of System assets, which would then result in a reduction in the investment return assumption. The liquidity ratio is equal to the expected benefit payments in the upcoming year divided by the market value of assets. The attached graph compares the projected benefit payments from SERS under the Governor's proposal versus 10% of the market value of assets (10% of assets are used to provide a scale for graphing purposes). As of December 31, 2011, the liquidity ratio is approximately 11.1% and under the Governor's proposal is expected to grow slightly over the next several years, but by less than 1.5%. Then the ratio is expected to decrease over time such that by the end of the projection period the liquidity ratio is consistent with the ratio as of December 31, 2011.

The primary reason that the liquidity ratio increases over the next several years is related to the contribution collars, not to the fact that the plan has closed to future employees. It continues to decrease due to the significant amount of funding that is included in the Governor's proposal during the projection period to pay down the unfunded liability. Based on this analysis, annual cash flow needs for benefits remain roughly the same over time compared to System assets. Thus, we do not believe that the level of risk taken in the investment portfolio must be reduced to meet the liquidity needs of the System.

Other Actuarial Assumptions – Life Expectancy Assumption

The baseline projections and the Governor's proposal projections prepared by Hay and Milliman are based on the current set of actuarial assumptions used in the annual valuation. Every five years an experience study is conducted and these assumptions are modified based on emerging experience. To the extent that assumption changes occur in the future, the actuarial contribution rates for the DB plan will be adjusted to reflect these changes. Note that the costs of the DC plan will not change when there are changes in actuarial assumptions. Therefore, the baseline projections will react differently than the Governor's proposal due to changes in assumptions, as the DB portion of the System decreases in future years under the Governor's proposal.

For example, if the life expectancy assumption is improved in future valuations to account for members living longer than current expectations, the costs of the baseline projections and the Governor's proposal will be higher than shown in Milliman's and Hay's analyses. However, the impact on the baseline projections will be greater than the impact under the Governor's proposal because the assumption change impacts only the DB portion of the System. These expected higher baseline DB costs are not currently included in the baseline projections, which understates the cost of the ongoing

DB plan and thus understates the savings of the Governor's proposal relative to the baseline.

Basis for Analysis

These estimates are subject to the uncertainties of a regular actuarial valuation; the costs are inexact because they are based on assumptions that are themselves necessarily inexact, even though we consider them reasonable. Thus, the emerging costs may vary from those developed in the model to the extent actual experience differs from that projected by the actuarial assumptions. Actual costs and plan funding will vary with plan experience and will be affected by both economic and demographic factors. As such, the results developed in these models should be considered estimates of future trends and not accurate predictions of actual contributions.

This analysis was prepared exclusively for the Pennsylvania Office of the Budget for a specific and limited purpose. It is a complex, technical analysis that assumes a high level of knowledge concerning SERS operations, and uses SERS data, which Milliman has not audited. It is not for the use or benefit of any third party for any purpose. 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.

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

If you have any questions, please do not hesitate to call.

Sincerely,

Scott Porter

Scott Porter

Glenn Bowen

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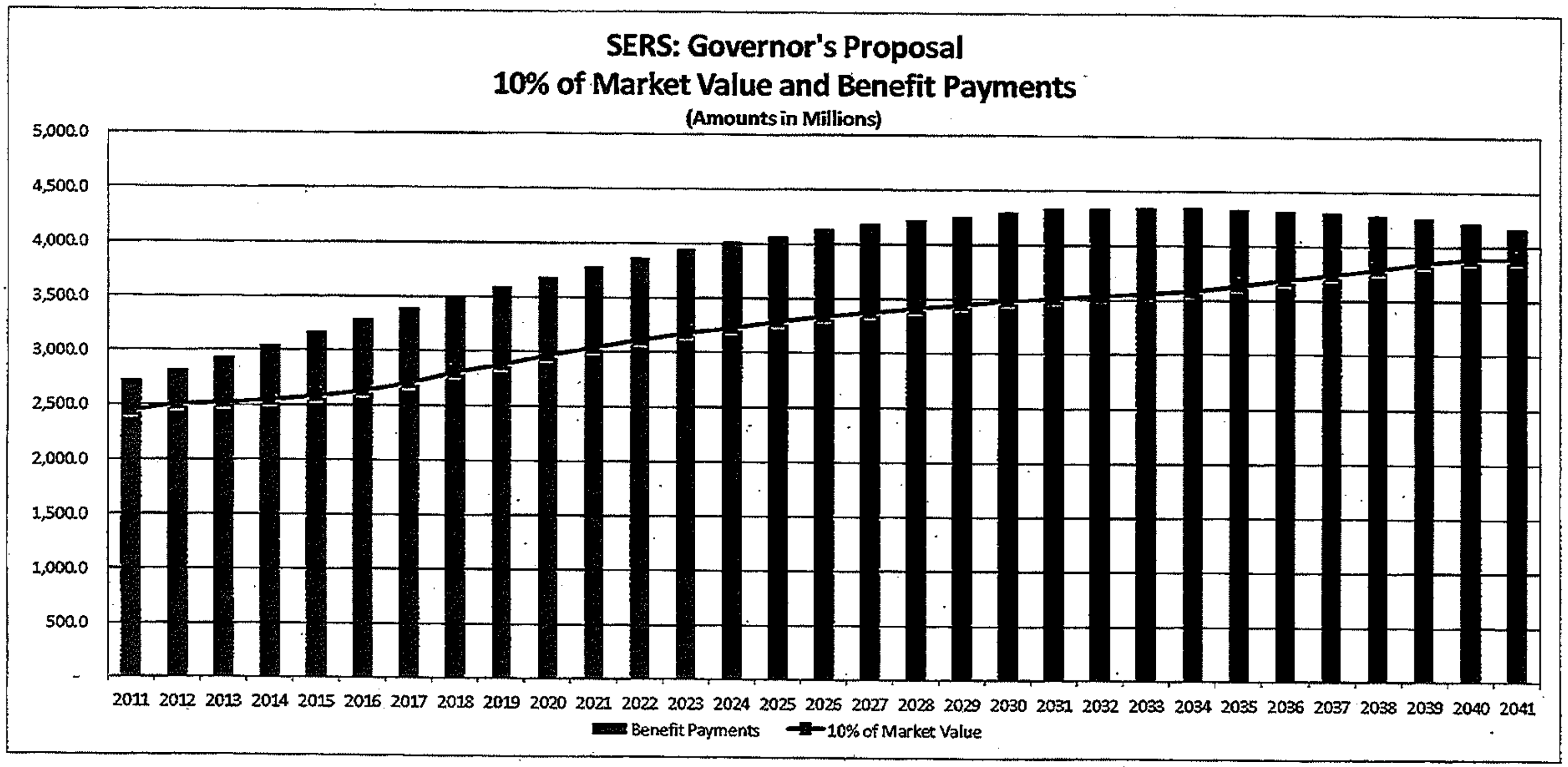
Enclosures

cc: Charles Zogby (with enclosures)


SERS: Governor's Proposal
10% of Market Value and Benefit Payments
(Amounts in Millions)
5,000.0
4,500.0
4,000.0
3,500.0
3,000.0
2,500.0
2,000.0
1,500.0
1,000.0
500.0
2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041
Benefit Payments
10% of Market Value

Attachment 3

Milliman

1650 Liberty Ridge Drive
Suite 200
Wayne, PA 19087-5572

Tel +1 610 687.5644
Fax +1 610.687.4236

www.milliman.com

Memorandum

Date: March 18, 2013
Regarding: Actuarial Projections of Governor's Proposal
From: Scott Porter, FSA and Glenn Bowen, FSA

Introduction

This memorandum describes the design changes contained in the Governor's proposal for the two Pennsylvania statewide retirement systems (the Public School Employees' Retirement System "PSERS" and the State Employees' Retirement System "SERS") and the actuarial modeling procedures used by Milliman to value the impact of these changes. The purpose of our projection modeling is to assist the Budget Office in understanding the impact on the long-term projected costs of the pension systems due to modifying the plan design for current and future employees, including changes to the contribution collars. For PSERS, the projected costs exclude the cost of the healthcare premium assistance.

These projections are based on Milliman's replication valuation of the 2011 actuarial valuation for each system. We believe this basis provides consistent results to the projections performed by the respective actuaries shown in the respective actuarial valuation reports, and provide a reasonable basis for determining the estimated effect of potential plan design and funding policy changes. The actual impact of any plan design changes will be determined by the respective actuaries for each system over time as future valuations are conducted.

The results of our modeling can be used to understand the pattern of emerging costs and liabilities due to the proposed changes, but should not be relied upon as a guarantee of actual costs to be incurred by the Commonwealth and other employers. Future funding and accounting obligations will be determined by an actuarial valuation of the systems as of the future valuation dates. Actual plan costs will ultimately be determined by the benefits provided by the systems and not by the actuarial calculations provided in this model.

This analysis was prepared exclusively for the Pennsylvania Office of the Budget for a specific and limited purpose. It is a complex, technical analysis that assumes a high level of knowledge concerning PSERS and SERS operations, and uses PSERS and SERS data, which Milliman has not audited. It is not for the use or benefit of any third party for any purpose. 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.

The consultants who worked on this assignment are pension actuaries. We have not explored any legal issues with respect to the proposed plan changes. We are not attorneys and cannot give legal advice on such issues. We suggest that you review any retirement plan design proposal with counsel.

Proposed DC Plan for Future Employees

This plan design element includes the implementation of a defined contribution plan for future employees effective January 1, 2015 for SERS and July 1, 2015 for PSERS. Enrollment in the DC plan will be mandatory with mandatory employee contributions of 7.5% for PSERS and 6.25% for SERS. Employees will be 100% vested on employee contributions. For employer contributions and associated interest, employees will be 100% vested after 4 years of employment. The vesting schedule for employer contributions is 0% vested at 1 year, 50% at 2 years, 75% at 3 years and 100% at 4 or more years.

Employees will be allowed to take a lump sum distribution upon termination of employment. The distribution is limited to the amount of employee contributions with associated interest. The amount of employer contributions with associated interest will only be available for distribution as a lifetime annuity. There will be no hardship withdrawals or loans.

The following employer contribution rates are proposed:

Employee Group	Employer DC Rate*
PSERS employees	4.0%
SERS General Employees	4.0
SERS Hazardous Duty	5.5
SERS State Police	12.2
SERS Judiciary	4.0
SERS Legislators	4.0
SERS Park Rangers and Capitol Police	4.0

*Percentage of pensionable compensation contributed by the employer.

For modeling purposes, we have developed our expectation of emerging DC payroll by calculating the difference between total projected payroll from our baseline projection run and the runoff of closed DB payroll for existing employees (i.e. – for this analysis we have assumed that future DC hires will have similar career paths as current employees).

Proposed DB Plan Changes for Current Employees

This plan design element includes modifications to the determination of the benefit payable from SERS and PSERS for prospective service of current employees effective January 1, 2015 for SERS and July 1, 2015 for PSERS.

The proposed design changes only apply to the "future service" benefit. The benefit based on "past service" is not impacted by the proposed plan design. ***Therefore, the portion of the benefit based on past service that is earned as of the effective date will continue to increase based on future salary increases and will continue to reflect the provisions of the current plan (for example definition of pensionable pay).***

The changes proposed for the prospective service of current employees are as follows and are discussed in detail below:

- A reduction in the multiplier by 0.5% for all employees with a multiplier of at least 2.5%, including the DiLauro arbitration award for State Police, unless the member elected to buy up
- Adjust Option 4 to be "cost neutral"
- Adjust various components of the compensation used to determine final average compensation for all members which include:
    - Capping pensionable compensation to the Social Security Taxable Wage Base
    - Increasing the final average period to 5 years
    - Implementing a "NY style" limit on earnings used in determining the final average (110% of the average of the prior four years of earnings)

<u>Multiplier</u>

The Governor's proposal reduces the multiplier from 2.5% to 2%. For SERS, this affects general employees, hazardous duty and park rangers in Class AA. This has no impact on members in Class A, Class A-3 and Class A-4. For PSERS, this affects class T-D members only and does not impact classes T-C, T-E, or T-F members.

The proposal also reduces the multiplier for judges, legislators and state police. For Class D-4 legislators and Class E-2 judges, the decrease in the multiplier is from 3% to 2.5% and for Class E-1 judges, the decrease is from 4% for the first 10 years and 3% thereafter to 3.5% for the first 10 years and 2.5% thereafter.

State police are all considered Class A or A-3 so there is no reduction in the multiplier under the proposed reforms. However, state police are eligible for special unreduced benefits at 20 and 25 years provided by the DiLauro arbitration award. The benefits are

50% and 75% of highest compensation, respectively. This analysis includes a reduction in the benefits provided by the DiLauro award (applied to future service only), which are:

- No change in benefits for members who have attained 20 years of service as of January 1, 2015
- Retrospective piece - The benefit percentage that is applied to the prior determination of compensation (highest year) is determined by multiplying the benefit percentage of 50% or 75% by a ratio of the member's years of service at the transition date divided by 20 or 25 years as applicable
  - Ex. Member with 15 years of service, will have benefit percentages of 37.5% (50% * 15/20) and 45% (75% * 15/25) that are applied to highest year of compensation
- Prospective piece - The benefit percentage that is applied to the new determination of final average compensation (compensation capped to taxable wage base, final 5, NY anti-spiking) is the "total percentage" less the percentage applied to the highest year described above. The total percentage is equal to the benefit percentage of 50% or 75% reduced by 0.5% for each year the member has less than 20 or 25 years as of January 1, 2015.
  - Ex. Member with 15 years of service, will have total benefit percentages of 47.5% (50% - 0.5% x 5) and 70% (75% - 0.5% x 10). The benefit percentages applied to new final average compensation definition are then 10% (47.5% - 37.5%) and 25% (70% - 45%)

Members will be allowed to maintain the current multiplier through an increase in the employee contribution rate. The increase is 3.5% of pay for SERS and 5.0% of pay for PSERS. This additional rate will be based on capped pensionable compensation to the Social Security Taxable Wage Base as discussed below. All other aspects of the Governor's proposal would remain in effect.

<u>Neutral Option 4</u>

This element eliminates the "subsidy" when members elect Option 4, by determining the actuarial equivalent value of the offset based on the valuation interest rate, which is currently 7.5%. No other changes are proposed in the actuarial equivalent factors, and interest on contributions is assumed to remain at 4% per year. This change would only impact contributions made after the proposed effective date. Therefore, the option 4 factors used for contributions made as of the effective date, including interest thereon until date of retirement, would continue to be based on a 4% interest rate.

This option would impact all membership groups in SERS and PSERS, except for Classes A-3 and A-4 in SERS and members in T-E and T-F in PSERS. Option 4 is not available to these tiers.

Limiting Pensionable Compensation to the Social Security Taxable Wage Base:

This element limits pensionable compensation to the Social Security Taxable Wage Base. For 2013, the wage base is $113,700. This is projected to increase 4% per year in the future. Employee contributions would also be based on capped pensionable compensation. This change impacts all members of the systems.

In determining the contribution rates for each system, we applied the following methods:

- The normal cost rate is determined on total pay (i.e. including pay in excess of Social Security Taxable Wage Base) for each system.
- For PSERS, the employee contribution rate is adjusted by the ratio of pensionable pay to total pay.
- The amortization rates were based on total pay and thus employer contribution dollars were based on total pay.

Average Compensation

The proposed design increases the average compensation period from 3 years to 5 years. For determining final average compensation on service accrued after the 2015 effective date, earnings prior to 2015 will apply. In addition, a limit on the pensionable compensation used in the determination of the average earnings has been added equal to 110% of the average of the prior 4 years of pensionable compensation. This limit has been modeled after New York's Tier 6, which was effective as of April 1, 2012.

Closed DB Plan Financing

Contribution Collars

Included in the Governor's proposal is an adjustment to the contribution collars, such that the increment is reduced from 4.5% of pay, to 2.25% of pay beginning with fiscal year 2014, and then increasing 0.5% of pay per year until the actuarial rate is attained or the collar increment is 4.5%. The proposed contribution collars increase the number of years until the actuarial rate is attained. Assuming 7.5% investment returns each year, this change increases the period that the collars apply from 4 years (under current law) to 6 years (under proposed collars) for PSERS and 5 years (under current law) to 6 years (under proposed collars) for SERS. Based on all of the proposed reforms, the number of years until the actuarial rate is attained is 4 years for PSERS and 5 years for SERS.

Contributions as Percent of Payroll

Currently, PSERS and SERS are funded through payroll contributions. The actuarial valuations determine the contribution rates, which are then limited by the applicable collars. This final contribution rate is then applied to the payroll of participating employers and the resulting amounts are contributed to the systems' assets. With the DB pension systems being closed as new employees enter a DC plan, the UAL contribution rate will be based on total payroll, i.e. DB plus DC payroll. The following details this method:

- The normal cost rate will be determined based on the methods employed by the systems.
- The amortization payments will continue to be determined under the current methods used by the systems.
- The amortization payment will be converted to a rate based on total DB and DC payroll.
- The sum of the normal cost rate plus the amortization rate will comprise the actuarial rate.
- The actuarial rate will be compared to the collared rate and the lesser of the two rates will be the final rate.
- Employers will contribute the normal cost rate on DB payroll only.
- Employers will contribute the DC rate on DC payroll only.
- The UAL rate will be defined as the difference between the final rate and the normal cost rate, which will be contributed on DB and DC payroll.

In essence, the DC plan contribution rate equals the DC rate plus the UAL rate. Employers then pay a blended DB/DC rate. The System then allocates the appropriate portion to the DC plan with the remaining contributions allocated to the DB plan.

<u>Actuarial and Amortization Methods</u>

Please note that the impact of the Governor's proposal affects each system differently due to the different methods employed by the systems in determining the normal cost rate. Each system utilizes the Entry Age Normal cost method, but applies it differently. The normal cost rate represents the long-term average cost of the plan as a percent of salary. If this rate is contributed each and every year by members and/or employers, plan benefits would be funded upon termination of employment, if all actuarial assumptions were met.

PSERS

PSERS employs a more traditional method, which bases the normal cost rate on the benefits being earned by current members. In determining the normal cost rate, we assumed that the proposed plan design changes for current employees have been in effect since date of hire. This approach will result in an immediate decrease in the normal cost rate, which would be consistent with the value of future service benefits that are to be accrued in future years. Since future hires would not be included in this calculation, there is no further adjustment necessary.

Changes in liability arising from plan changes are amortized over 10 years using a level percent of pay amortization. We have assumed that the contribution collars would not be adjusted, i.e. this change would not impact the final rate directly, but only through the development of the actuarial rate.

SERS

SERS bases the normal cost rate on the benefits and demographics for new hires in the general employee class. If new hires are added to a DC plan, then there is no basis to determine this normal cost rate. In a 2010 analysis conducted by the Hay Group, the SERS actuary, they indicated that the normal cost rate would be based on a hypothetical new entrant cohort consistent with last valuation that allowed new entrants. Therefore, there would not be any modification to the normal cost rate. For this analysis, we utilized the same approach.

Under this approach, the changes for current employees do not impact the normal cost rate, but impact the amortization rate. The decrease in the full present value of benefits less any decrease in the present value of employee contributions would result in an immediate decrease in the actuarial accrued liability.

Changes in liability arising from plan changes are amortized over 20 years using a level dollar amortization. We have assumed that the contribution collars would not be adjusted, i.e. this change would not impact the final rate directly, but only through the development of the actuarial rate.

Actuarial Assumptions

The estimated projected contribution requirements developed in the models are based on a variety of actuarial assumptions.

- The actual investment return earned each valuation year in the future is assumed to equal the current assumption of 7.5%. No change in the assumption has been made during the projection period. Valuation year is calendar year for SERS and fiscal year for PSERS. For the period ending June 30, 2012 for PSERS, an adjustment was made such that the market value of pension assets is consistent with the recently released June 30, 2012 actuarial valuation. For SERS, a 10% return is assumed for calendar year 2012.

- The current payroll growth assumption of 3.5% is used for amortization purposes for PSERS. It is designed to produce an amortization rate that would remain level as a percentage of payroll assuming payroll increases 3.5% per year. SERS does not use a payroll growth assumption as the amortization amounts developed are based on a level dollar approach. A level dollar approach will result in a decreasing amortization rate as a percent of pay, assuming the entire series of amortization payments are made as scheduled. There are advantages and disadvantages to using either approach. Projected payroll is based on the actuarial assumptions and the population projections described below.

- The percentage of the contributions paid by the General Fund are assumed to be 41.4% for SERS as provided by the Budget Office and 57% phasing into 60% for PSERS. Also for PSERS, we have included the timing adjustment that 71.512% of the contribution is based on the rate for that fiscal year and 28.488% is based on the rate for the prior fiscal year. The timing adjustment was assumed to not apply for the contributions made to the defined contribution plan.

- In future years, new entrants are added as required to maintain the active population count at the current level of 279,152 for PSERS and 107,021 for SERS based on the 2011 actuarial valuations. In addition, the proportion of the total population represented by full-time and part-time employees for PSERS and the different groups for SERS (general employees, hazardous duty, legislators, judges, state police and park rangers) are held constant in each projection year.

- Age and salary distributions for new entrants in future years are based on those members who entered the system within one year prior to the respective valuation dates. Composition of the new entrant group by employee type in each year is adjusted to maintain the proportion of the various groups noted above in the active population.

- Act 120 provides new members a choice upon hire to elect the tier with the higher multiplier (T-F for PSERS and A-4 for SERS) versus the default option (T-E for PSERS and A-3 for SERS). For these projections, all new employees were assumed to elect the default option. Approximately 10% of eligible members have elected these higher multiplier tiers. We believe that assuming a portion of future employees electing the higher multiplier tiers would have a deminimus impact on the projected contribution rates.

- The Governor's proposal allows members to maintain the current multiplier, through an increase in the member's contribution rate. The actuarial projections do not include the impact of members electing this option.

- Salaries were assumed to increase at the respective valuation salary scales for continuing actives. New entrant salaries were assumed to increase at the wage inflation rate indicated in the actuarial valuation (4% for PSERS and 3.05% for SERS).

- Future plan experience with respect to terminations, retirement, mortality, overtime, etc. is assumed to exactly equal the actuarial assumptions utilized in the December 31, 2011 Actuarial Valuation for SERS and June 30, 2011 Actuarial Valuation for PSERS, unless noted otherwise. We assumed the Governor's proposal would not impact the behavior of the current employees. Except as noted herein, the plan provisions used in the calculations are those summarized in the respective 2011 actuarial valuation reports and are assumed not to change during the projection period.

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Results Summary *($ amounts shown in millions)*

Valuation Date Fiscal Year Projection Year		7/1/2011 2013 0	7/1/2012 2014 1	7/1/2013 2015 2	7/1/2014 2016 3	7/1/2015 2017 4	7/1/2016 2018 5	7/1/2017 2019 6
Investment Return on Market Value of Assets		2.05%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Collared Rate Increments	Use Phase-in Collars	3.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
Interest Rate Assumption	N	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Payroll Growth Assumption		3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
Percentage of Contribution paid by General Fund		57.1%	57.4%	57.7%	58.0%	58.2%	58.4%	58.6%
DC Contribution Rates				4.00%				
Scenario		Baseline						Amortization Period

	2013	2014	2015	2016	2017	2018	2019
Assets and Liabilities as of Valuation Date							
Total Accrued Liability	85,318.4	87,984.1	90,690.9	93,397.7	96,128.6	98,903.7	101,733.8
Actuarial Value of Assets	59,141.1	58,302.5	57,701.2	57,451.4	57,699.2	58,421.9	58,867.9
Unfunded/(Surplus)	26,177.2	29,681.7	32,989.8	35,946.3	38,429.4	40,481.7	42,865.9
Funded Ratio on Actuarial Value Basis	69.3%	66.3%	63.6%	61.5%	60.0%	59.1%	57.9%
Market Value of Assets	51,200.0	48,533.8	48,737.7	49,424.6	50,743.3	52,794.5	55,187.9
Pension AVA/MVA Ratio	115.5%	120.1%	118.4%	116.2%	113.7%	110.7%	106.7%
Unfunded/(Surplus) on Market Value Basis	34,118.4	39,450.3	41,953.2	43,973.1	45,385.3	46,109.2	46,545.9
Funded Ratio on Market Value Basis	60.0%	55.2%	53.7%	52.9%	52.8%	53.4%	54.2%
Employer Contributions by Fiscal Year							
Unfunded Liability Rate	12.83%	15.02%	16.30%	17.61%	18.66%	19.51%	20.50%
Normal Cost Rate	8.56%	8.33%	8.13%	7.95%	7.78%	7.61%	7.46%
Actuarial Contribution Rate	21.39%	23.35%	24.43%	25.56%	26.44%	27.12%	27.96%
Collared Rate	11.50%	16.00%	20.50%	25.00%	n/a	n/a	n/a
Final Contribution Rate	11.50%	16.00%	20.50%	25.00%	26.44%	27.12%	27.96%
DC Contribution Rate (with DB UAL Rate)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Blended Contribution Rate (DB+DC)	11.50%	16.00%	20.50%	25.00%	26.44%	27.12%	27.96%
DB Contribution Dollars	1,604.6	2,259.6	3,002.4	3,773.5	4,118.5	4,364.7	4,653.9
DC Contribution Dollars	-	-	-	-	-	-	-
Total Contribution Dollars	1,604.6	2,259.6	3,002.4	3,773.5	4,118.5	4,364.7	4,653.9
General Fund Amount (adj for timing) - incl. DC, if applicable	828.8	1,188.5	1,608.4	2,058.7	2,337.6	2,505.7	2,676.4
Risk Metrics							
Benefit Payments in upcoming year	5,667.3	5,866.9	6,100.6	6,315.3	6,519.9	6,721.2	6,917.4
As a Percent of Market Value	11.07%	12.09%	12.52%	12.78%	12.85%	12.73%	12.53%
Market Value/Benefit Payment Ratio	9.0	8.3	8.0	7.8	7.8	7.9	8.0

Results Summary *($ amounts shown in millions)*

Valuation Date	7/1/2018	7/1/2019	7/1/2020	7/1/2021	7/1/2022	7/1/2023	7/1/2024
Fiscal Year	2020	2021	2022	2023	2024	2025	2026
Projection Year	7	8	9	10	11	12	13
Investment Return on Market Value of Assets	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Collared Rate Increments — Use Phase-in Collars: N	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
Interest Rate Assumption	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Payroll Growth Assumption	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
Percentage of Contribution paid by General Fund	58.8%	59.0%	59.2%	59.4%	59.6%	59.8%	60.0%
DC Contribution Rates							
Scenario	for Plan Change	10					
Assets and Liabilities as of Valuation Date							
Total Accrued Liability	104,639.8	107,605.7	110,669.4	113,810.7	117,041.3	120,360.2	123,789.7
Actuarial Value of Assets	59,901.2	62,993.3	66,283.3	69,319.9	72,904.8	76,855.3	81,191.5
Unfunded/(Surplus)	44,738.6	44,612.4	44,386.1	44,490.8	44,136.5	43,504.9	42,598.2
Funded Ratio on Actuarial Value Basis	57.2%	58.5%	59.9%	60.9%	62.3%	63.9%	65.6%
Market Value of Assets	57,854.0	60,840.3	64,180.4	67,749.0	71,587.5	75,745.8	80,245.3
Pension AVA/MVA Ratio	103.5%	103.5%	103.3%	102.3%	101.8%	101.5%	101.2%
Unfunded/(Surplus) on Market Value Basis	46,785.8	46,765.4	46,489.0	46,061.7	45,453.8	44,614.4	43,544.4
Funded Ratio on Market Value Basis	55.3%	56.5%	58.0%	59.5%	61.2%	62.9%	64.8%
Employer Contributions by Fiscal Year							
Unfunded Liability Rate	21.26%	21.22%	21.24%	21.43%	21.49%	21.52%	21.54%
Normal Cost Rate	7.32%	7.18%	7.04%	6.91%	6.78%	6.65%	6.52%
Actuarial Contribution Rate	28.58%	28.40%	28.28%	28.34%	28.27%	28.17%	28.06%
Collared Rate	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Final Contribution Rate	28.58%	28.40%	28.28%	28.34%	28.27%	28.17%	28.06%
DC Contribution Rate (with DB UAL Rate)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Blended Contribution Rate (DB+DC)	28.58%	28.40%	28.28%	28.34%	28.27%	28.17%	28.06%
DB Contribution Dollars	4,922.4	5,064.3	5,222.8	5,423.4	5,605.6	5,787.2	5,970.0
DC Contribution Dollars	-	-	-	-	-	-	-
Total Contribution Dollars	4,922.4	5,064.3	5,222.8	5,423.4	5,605.6	5,787.2	5,970.0
General Fund Amount (adj for timing) - incl. DC, if applicable	2,846.7	2,961.3	3,062.3	3,184.6	3,306.9	3,426.6	3,547.5
Risk Metrics							
Benefit Payments in upcoming year	7,132.3	7,319.4	7,527.9	7,731.7	7,950.8	8,155.8	8,394.4
As a Percent of Market Value	12.33%	12.03%	11.73%	11.41%	11.11%	10.77%	10.46%
Market Value/Benefit Payment Ratio	8.1	8.3	8.5	8.8	9.0	9.3	9.6

Results Summary *($ amounts shown in millions)*

Valuation Date / Fiscal Year / Projection Year	7/1/2025 2027 14	7/1/2026 2028 15	7/1/2027 2029 16	7/1/2028 2030 17	7/1/2029 2031 18	7/1/2030 2032 19	7/1/2031 2033 20
Investment Return on Market Value of Assets	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Collared Rate Increments — Use Phase-in Collars	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
Interest Rate Assumption — N	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Payroll Growth Assumption	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
Percentage of Contribution paid by General Fund	60.0%	60.0%	60.0%	60.0%	60.0%	60.0%	60.0%
DC Contribution Rates							
Scenario							

Assets and Liabilities as of Valuation Date							
Total Accrued Liability	127,304.6	130,896.6	134,566.9	138,318.0	142,137.0	146,022.4	149,945.5
Actuarial Value of Assets	85,857.1	90,899.4	96,330.6	102,164.1	108,407.6	115,090.3	122,224.9
Unfunded/(Surplus)	41,447.4	39,997.2	38,236.4	36,153.8	33,729.4	30,932.1	27,720.6
Funded Ratio on Actuarial Value Basis	67.4%	69.4%	71.6%	73.9%	76.3%	78.8%	81.5%
Market Value of Assets	85,032.2	90,157.7	95,640.4	101,505.8	107,771.8	114,466.0	121,600.4
Pension AVA/MVA Ratio	101.0%	100.8%	100.7%	100.6%	100.6%	100.5%	100.5%
Unfunded/(Surplus) on Market Value Basis	42,272.4	40,738.9	38,926.5	36,812.2	34,365.2	31,556.4	28,345.1
Funded Ratio on Market Value Basis	66.8%	68.9%	71.1%	73.4%	75.8%	78.4%	81.1%
Employer Contributions by Fiscal Year							
Unfunded Liability Rate	21.56%	21.56%	21.56%	21.56%	21.55%	21.54%	21.53%
Normal Cost Rate	6.39%	6.27%	6.14%	6.01%	5.89%	5.76%	5.63%
Actuarial Contribution Rate	27.95%	27.83%	27.70%	27.57%	27.44%	27.30%	27.16%
Collared Rate	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Final Contribution Rate	27.95%	27.83%	27.70%	27.57%	27.44%	27.30%	27.16%
DC Contribution Rate (with DB UAL Rate)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Blended Contribution Rate (DB+DC)	27.95%	27.83%	27.70%	27.57%	27.44%	27.30%	27.16%
DB Contribution Dollars	6,156.8	6,346.0	6,536.9	6,732.3	6,933.0	7,135.7	7,344.0
DC Contribution Dollars	-	-	-	-	-	-	-
Total Contribution Dollars	6,156.8	6,346.0	6,536.9	6,732.3	6,933.0	7,135.7	7,344.0
General Fund Amount (adj for timing) - incl. DC, if applicable	3,662.2	3,775.3	3,889.5	4,006.0	4,125.5	4,246.8	4,370.8
Risk Metrics							
Benefit Payments in upcoming year	8,645.7	8,908.7	9,176.8	9,458.2	9,747.8	10,063.6	10,367.2
As a Percent of Market Value	10.17%	9.88%	9.60%	9.32%	9.04%	8.79%	8.53%
Market Value/Benefit Payment Ratio	9.8	10.1	10.4	10.7	11.1	11.4	11.7

Results Summary *($ amounts shown in millions)*

Valuation Date / Fiscal Year / Projection Year		7/1/2032 2034 21	7/1/2033 2035 22	7/1/2034 2036 23	7/1/2035 2037 24	7/1/2036 2038 25	7/1/2037 2039 26	7/1/2038 2040 27
Investment Return on Market Value of Assets		7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Collared Rate Increments	Use Phase-in Collars	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
Interest Rate Assumption	N	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Payroll Growth Assumption		3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
Percentage of Contribution paid by General Fund		60.0%	60.0%	60.0%	60.0%	60.0%	60.0%	60.0%
DC Contribution Rates								
Scenario.								

	2034	2035	2036	2037	2038	2039	2040
Assets and Liabilities as of Valuation Date							
Total Accrued Liability	153,921.7	157,949.5	162,060.7	166,219.2	170,446.5	174,750.8	179,143.5
Actuarial Value of Assets	129,857.7	138,015.5	146,757.9	156,102.8	162,711.6	168,845.7	174,794.2
Unfunded/(Surplus)	24,064.0	19,934.0	15,302.8	10,116.4	7,734.9	5,905.1	4,349.3
Funded Ratio on Actuarial Value Basis	84.4%	87.4%	90.6%	93.9%	95.5%	96.6%	97.6%
Market Value of Assets	129,224.4	137,366.1	146,086.0	155,402.8	161,978.5	168,077.6	173,989.9
Pension AVA/MVA Ratio	100.5%	100.5%	100.5%	100.5%	100.5%	100.5%	100.5%
Unfunded/(Surplus) on Market Value Basis	24,697.3	20,583.4	15,974.7	10,816.4	8,468.0	6,673.2	5,153.6
Funded Ratio on Market Value Basis	84.0%	87.0%	90.1%	93.5%	95.0%	96.2%	97.1%
Employer Contributions by Fiscal Year							
Unfunded Liability Rate	21.51%	21.49%	10.53%	7.94%	6.47%	5.04%	3.82%
Normal Cost Rate	5.50%	5.37%	5.25%	5.13%	5.01%	4.89%	4.79%
Actuarial Contribution Rate	27.01%	26.86%	15.78%	13.07%	11.48%	9.93%	8.61%
Collared Rate	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Final Contribution Rate	27.01%	26.86%	15.78%	13.07%	11.48%	9.93%	8.61%
DC Contribution Rate (with DB UAL Rate)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Blended Contribution Rate (DB+DC)	27.01%	26.86%	15.78%	13.07%	11.48%	9.93%	8.61%
DB Contribution Dollars	7,555.8	7,774.1	4,725.5	4,050.4	3,681.8	3,296.5	2,959.7
DC Contribution Dollars	-	-	-	-	-	-	-
Total Contribution Dollars	7,555.8	7,774.1	4,725.5	4,050.4	3,681.8	3,296.5	2,959.7
General Fund Amount (adj for timing) - incl. DC, if applicable	4,497.3	4,627.1	3,356.4	2,545.6	2,272.1	2,043.8	1,833.4
Risk Metrics							
Benefit Payments in upcoming year	10,686.7	10,990.6	11,326.8	11,658.8	11,988.3	12,313.8	12,636.2
As a Percent of Market Value	8.27%	8.00%	7.75%	7.50%	7.40%	7.33%	7.26%
Market Value/Benefit Payment Ratio	12.1	12.5	12.9	13.3	13.5	13.6	13.8

Results Summary *($ amounts shown in millions)*

Valuation Date Fiscal Year Projection Year		7/1/2039 2041 28	7/1/2040 2042 29	7/1/2041 2043 30
Investment Return on Market Value of Assets		7.50%	7.50%	7.50%
Collared Rate Increments	Use Phase-in Collars	4.50%	4.50%	4.50%
Interest Rate Assumption	N	7.50%	7.50%	7.50%
Payroll Growth Assumption		3.50%	3.50%	3.50%
Percentage of Contribution paid by General Fund		60.0%	60.0%	60.0%
DC Contribution Rates				
Scenario				

	7/1/2039	7/1/2040	7/1/2041
Assets and Liabilities as of Valuation Date			
Total Accrued Liability	183,634.9	188,232.9	192,958.2
Actuarial Value of Assets	180,531.9	186,097.0	191,553.6
Unfunded/(Surplus)	3,103.0	2,135.9	1,404.6
Funded Ratio on Actuarial Value Basis	98.3%	98.9%	99.3%
Market Value of Assets	179,691.0	185,219.5	190,640.0
Pension AVA/MVA Ratio	100.5%	100.5%	100.5%
Unfunded/(Surplus) on Market Value Basis	3,943.9	3,013.4	2,318.2
Funded Ratio on Market Value Basis	97.9%	98.4%	98.8%
Employer Contributions by Fiscal Year			
Unfunded Liability Rate	2.83%	2.04%	1.09%
Normal Cost Rate	4.68%	4.57%	4.48%
Actuarial Contribution Rate	7.51%	6.61%	5.57%
Collared Rate	n/a	n/a	n/a
Final Contribution Rate	7.51%	6.61%	5.57%
DC Contribution Rate (with DB UAL Rate)	0.00%	0.00%	0.00%
Blended Contribution Rate (DB+DC)	7.51%	6.61%	5.57%
DB Contribution Dollars	2,673.9	2,438.8	2,131.1
DC Contribution Dollars	-	-	-
Total Contribution Dollars	2,673.9	2,438.8	2,131.1
General Fund Amount (adj for timing) - incl. DC, if applicable	1,653.2	1,503.5	1,331.3
Risk Metrics			
Benefit Payments in upcoming year	12,958.4	13,261.1	13,521.7
As a Percent of Market Value	7.21%	7.16%	7.09%
Market Value/Benefit Payment Ratio	13.9	14.0	14.1

Results Summary *($ amounts shown in millions)*

Valuation Date	7/1/2011	7/1/2012	7/1/2013	7/1/2014	7/1/2015	7/1/2016	7/1/2017
Fiscal Year	2013	2014	2015	2016	2017	2018	2019
Projection Year	0	1	2	3	4	5	6
Investment Return on Market Value of Assets	2.05%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Collared Rate Increments (Use Phase-in Collars: Y)	3.50%	2.25%	2.75%	3.25%	3.75%	4.25%	4.50%
Interest Rate Assumption	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Payroll Growth Assumption	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
Percentage of Contribution paid by General Fund	57.1%	57.4%	57.7%	58.0%	58.2%	58.4%	58.6%
DC Contribution Rates			4.00%				
Scenario	Proposed Reforms - DC Plan+Collars+TWB Limit, NY Style Limit + FAE5, Neutral Option 4, 0.5% Multiplier Reduction						Amortization Period

Assets and Liabilities as of Valuation Date							
Total Accrued Liability	85,318.4	87,984.1	90,331.4	92,460.9	94,599.6	96,650.0	98,645.9
Actuarial Value of Assets	59,141.1	58,302.5	57,701.2	57,124.4	56,739.9	56,539.6	56,063.1
Unfunded/(Surplus)	26,177.2	29,681.7	32,630.2	35,336.5	37,859.7	40,110.4	42,582.8
Funded Ratio on Actuarial Value Basis	69.3%	66.3%	63.9%	61.8%	60.0%	58.5%	56.8%
Market Value of Assets	51,200.0	48,533.8	48,737.7	49,097.7	49,784.3	50,913.2	52,385.4
Pension AVA/MVA Ratio	115.5%	120.1%	118.4%	116.3%	114.0%	111.1%	107.0%
Unfunded/(Surplus) on Market Value Basis	34,118.4	39,450.3	41,593.7	43,363.2	44,815.3	45,736.8	46,260.5
Funded Ratio on Market Value Basis	60.0%	55.2%	54.0%	53.1%	52.6%	52.7%	53.1%
Employer Contributions by Fiscal Year							
Unfunded Liability Rate	12.83%	15.02%	15.97%	17.16%	18.24%	19.16%	20.17%
Normal Cost Rate	8.56%	8.33%	4.05%	4.01%	3.98%	3.98%	3.97%
Actuarial Contribution Rate	21.39%	23.35%	20.02%	21.17%	22.22%	23.14%	24.14%
Collared Rate	11.50%	13.75%	16.50%	19.75%	n/a	n/a	n/a
Final Contribution Rate	11.50%	13.75%	16.50%	19.75%	22.22%	23.14%	24.14%
DC Contribution Rate (with DB UAL Rate)	0.00%	0.00%	0.00%	19.74%	22.24%	23.16%	24.17%
Blended Contribution Rate (DB+DC)	11.50%	13.75%	16.50%	19.75%	22.22%	23.14%	24.15%
DB Contribution Dollars	1,604.6	1,944.5	2,416.6	2,952.1	3,404.5	3,640.0	3,907.1
DC Contribution Dollars	-	-	-	28.9	57.0	84.6	111.8
Total Contribution Dollars	1,604.6	1,944.5	2,416.6	2,981.0	3,461.5	3,724.6	4,018.9
General Fund Amount (adj for timing) - incl. DC, if applicable	828.8	1,059.2	1,315.1	1,638.4	1,937.9	2,134.0	2,308.4
Risk Metrics							
Benefit Payments in upcoming year	5,667.3	5,866.9	6,100.6	6,315.3	6,518.3	6,704.0	6,874.9
As a Percent of Market Value	11.07%	12.09%	12.52%	12.86%	13.09%	13.17%	13.12%
Market Value/Benefit Payment Ratio	9.0	8.3	8.0	7.8	7.6	7.6	7.6

This work product was prepared solely for PA Budget Office for purposes described herein and may not be appropriate for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work.

Pennsylvania Public School Employees Retirement System

Results Summary *($ amounts shown in millions)*

Valuation Date	7/1/2018	7/1/2019	7/1/2020	7/1/2021	7/1/2022	7/1/2023	7/1/2024
Fiscal Year	2020	2021	2022	2023	2024	2025	2026
Projection Year	7	8	9	10	11	12	13
Investment Return on Market Value of Assets	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Collared Rate Increments (Use Phase-in Collars)	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
Interest Rate Assumption (Y)	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Payroll Growth Assumption	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
Percentage of Contribution paid by General Fund	58.8%	59.0%	59.2%	59.4%	59.6%	59.8%	60.0%
DC Contribution Rates							
Scenario	for Plan Change	10					

Assets and Liabilities as of Valuation Date							
Total Accrued Liability	100,608.0	102,504.6	104,376.4	106,190.1	107,954.9	109,658.2	111,329.3
Actuarial Value of Assets	56,063.6	58,002.6	60,021.0	61,649.8	63,681.6	65,926.5	68,396.2
Unfunded/(Surplus)	44,544.4	44,501.9	44,355.4	44,540.4	44,273.3	43,731.7	42,933.0
Funded Ratio on Actuarial Value Basis	55.7%	56.6%	57.5%	58.1%	59.0%	60.1%	61.4%
Market Value of Assets	54,020.7	55,856.8	57,928.6	60,093.6	62,383.8	64,842.2	67,481.7
Pension AVA/MVA Ratio	103.8%	103.8%	103.6%	102.6%	102.1%	101.7%	101.4%
Unfunded/(Surplus) on Market Value Basis	46,587.3	46,647.8	46,447.8	46,096.5	45,571.1	44,816.0	43,847.6
Funded Ratio on Market Value Basis	53.7%	54.5%	55.5%	56.6%	57.8%	59.1%	60.6%
Employer Contributions by Fiscal Year							
Unfunded Liability Rate	20.95%	20.94%	20.97%	21.17%	21.24%	21.62%	21.65%
Normal Cost Rate	3.97%	3.95%	3.94%	3.94%	3.93%	3.93%	3.91%
Actuarial Contribution Rate	24.92%	24.89%	24.91%	25.11%	25.17%	25.55%	25.56%
Collared Rate	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Final Contribution Rate	24.92%	24.89%	24.91%	25.11%	25.17%	25.55%	25.56%
DC Contribution Rate (with DB UAL Rate)	24.95%	24.94%	24.97%	25.17%	25.24%	25.62%	25.65%
Blended Contribution Rate (DB+DC)	24.93%	24.90%	24.93%	25.13%	25.19%	25.58%	25.59%
DB Contribution Dollars	4,154.4	4,273.7	4,407.1	4,581.5	4,735.8	4,960.2	5,115.1
DC Contribution Dollars	138.6	166.7	196.2	227.2	259.7	293.9	330.4
Total Contribution Dollars	4,293.0	4,440.4	4,603.3	4,808.7	4,995.5	5,254.1	5,445.5
General Fund Amount (adj for timing) - incl. DC, if applicable	2,480.7	2,597.4	2,700.2	2,824.3	2,948.5	3,101.0	3,238.0
Risk Metrics							
Benefit Payments in upcoming year	7,055.5	7,199.9	7,372.0	7,533.2	7,702.4	7,850.1	8,023.1
As a Percent of Market Value	13.06%	12.89%	12.73%	12.54%	12.35%	12.11%	11.89%
Market Value/Benefit Payment Ratio	7.7	7.8	7.9	8.0	8.1	8.3	8.4

Results Summary (*$ amounts shown in millions*)

Valuation Date / Fiscal Year / Projection Year	7/1/2025 2027 14	7/1/2026 2028 15	7/1/2027 2029 16	7/1/2028 2030 17	7/1/2029 2031 18	7/1/2030 2032 19	7/1/2031 2033 20
Investment Return on Market Value of Assets	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Collared Rate Increments (Use Phase-in Collars: Y)	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
Interest Rate Assumption	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Payroll Growth Assumption	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
Percentage of Contribution paid by General Fund	60.0%	60.0%	60.0%	60.0%	60.0%	60.0%	60.0%
DC Contribution Rates							
Scenario							
Assets and Liabilities as of Valuation Date							
Total Accrued Liability	112,935.9	114,449.2	115,845.9	117,108.3	118,215.5	119,151.6	119,875.6
Actuarial Value of Assets	71,134.9	74,071.7	77,211.9	80,557.1	84,103.3	87,867.2	91,848.4
Unfunded/(Surplus)	41,800.9	40,377.5	38,634.0	36,551.2	34,112.2	31,284.4	28,027.2
Funded Ratio on Actuarial Value Basis	63.0%	64.7%	66.7%	68.8%	71.1%	73.7%	76.6%
Market Value of Assets	70,348.7	73,376.6	76,577.0	79,963.5	83,542.6	87,329.2	91,322.3
Pension AVA/MVA Ratio	101.1%	100.9%	100.8%	100.7%	100.7%	100.6%	100.6%
Unfunded/(Surplus) on Market Value Basis	42,587.2	41,072.6	39,268.9	37,144.8	34,672.9	31,822.4	28,553.3
Funded Ratio on Market Value Basis	62.3%	64.1%	66.1%	68.3%	70.7%	73.3%	76.2%
Employer Contributions by Fiscal Year							
Unfunded Liability Rate	21.68%	21.69%	21.69%	21.68%	21.67%	21.66%	21.64%
Normal Cost Rate	3.91%	3.91%	3.90%	3.90%	3.89%	3.90%	3.90%
Actuarial Contribution Rate	25.59%	25.60%	25.59%	25.58%	25.56%	25.56%	25.54%
Collared Rate	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Final Contribution Rate	25.59%	25.60%	25.59%	25.58%	25.56%	25.56%	25.54%
DC Contribution Rate (with DB UAL Rate)	25.68%	25.69%	25.69%	25.68%	25.67%	25.66%	25.64%
Blended Contribution Rate (DB+DC)	25.63%	25.64%	25.64%	25.63%	25.62%	25.62%	25.60%
DB Contribution Dollars	5,276.1	5,436.5	5,596.7	5,759.4	5,925.1	6,096.7	6,269.4
DC Contribution Dollars	369.2	410.3	453.7	499.5	548.0	599.1	652.9
Total Contribution Dollars	5,645.3	5,846.8	6,050.4	6,258.9	6,473.1	6,695.8	6,922.3
General Fund Amount (adj for timing) - incl. DC, if applicable	3,359.7	3,480.6	3,602.8	3,727.5	3,855.5	3,988.2	4,123.9
Risk Metrics							
Benefit Payments in upcoming year	8,216.0	8,412.2	8,604.5	8,800.8	8,996.3	9,207.7	9,395.9
As a Percent of Market Value	11.68%	11.46%	11.24%	11.01%	10.77%	10.54%	10.29%
Market Value/Benefit Payment Ratio	8.6	8.7	8.9	9.1	9.3	9.5	9.7

Pennsylvania Public School Employees Retirement System

Results Summary *($ amounts shown in millions)*

Valuation Date / Fiscal Year / Projection Year	7/1/2032 2034 21	7/1/2033 2035 22	7/1/2034 2036 23	7/1/2035 2037 24	7/1/2036 2038 25	7/1/2037 2039 26	7/1/2038 2040 27
Investment Return on Market Value of Assets	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Collared Rate Increments (Use Phase-in Collars: Y)	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
Interest Rate Assumption	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Payroll Growth Assumption	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
Percentage of Contribution paid by General Fund	60.0%	60.0%	60.0%	60.0%	60.0%	60.0%	60.0%
DC Contribution Rates							
Scenario							

Assets and Liabilities as of Valuation Date							
Total Accrued Liability	120,391.2	120,686.4	120,770.1	120,578.2	120,109.3	119,336.4	118,243.8
Actuarial Value of Assets	96,086.0	100,590.3	105,403.3	110,533.2	112,616.5	113,897.2	114,645.7
Unfunded/(Surplus)	24,305.3	20,096.1	15,366.8	10,045.0	7,492.8	5,439.1	3,598.1
Funded Ratio on Actuarial Value Basis	79.8%	83.3%	87.3%	91.7%	93.8%	95.4%	97.0%
Market Value of Assets	95,564.4	100,066.9	104,872.9	109,991.5	112,059.9	113,325.0	114,058.3
Pension AVA/MVA Ratio	100.5%	100.5%	100.5%	100.5%	100.5%	100.5%	100.5%
Unfunded/(Surplus) on Market Value Basis	24,826.8	20,619.5	15,897.2	10,586.7	8,049.4	6,011.4	4,185.5
Funded Ratio on Market Value Basis	79.4%	82.9%	86.8%	91.2%	93.3%	95.0%	96.5%
Employer Contributions by Fiscal Year							
Unfunded Liability Rate	21.60%	21.57%	10.58%	7.96%	6.46%	4.99%	3.82%
Normal Cost Rate	3.89%	3.90%	3.90%	3.90%	3.90%	3.90%	3.90%
Actuarial Contribution Rate	25.49%	25.47%	14.48%	11.86%	10.36%	8.89%	7.72%
Collared Rate	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Final Contribution Rate	25.49%	25.47%	14.48%	11.86%	10.36%	8.89%	7.72%
DC Contribution Rate (with DB UAL Rate)	25.60%	25.57%	14.58%	11.96%	10.46%	8.99%	7.82%
Blended Contribution Rate (DB+DC)	25.56%	25.54%	14.55%	11.93%	10.44%	8.97%	7.80%
DB Contribution Dollars	6,440.8	6,622.4	3,526.4	2,802.0	2,382.7	1,942.0	1,572.0
DC Contribution Dollars	709.3	768.6	830.6	895.7	964.0	1,035.2	1,109.5
Total Contribution Dollars	7,150.1	7,391.0	4,357.0	3,697.7	3,346.7	2,977.2	2,681.5
General Fund Amount (adj for timing) - incl. DC, if applicable	4,260.8	4,403.6	3,143.4	2,342.5	2,079.7	1,861.6	1,672.1
Risk Metrics							
Benefit Payments in upcoming year	9,588.9	9,755.1	9,941.6	10,111.5	10,266.7	10,404.7	10,526.8
As a Percent of Market Value	10.03%	9.75%	9.48%	9.19%	9.16%	9.18%	9.23%
Market Value/Benefit Payment Ratio	10.0	10.3	10.5	10.9	10.9	10.9	10.8

Results Summary *($ amounts shown in millions)*

Valuation Date Fiscal Year Projection Year		7/1/2039 2041 28	7/1/2040 2042 29	7/1/2041 2043 30
Investment Return on Market Value of Assets		7.50%	7.50%	7.50%
Collared Rate Increments	Use Phase-in Collars	4.50%	4.50%	4.50%
Interest Rate Assumption	Y	7.50%	7.50%	7.50%
Payroll Growth Assumption		3.50%	3.50%	3.50%
Percentage of Contribution paid by General Fund		60.0%	60.0%	60.0%
DC Contribution Rates				
Scenario				

	7/1/2039	7/1/2040	7/1/2041
Assets and Liabilities as of Valuation Date			
Total Accrued Liability	116,801.6	114,979.6	112,752.3
Actuarial Value of Assets	114,813.4	114,441.2	113,534.4
Unfunded/(Surplus)	1,988.2	538.3	(782.1)
Funded Ratio on Actuarial Value Basis	98.3%	99.5%	100.7%
Market Value of Assets	114,211.9	113,827.4	112,910.4
Pension AVA/MVA Ratio	100.5%	100.5%	100.6%
Unfunded/(Surplus) on Market Value Basis	2,589.7	1,152.2	(158.1)
Funded Ratio on Market Value Basis	97.8%	99.0%	100.1%
Employer Contributions by Fiscal Year			
Unfunded Liability Rate	2.75%	1.80%	0.74%
Normal Cost Rate	3.90%	3.91%	3.91%
Actuarial Contribution Rate	6.65%	5.71%	4.65%
Collared Rate	n/a	n/a	n/a
Final Contribution Rate	6.65%	5.71%	4.65%
DC Contribution Rate (with DB UAL Rate)	6.75%	5.80%	4.74%
Blended Contribution Rate (DB+DC)	6.73%	5.79%	4.73%
DB Contribution Dollars	1,211.3	870.7	464.5
DC Contribution Dollars	1,186.1	1,264.5	1,344.8
Total Contribution Dollars	2,397.4	2,135.2	1,809.3
General Fund Amount (adj for timing) - incl. DC, if applicable	1,500.1	1,339.3	1,155.0
Risk Metrics			
Benefit Payments in upcoming year	10,636.0	10,709.3	10,723.2
As a Percent of Market Value	9.31%	9.41%	9.50%
Market Value/Benefit Payment Ratio	10.7	10.6	10.5

Results Summary (*$ amounts shown in millions*)

Valuation Date / Fiscal Year / Projection Year		12/31/2011 2013 0	12/31/2012 2014 1	12/31/2013 2015 2	12/31/2014 2016 3	12/31/2015 2017 4	12/31/2016 2018 5	12/31/2017 2019 6	12/31/2018 2020 7
Investment Return on Market Value of Assets		10.00%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Collared Rate Increments	Use Phase-in Collars	3.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
Interest Rate Assumption	N	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Payroll Growth Assmption		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percentage of Contribution paid by General Fund		41.4%	41.4%	41.4%	41.4%	41.4%	41.4%	41.4%	41.4%
DC Contribution Rates		GEN Ees	4.00%	HAZ Duty	5.50%	STP	12.20%	JUD	4.00%
Scenario		Baseline						Amortization Period for Curr Ees	

	2013	2014	2015	2016	2017	2018	2019	2020
Assets and Liabilities as of Valuation Date								
Total Accrued Liability	42,301.7	43,423.9	44,558.6	45,690.2	46,813.6	47,925.3	49,022.1	50,112.2
Actuarial Value of Assets	27,618.5	25,208.7	25,521.4	25,847.4	26,292.6	27,385.6	28,654.2	30,035.9
Unfunded/(Surplus)	14,683.3	18,215.2	19,037.2	19,842.9	20,520.9	20,539.7	20,367.9	20,076.3
Funded Ratio on Actuarial Value Basis	65.3%	58.1%	57.3%	56.6%	56.2%	57.1%	58.5%	59.9%
Market Value of Assets	24,371.4	24,935.5	25,139.7	25,590.5	26,320.5	27,360.1	28,640.5	30,031.0
Pension AVA/MVA Ratio	113.3%	101.1%	101.5%	101.0%	99.9%	100.1%	100.0%	100.0%
Unfunded/(Surplus) on Market Value Basis	17,930.3	18,488.4	19,418.9	20,099.7	20,493.1	20,565.2	20,381.6	20,081.2
Funded Ratio on Market Value Basis	57.6%	57.4%	56.4%	56.0%	56.2%	57.1%	58.4%	59.9%
Employer Contributions by Fiscal Year								
Unfunded Liability Rate	21.33%	25.11%	25.60%	26.04%	26.32%	25.82%	25.13%	24.34%
Normal Cost Rate	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%
Actuarial Contribution Rate	26.58%	30.36%	30.85%	31.29%	31.57%	31.07%	30.38%	29.59%
Collared Rate	11.50%	16.00%	20.50%	25.00%	29.50%	n/a	n/a	n/a
Final Contribution Rate	11.50%	16.00%	20.50%	25.00%	29.50%	31.07%	30.38%	29.59%
DC Contribution Rate (with DB UAL Rate)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Blended Contribution Rate (DB+DC)	11.50%	16.00%	20.50%	25.00%	29.50%	31.07%	30.38%	29.59%
DB Contribution Dollars	677.4	999.4	1,325.5	1,672.7	2,041.4	2,222.5	2,246.7	2,263.2
DC Contribution Dollars	-	-	-	-	-	-	-	-
Total Contribution Dollars	677.4	999.4	1,325.5	1,672.7	2,041.4	2,222.5	2,246.7	2,263.2
General Fund Amount (w/ DC, if applicable)	280.5	413.8	548.8	692.5	845.2	920.1	930.1	936.9
Risk Metrics								
Benefit Payments in upcoming year	2,712.8	2,813.1	2,928.9	3,045.6	3,173.1	3,306.7	3,412.3	3,529.0
As a Percent of Market Value	11.13%	11.28%	11.65%	11.90%	12.06%	12.09%	11.91%	11.75%
Market Value/Benefit Payment Ratio	9.0	8.9	8.6	8.4	8.3	8.3	8.4	8.5

Results Summary (*$ amounts shown in millions*)

Valuation Date / Fiscal Year / Projection Year	12/31/2019 2021 8	12/31/2020 2022 9	12/31/2021 2023 10	12/31/2022 2024 11	12/31/2023 2025 12	12/31/2024 2026 13	12/31/2025 2027 14	12/31/2026 2028 15
Investment Return on Market Value of Assets	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Collared Rate Increments — Use Phase-in Collars	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
Interest Rate Assumption — N	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Payroll Growth Assmption	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percentage of Contribution paid by General Fund	41.4%	41.4%	41.4%	41.4%	41.4%	41.4%	41.4%	41.4%
DC Contribution Rates	LEG	4.00%	PRK	4.00%				
Scenario	20							
Assets and Liabilities as of Valuation Date								
Total Accrued Liability	51,201.3	52,288.2	53,369.7	54,451.0	55,532.8	56,622.6	57,723.9	58,838.7
Actuarial Value of Assets	31,444.9	32,885.9	34,356.5	35,856.1	37,381.0	38,932.7	40,533.4	42,195.0
Unfunded/(Surplus)	19,756.5	19,402.3	19,013.2	18,594.9	18,151.8	17,689.8	17,190.5	16,643.7
Funded Ratio on Actuarial Value Basis	61.4%	62.9%	64.4%	65.9%	67.3%	68.8%	70.2%	71.7%
Market Value of Assets	31,443.6	32,884.8	34,356.0	35,855.9	37,380.9	38,932.7	40,533.4	42,195.0
Pension AVA/MVA Ratio	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Unfunded/(Surplus) on Market Value Basis	19,757.7	19,403.4	19,013.7	18,595.1	18,151.9	17,689.9	17,190.5	16,643.7
Funded Ratio on Market Value Basis	61.4%	62.9%	64.4%	65.8%	67.3%	68.8%	70.2%	71.7%
Employer Contributions by Fiscal Year								
Unfunded Liability Rate	23.57%	22.82%	22.09%	21.39%	20.73%	20.11%	19.51%	18.92%
Normal Cost Rate	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%
Actuarial Contribution Rate	28.82%	28.07%	27.34%	26.64%	25.98%	25.36%	24.76%	24.17%
Collared Rate	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Final Contribution Rate	28.82%	28.07%	27.34%	26.64%	25.98%	25.36%	24.76%	24.17%
DC Contribution Rate (with DB UAL Rate)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Blended Contribution Rate (DB+DC)	28.82%	28.07%	27.34%	26.64%	25.98%	25.36%	24.76%	24.17%
DB Contribution Dollars	2,279.9	2,297.0	2,313.7	2,330.6	2,349.1	2,369.4	2,390.0	2,410.2
DC Contribution Dollars	-	-	-	-	-	-	-	-
Total Contribution Dollars	2,279.9	2,297.0	2,313.7	2,330.6	2,349.1	2,369.4	2,390.0	2,410.2
General Fund Amount (w/ DC, if applicable)	943.9	951.0	957.9	964.9	972.5	980.9	989.5	997.8
Risk Metrics								
Benefit Payments in upcoming year	3,638.2	3,749.0	3,863.7	3,974.2	4,084.1	4,186.8	4,283.3	4,390.0
As a Percent of Market Value	11.57%	11.40%	11.25%	11.08%	10.93%	10.75%	10.57%	10.40%
Market Value/Benefit Payment Ratio	8.6	8.8	8.9	9.0	9.2	9.3	9.5	9.6

Pennsylvania State Employees' Retirement System

Results Summary *($ amounts shown in millions)*

Valuation Date Fiscal Year Projection Year		12/31/2027 2029 16	12/31/2028 2030 17	12/31/2029 2031 18	12/31/2030 2032 19	12/31/2031 2033 20	12/31/2032 2034 21	12/31/2033 2035 22	12/31/2034 2036 23
Investment Return on Market Value of Assets		7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Collared Rate Increments	Use Phase-in Collars	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
Interest Rate Assumption	N	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Payroll Growth Assmption		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percentage of Contribution paid by General Fund		41.4%	41.4%	41.4%	41.4%	41.4%	41.4%	41.4%	41.4%
DC Contribution Rates									
Scenario									

Assets and Liabilities as of Valuation Date								
Total Accrued Liability	59,972.9	61,130.0	62,315.1	63,533.7	64,785.6	66,076.3	67,417.0	68,814.4
Actuarial Value of Assets	43,911.6	45,696.9	47,561.6	49,512.8	51,551.7	53,687.7	55,945.5	58,329.7
Unfunded/(Surplus)	16,061.3	15,433.1	14,753.6	14,020.8	13,233.9	12,389.1	11,471.5	10,484.7
Funded Ratio on Actuarial Value Basis	73.2%	74.8%	76.3%	77.9%	79.6%	81.3%	83.0%	84.8%
Market Value of Assets	43,911.6	45,696.9	47,561.6	49,512.8	51,551.7	53,687.7	55,945.5	58,329.7
Pension AVA/MVA Ratio	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Unfunded/(Surplus) on Market Value Basis	16,061.3	15,433.1	14,753.5	14,020.9	13,233.9	12,389.1	11,471.5	10,484.7
Funded Ratio on Market Value Basis	73.2%	74.8%	76.3%	77.9%	79.6%	81.3%	83.0%	84.8%
Employer Contributions by Fiscal Year								
Unfunded Liability Rate	18.36%	17.83%	17.31%	16.81%	16.33%	15.87%	15.42%	14.99%
Normal Cost Rate	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%
Actuarial Contribution Rate	23.61%	23.08%	22.56%	22.06%	21.58%	21.12%	20.67%	20.24%
Collared Rate	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Final Contribution Rate	23.61%	23.08%	22.56%	22.06%	21.58%	21.12%	20.67%	20.24%
DC Contribution Rate (with DB UAL Rate)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Blended Contribution Rate (DB+DC)	23.61%	23.08%	22.56%	22.06%	21.58%	21.12%	20.67%	20.24%
DB Contribution Dollars	2,431.9	2,455.6	2,479.1	2,503.1	2,527.8	2,554.1	2,580.9	2,609.1
DC Contribution Dollars	-	-	-	-	-	-	-	-
Total Contribution Dollars	2,431.9	2,455.6	2,479.1	2,503.1	2,527.8	2,554.1	2,580.9	2,609.1
General Fund Amount (w/ DC, if applicable)	1,006.8	1,016.6	1,026.4	1,036.3	1,046.5	1,057.4	1,068.5	1,080.2
Risk Metrics								
Benefit Payments in upcoming year	4,488.8	4,584.6	4,680.9	4,783.1	4,883.4	4,969.3	5,061.0	5,148.4
As a Percent of Market Value	10.22%	10.03%	9.84%	9.66%	9.47%	9.26%	9.05%	8.83%
Market Value/Benefit Payment Ratio	9.8	10.0	10.2	10.4	10.6	10.8	11.1	11.3

This work product was prepared solely for PA Budget Office for purposes described herein and may not be appropriate for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work.

Results Summary (*$ amounts shown in millions*)

Valuation Date Fiscal Year Projection Year		12/31/2035 2037 24	12/31/2036 2038 25	12/31/2037 2039 26	12/31/2038 2040 27	12/31/2039 2041 28	12/31/2040 2042 29	12/31/2041 2043 30
Investment Return on Market Value of Assets		7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Collared Rate Increments	Use Phase-in Collars	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
Interest Rate Assumption	N	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Payroll Growth Assmption		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percentage of Contribution paid by General Fund		41.4%	41.4%	41.4%	41.4%	41.4%	41.4%	41.4%
DC Contribution Rates								
Scenario								

	12/31/2035	12/31/2036	12/31/2037	12/31/2038	12/31/2039	12/31/2040	12/31/2041
Assets and Liabilities as of Valuation Date							
Total Accrued Liability	70,273.1	71,801.1	73,403.1	75,090.9	76,858.5	78,705.5	80,638.2
Actuarial Value of Assets	60,856.3	63,533.8	66,370.4	69,380.9	72,570.2	75,701.8	78,578.4
Unfunded/(Surplus)	9,416.8	8,267.3	7,032.7	5,710.0	4,288.3	3,003.7	2,059.3
Funded Ratio on Actuarial Value Basis	86.6%	88.5%	90.4%	92.4%	94.4%	96.2%	97.4%
Market Value of Assets	60,856.3	63,533.8	66,370.4	69,380.9	72,570.2	75,701.8	78,578.4
Pension AVA/MVA Ratio	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Unfunded/(Surplus) on Market Value Basis	9,416.8	8,267.3	7,032.7	5,710.0	4,288.3	3,003.7	2,059.3
Funded Ratio on Market Value Basis	86.6%	88.5%	90.4%	92.4%	94.4%	96.2%	97.4%
Employer Contributions by Fiscal Year							
Unfunded Liability Rate	14.57%	14.16%	13.78%	13.42%	9.93%	7.29%	4.39%
Normal Cost Rate	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%
Actuarial Contribution Rate	19.82%	19.41%	19.03%	18.67%	15.18%	12.54%	9.64%
Collared Rate	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Final Contribution Rate	19.82%	19.41%	19.03%	18.67%	15.18%	12.54%	9.64%
DC Contribution Rate (with DB UAL Rate)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Blended Contribution Rate (DB+DC)	19.82%	19.41%	19.03%	18.67%	15.18%	12.54%	9.64%
DB Contribution Dollars	2,637.7	2,666.1	2,697.1	2,729.3	2,288.4	1,949.2	1,544.8
DC Contribution Dollars	-	-	-	-	-	-	-
Total Contribution Dollars	2,637.7	2,666.1	2,697.1	2,729.3	2,288.4	1,949.2	1,544.8
General Fund Amount (w/ DC, if applicable)	1,092.0	1,103.8	1,116.6	1,129.9	947.4	807.0	639.6
Risk Metrics							
Benefit Payments in upcoming year	5,239.4	5,334.0	5,427.3	5,531.2	5,640.5	5,750.8	5,867.9
As a Percent of Market Value	8.61%	8.40%	8.18%	7.97%	7.77%	7.60%	7.47%
Market Value/Benefit Payment Ratio	11.6	11.9	12.2	12.5	12.9	13.2	13.4

Pennsylvania State Employees' Retirement System

Results Summary (*$ amounts shown in millions*)

Valuation Date	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018
Fiscal Year	2013	2014	2015	2016	2017	2018	2019	2020
Projection Year	0	1	2	3	4	5	6	7
Investment Return on Market Value of Assets	10.00%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Collared Rate Increments — Use Phase-in Collars	3.50%	2.25%	2.75%	3.25%	3.75%	4.25%	4.50%	4.50%
Interest Rate Assumption — Y	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Payroll Growth Assmption	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percentage of Contribution paid by General Fund	41.4%	41.4%	41.4%	41.4%	41.4%	41.4%	41.4%	41.4%
DC Contribution Rates	GEN Ees	4.00%	HAZ Duty	5.50%	STP	12.20%	JUD	4.00%
Scenario	Proposed Reforms - DC Plan+Collars+TWB Limit, NY Style Limit + FAE5, Neutral Option 4, 0.5% Multiplier Reduction						Amortization Period for Curr Ees	
Assets and Liabilities as of Valuation Date								
Total Accrued Liability	42,301.7	43,423.9	41,987.1	42,864.0	43,691.3	44,453.6	45,132.6	45,751.9
Actuarial Value of Assets	27,618.5	25,208.7	25,448.5	25,557.9	25,645.3	26,237.9	26,990.7	27,875.4
Unfunded/(Surplus)	14,683.3	18,215.2	16,538.6	17,306.1	18,046.0	18,215.7	18,142.0	17,876.5
Funded Ratio on Actuarial Value Basis	65.3%	58.1%	60.6%	59.6%	58.7%	59.0%	59.8%	60.9%
Market Value of Assets	24,371.4	24,935.5	25,066.8	25,301.0	25,673.2	26,212.5	26,977.0	27,870.4
Pension AVA/MVA Ratio	113.3%	101.1%	101.5%	101.0%	99.9%	100.1%	100.1%	100.0%
Unfunded/(Surplus) on Market Value Basis	17,930.3	18,488.4	16,920.3	17,563.0	18,018.1	18,241.1	18,155.6	17,881.5
Funded Ratio on Market Value Basis	57.6%	57.4%	59.7%	59.0%	58.8%	59.0%	59.8%	60.9%
Employer Contributions by Fiscal Year								
Unfunded Liability Rate	21.33%	25.11%	21.79%	22.24%	22.65%	22.36%	21.81%	21.08%
Normal Cost Rate	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%
Actuarial Contribution Rate	26.58%	30.36%	27.04%	27.49%	27.90%	27.61%	27.06%	26.33%
Collared Rate	11.50%	13.75%	16.50%	19.75%	23.50%	n/a	n/a	n/a
Final Contribution Rate	11.50%	13.75%	16.50%	19.75%	23.50%	27.61%	27.06%	26.33%
DC Contribution Rate (with DB UAL Rate)	0.00%	0.00%	15.84%	19.12%	22.91%	27.05%	26.52%	25.80%
Blended Contribution Rate (DB+DC)	11.50%	13.75%	16.48%	19.71%	23.43%	27.52%	26.95%	26.20%
DB Contribution Dollars	677.4	858.9	1,058.8	1,296.7	1,584.4	1,915.4	1,923.5	1,917.5
DC Contribution Dollars	-	-	7.1	21.7	37.2	53.2	69.6	86.6
Total Contribution Dollars	677.4	858.9	1,065.9	1,318.4	1,621.6	1,968.6	1,993.1	2,004.1
General Fund Amount (w/ DC, if applicable)	280.5	355.6	441.2	545.8	671.3	815.0	825.1	829.7
Risk Metrics								
Benefit Payments in upcoming year	2,712.8	2,813.1	2,928.8	3,045.4	3,168.7	3,294.3	3,388.7	3,491.5
As a Percent of Market Value	11.13%	11.28%	11.68%	12.04%	12.34%	12.57%	12.56%	12.53%
Market Value/Benefit Payment Ratio	9.0	8.9	8.6	8.3	8.1	8.0	8.0	8.0

Results Summary (*$ amounts shown in millions*)

Valuation Date / Fiscal Year / Projection Year	12/31/2019 2021 8	12/31/2020 2022 9	12/31/2021 2023 10	12/31/2022 2024 11	12/31/2023 2025 12	12/31/2024 2026 13	12/31/2025 2027 14	12/31/2026 2028 15
Investment Return on Market Value of Assets	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Collared Rate Increments — Use Phase-in Collars	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
Interest Rate Assumption — Y	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Payroll Growth Assmption	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percentage of Contribution paid by General Fund	41.4%	41.4%	41.4%	41.4%	41.4%	41.4%	41.4%	41.4%
DC Contribution Rates	LEG	4.00%	PRK	4.00%				
Scenario	20							

Assets and Liabilities as of Valuation Date								
Total Accrued Liability	46,301.8	46,785.8	47,196.1	47,527.2	47,780.8	47,954.4	48,048.9	48,063.8
Actuarial Value of Assets	28,720.5	29,523.5	30,275.7	30,972.5	31,612.2	32,192.6	32,722.4	33,208.6
Unfunded/(Surplus)	17,581.3	17,262.3	16,920.4	16,554.7	16,168.6	15,761.8	15,326.5	14,855.2
Funded Ratio on Actuarial Value Basis	62.0%	63.1%	64.1%	65.2%	66.2%	67.1%	68.1%	69.1%
Market Value of Assets	28,719.2	29,522.4	30,275.2	30,972.3	31,612.1	32,192.6	32,722.4	33,208.6
Pension AVA/MVA Ratio	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Unfunded/(Surplus) on Market Value Basis	17,582.6	17,263.4	16,920.9	16,554.9	16,168.7	15,761.8	15,326.5	14,855.2
Funded Ratio on Market Value Basis	62.0%	63.1%	64.1%	65.2%	66.2%	67.1%	68.1%	69.1%
Employer Contributions by Fiscal Year								
Unfunded Liability Rate	20.35%	19.64%	18.97%	18.32%	17.70%	17.11%	16.55%	16.00%
Normal Cost Rate	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%
Actuarial Contribution Rate	25.60%	24.89%	24.22%	23.57%	22.95%	22.36%	21.80%	21.25%
Collared Rate	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Final Contribution Rate	25.60%	24.89%	24.22%	23.57%	22.95%	22.36%	21.80%	21.25%
DC Contribution Rate (with DB UAL Rate)	25.08%	24.38%	23.71%	23.06%	22.45%	21.86%	21.30%	20.76%
Blended Contribution Rate (DB+DC)	25.46%	24.73%	24.04%	23.37%	22.73%	22.13%	21.55%	20.99%
DB Contribution Dollars	1,909.6	1,900.9	1,892.3	1,882.0	1,871.1	1,860.3	1,849.9	1,838.4
DC Contribution Dollars	104.1	122.5	142.1	162.7	184.5	207.1	230.4	254.4
Total Contribution Dollars	2,013.7	2,023.4	2,034.4	2,044.7	2,055.6	2,067.4	2,080.3	2,092.8
General Fund Amount (w/ DC, if applicable)	833.7	837.7	842.2	846.4	851.0	855.9	861.3	866.4
Risk Metrics								
Benefit Payments in upcoming year	3,583.9	3,676.1	3,768.9	3,853.8	3,934.3	4,004.0	4,063.2	4,127.2
As a Percent of Market Value	12.48%	12.45%	12.45%	12.44%	12.45%	12.44%	12.42%	12.43%
Market Value/Benefit Payment Ratio	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.0

Results Summary *($ amounts shown in millions)*

Valuation Date	12/31/2027	12/31/2028	12/31/2029	12/31/2030	12/31/2031	12/31/2032	12/31/2033	12/31/2034
Fiscal Year	2029	2030	2031	2032	2033	2034	2035	2036
Projection Year	16	17	18	19	20	21	22	23
Investment Return on Market Value of Assets	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Collared Rate Increments — Use Phase-in Collars: Y	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
Interest Rate Assumption	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Payroll Growth Assmption	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percentage of Contribution paid by General Fund	41.4%	41.4%	41.4%	41.4%	41.4%	41.4%	41.4%	41.4%
DC Contribution Rates								
Scenario								
Assets and Liabilities as of Valuation Date								
Total Accrued Liability	47,994.5	47,843.5	47,614.3	47,304.9	46,908.7	46,427.9	45,874.7	45,246.3
Actuarial Value of Assets	33,642.1	34,031.4	34,381.7	34,695.2	34,969.0	35,207.9	35,428.4	35,761.0
Unfunded/(Surplus)	14,352.4	13,812.1	13,232.6	12,609.7	11,939.8	11,220.0	10,446.3	9,485.3
Funded Ratio on Actuarial Value Basis	70.1%	71.1%	72.2%	73.3%	74.5%	75.8%	77.2%	79.0%
Market Value of Assets	33,642.1	34,031.4	34,381.7	34,695.2	34,969.0	35,207.9	35,428.4	35,761.0
Pension AVA/MVA Ratio	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Unfunded/(Surplus) on Market Value Basis	14,352.4	13,812.1	13,232.6	12,609.7	11,939.7	11,220.0	10,446.3	9,485.3
Funded Ratio on Market Value Basis	70.1%	71.1%	72.2%	73.3%	74.5%	75.8%	77.2%	79.0%
Employer Contributions by Fiscal Year								
Unfunded Liability Rate	15.47%	14.96%	14.46%	13.99%	13.53%	13.08%	14.67%	14.27%
Normal Cost Rate	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%
Actuarial Contribution Rate	20.72%	20.21%	19.71%	19.24%	18.78%	18.33%	19.92%	19.52%
Collared Rate	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Final Contribution Rate	20.72%	20.21%	19.71%	19.24%	18.78%	18.33%	19.92%	19.52%
DC Contribution Rate (with DB UAL Rate)	20.24%	19.73%	19.24%	18.78%	18.33%	17.89%	19.49%	19.10%
Blended Contribution Rate (DB+DC)	20.45%	19.92%	19.42%	18.94%	18.47%	18.02%	19.61%	19.20%
DB Contribution Dollars	1,826.9	1,815.5	1,802.9	1,791.1	1,778.1	1,764.7	2,004.2	2,001.6
DC Contribution Dollars	279.1	304.4	330.7	358.0	385.9	414.5	443.8	473.7
Total Contribution Dollars	2,106.0	2,119.9	2,133.6	2,149.1	2,164.0	2,179.2	2,448.0	2,475.3
General Fund Amount (w/ DC, if applicable)	871.8	877.6	883.3	889.7	896.0	902.2	1,013.5	1,024.8
Risk Metrics								
Benefit Payments in upcoming year	4,178.5	4,221.5	4,259.0	4,296.2	4,325.2	4,334.9	4,343.7	4,341.3
As a Percent of Market Value	12.42%	12.40%	12.39%	12.38%	12.37%	12.31%	12.26%	12.14%
Market Value/Benefit Payment Ratio	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.2

Results Summary (*$ amounts shown in millions*)

Valuation Date Fiscal Year Projection Year		12/31/2035 2037 24	12/31/2036 2038 25	12/31/2037 2039 26	12/31/2038 2040 27	12/31/2039 2041 28	12/31/2040 2042 29	12/31/2041 2043 30
Investment Return on Market Value of Assets		7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Collared Rate Increments	Use Phase-in Collars	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
Interest Rate Assumption	Y	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Payroll Growth Assmption		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percentage of Contribution paid by General Fund		41.4%	41.4%	41.4%	41.4%	41.4%	41.4%	41.4%
DC Contribution Rates								
Scenario								

	12/31/2035	12/31/2036	12/31/2037	12/31/2038	12/31/2039	12/31/2040	12/31/2041
Assets and Liabilities as of Valuation Date							
Total Accrued Liability	44,548.4	43,779.6	42,939.4	42,033.0	41,054.1	40,004.2	38,896.5
Actuarial Value of Assets	36,231.2	36,721.6	37,231.9	37,774.2	38,349.2	38,720.9	38,698.0
Unfunded/(Surplus)	8,317.2	7,058.1	5,707.5	4,258.9	2,705.0	1,283.3	198.4
Funded Ratio on Actuarial Value Basis	81.3%	83.9%	86.7%	89.9%	93.4%	96.8%	99.5%
Market Value of Assets	36,231.2	36,721.6	37,231.9	37,774.2	38,349.2	38,720.9	38,698.0
Pension AVA/MVA Ratio	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Unfunded/(Surplus) on Market Value Basis	8,317.2	7,058.0	5,707.5	4,258.8	2,704.9	1,283.3	198.5
Funded Ratio on Market Value Basis	81.3%	83.9%	86.7%	89.9%	93.4%	96.8%	99.5%
Employer Contributions by Fiscal Year							
Unfunded Liability Rate	13.79%	13.33%	12.89%	12.47%	8.92%	6.21%	3.25%
Normal Cost Rate	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%
Actuarial Contribution Rate	19.04%	18.58%	18.14%	17.72%	14.17%	11.46%	8.50%
Collared Rate	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Final Contribution Rate	19.04%	18.58%	18.14%	17.72%	14.17%	11.46%	8.50%
DC Contribution Rate (with DB UAL Rate)	18.63%	18.17%	17.74%	17.33%	13.78%	11.06%	8.10%
Blended Contribution Rate (DB+DC)	18.72%	18.25%	17.81%	17.39%	13.83%	11.11%	8.14%
DB Contribution Dollars	1,986.7	1,971.7	1,956.5	1,941.5	1,452.7	1,063.3	609.3
DC Contribution Dollars	504.2	535.6	567.8	600.5	632.4	663.6	694.8
Total Contribution Dollars	2,490.9	2,507.3	2,524.3	2,542.0	2,085.1	1,726.9	1,304.1
General Fund Amount (w/ DC, if applicable)	1,031.3	1,038.1	1,045.1	1,052.4	863.2	714.9	539.9
Risk Metrics							
Benefit Payments in upcoming year	4,334.9	4,323.5	4,301.8	4,281.1	4,253.5	4,208.9	4,158.4
As a Percent of Market Value	11.96%	11.77%	11.55%	11.33%	11.09%	10.87%	10.75%
Market Value/Benefit Payment Ratio	8.4	8.5	8.7	8.8	9.0	9.2	9.3

Pennsylvania Statewide Retirement System

Summary Impact of of Various Proposed Reforms

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
	Difference in Expected General Fund Dollars due to Indicated Reform				
	($ Amounts in Millions - negative numbers represent "savings")				
	PSERS (Amounts represent about 57% - 60% of total contribution dollars)				
Tapering of Collars	(129.3)	(293.3)	(425.0)	(321.5)	(33.6)
Defined Contribution Plan for New Employees 4% ER Contribution Rate - Eff July 2014	0.0	(7.2)	(22.6)	(38.1)	(53.6)
Current Employee Reforms					
Taxable Wage Base Limit	0.0	0.0	0.1	0.1	0.1
NY Style Limit & 5-year Final Earnings	0.0	1.9	4.4	7.1	(0.4)
Neutral Option 4	0.0	3.0	7.1	11.2	(40.6)
Reduce Multiplier from 2.5% to 2%	0.0	7.2	16.6	26.1	(143.8)
Combined (will not add due to interaction of changes)	0.0	11.6	27.0	(40.5)	(284.9)
All Changes	(129.3)	(288.9)	(420.6)	(400.1)	(372.1)
All Changes - DC 2015	(129.3)	(293.3)	(420.3)	(399.7)	(371.7)
	SERS (Amounts represent 41.4% of total contribution dollars)				
Tapering of Collars	(58.2)	(107.1)	(145.4)	(171.9)	(98.3)
Defined Contribution Plan for New Employees 4% ER Contribution Rate - Eff Jan 2014	(0.4)	(1.2)	(1.9)	(2.6)	(3.3)
Current Employee Reforms					
Taxable Wage Base Limit	0.0	0.0	0.0	0.0	0.0
NY Style Limit & 5-year Final Earnings	0.0	0.0	0.0	0.0	0.0
Neutral Option 4	0.0	0.0	0.0	0.0	0.0
Reduce Multiplier from 2.5% to 2%	0.0	0.0	0.0	0.0	0.0
Combined (will not add due to interaction of changes)	0.0	0.0	0.0	0.0	0.0
Reduce multiplier for JUD, LEG and STP	0.0	0.0	0.0	0.0	(3.2)
All Changes	(58.6)	(108.3)	(147.3)	(174.5)	(104.8)
All Changes - DC 2015	(58.2)	(107.6)	(146.7)	(173.9)	(105.1)
SERS + PSERS All Changes - DC 2015	(187.5)	(400.9)	(567.0)	(573.6)	(476.8)

Notes:

Projected savings are based on market assets earning the assumed investment return of 7.5% per year.
Projections based on Millman's replication valuation of the 2011 valuation for each system updated to reflect 2012 asset values and payroll information for 2012. Assumptions based on 2011 actuarial valuations performed by respective system actuaries.
The actual impact of the proposed reforms will be determined by the respective actuaries for each system.
The models used are to help understand the pattern of emerging costs and liabilities under the systems as well as the impact of the proposed reforms.
Future funding obligations will be determined by an actuarial valuation of the systems as of the future valuation dates.
Actual plan costs will ultimately be determined by the benefits provided by the systems and not by the actuarial calculations provided in this model.

Pennsylvania Statewide Retirement System

Summary Impact of of Various Proposed Reforms

	5 Years Thru FY 2018	Next 5 Years FY 2019 - 2023	Next 10 Years FY 2024 - 2033	Next 10 Years FY 2034 - 2043	30-Year Totals Thru FY 2043
	Difference in Expected General Fund Dollars due to Indicated Reform ($ Amounts in Millions - negative numbers represent "savings")				
	PSERS (Amounts represent about 57% - 60% of total contribution dollars)				
Tapering of Collars	(1,202.7)	539.3	1,425.0	1,465.5	2,227.1
Defined Contribution Plan for New Employees 4% ER Contribution Rate - Eff July 2014	(121.5)	(116.7)	(318.1)	(625.8)	(1,182.1)
Current Employee Reforms					
Taxable Wage Base Limit	0.3	(6.4)	(9.5)	(3.2)	(18.8)
NY Style Limit & 5-year Final Earnings	13.0	(285.4)	(691.9)	(534.5)	(1,498.8)
Neutral Option 4	(19.3)	(608.8)	(1,085.1)	(684.3)	(2,397.5)
Reduce Multiplier from 2.5% to 2%	(93.9)	(1,442.5)	(2,719.6)	(2,017.1)	(6,273.1)
Combined (will not add due to interaction of changes)	(286.8)	(2,247.1)	(4,039.7)	(2,738.8)	(9,312.4)
All Changes	(1,611.0)	(1,824.5)	(2,932.8)	(1,899.1)	(8,267.4)
All Changes - DC 2015	(1,614.3)	(1,820.3)	(2,931.4)	(1,905.6)	(8,271.6)
	SERS (Amounts represent 41.4% of total contribution dollars)				
Tapering of Collars	(580.9)	289.9	579.0	560.3	848.3
Defined Contribution Plan for New Employees 4% ER Contribution Rate - Eff Jan 2014	(9.4)	(95.1)	(437.5)	(906.3)	(1,448.3)
Current Employee Reforms					
Taxable Wage Base Limit	0.0	(11.8)	(23.8)	(9.0)	(44.6)
NY Style Limit & 5-year Final Earnings	0.0	(171.1)	(341.8)	(111.1)	(624.0)
Neutral Option 4	0.0	(131.1)	(284.7)	(137.9)	(553.7)
Reduce Multiplier from 2.5% to 2%	0.0	(422.3)	(865.0)	(334.3)	(1,621.6)
Combined (will not add due to interaction of changes)	0.0	(689.5)	(1,368.0)	(442.9)	(2,500.4)
Reduce multiplier for JUD, LEG and STP	(3.2)	(55.5)	(108.1)	(32.4)	(199.2)
All Changes	(593.5)	(550.2)	(1,334.6)	(821.3)	(3,299.6)
All Changes - DC 2015	(591.5)	(551.4)	(1,338.8)	(817.0)	(3,298.7)
SERS + PSERS All Changes - DC 2015	(2,205.8)	(2,371.7)	(4,270.2)	(2,722.6)	(11,570.3)

Notes:

Projected savings are based on market assets earning the assumed investment return of 7.5% per year.
Projections based on Milliman's replication valuation of the 2011 valuation for each system updated to reflect 2012 asset values and payroll information for 2012. Assumptions based on 2011 actuarial valuations performed by respective system actuaries.
The actual impact of the proposed reforms will be determined by the respective actuaries for each system.
The models used are to help understand the pattern of emerging costs and liabilities under the systems as well as the impact of the proposed reforms.
Future funding obligations will be determined by an actuarial valuation of the systems as of the future valuation dates.
Actual plan costs will ultimately be determined by the benefits provided by the systems and not by the actuarial calculations provided in this model.

Pennsylvania State Employees' Retirement System

Results Summary *($ amounts shown in millions)*

Valuation Date Fiscal Year Projection Year		12/31/2011 2013 0	12/31/2012 2014 1	12/31/2013 2015 2	12/31/2014 2016 3	12/31/2015 2017 4	12/31/2016 2018 5	12/31/2017 2019 6	12/31/2018 2020 7
Investment Return on Market Value of Assets		10.00%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Collared Rate Increments	Use Phase-in Collars	3.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
Interest Rate Assumption	N	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Payroll Growth Assmption		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percentage of Contribution paid by General Fund		41.4%	41.4%	41.4%	41.4%	41.4%	41.4%	41.4%	41.4%
DC Contribution Rates		GEN Ees	4.00%	HAZ Duty	5.50%	STP	12.20%	JUD	4.00%
Scenario		Baseline						Amortization Period for Curr Ees	
Assets and Liabilities as of Valuation Date									
Total Accrued Liability		42,301.7	43,423.9	44,558.6	45,690.2	46,813.6	47,925.3	49,022.1	50,112.2
Actuarial Value of Assets		27,618.5	25,208.7	25,521.4	25,847.4	26,292.6	27,385.6	28,654.2	30,035.9
Unfunded/(Surplus)		14,683.3	18,215.2	19,037.2	19,842.9	20,520.9	20,539.7	20,367.9	20,076.3
Funded Ratio on Actuarial Value Basis		65.3%	58.1%	57.3%	56.6%	56.2%	57.1%	58.5%	59.9%
Market Value of Assets		24,371.4	24,935.5	25,139.7	25,590.5	26,320.5	27,360.1	28,640.5	30,031.0
Pension AVA/MVA Ratio		113.3%	101.1%	101.5%	101.0%	99.9%	100.1%	100.0%	100.0%
Unfunded/(Surplus) on Market Value Basis		17,930.3	18,488.4	19,418.9	20,099.7	20,493.1	20,565.2	20,381.6	20,081.2
Funded Ratio on Market Value Basis		57.6%	57.4%	56.4%	56.0%	56.2%	57.1%	58.4%	59.9%
Employer Contributions by Fiscal Year									
Unfunded Liability Rate		21.33%	25.11%	25.60%	26.04%	26.32%	25.82%	25.13%	24.34%
Normal Cost Rate		5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%
Actuarial Contribution Rate		26.58%	30.36%	30.85%	31.29%	31.57%	31.07%	30.38%	29.59%
Collared Rate		11.50%	16.00%	20.50%	25.00%	29.50%	n/a	n/a	n/a
Final Contribution Rate		11.50%	16.00%	20.50%	25.00%	29.50%	31.07%	30.38%	29.59%
DC Contribution Rate (with DB UAL Rate)		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Blended Contribution Rate (DB+DC)		11.50%	16.00%	20.50%	25.00%	29.50%	31.07%	30.38%	29.59%
DB Contribution Dollars		677.4	999.4	1,325.5	1,672.7	2,041.4	2,222.5	2,246.7	2,263.2
DC Contribution Dollars		-	-	-	-	-	-	-	-
Total Contribution Dollars		677.4	999.4	1,325.5	1,672.7	2,041.4	2,222.5	2,246.7	2,263.2
General Fund Amount (w/ DC, if applicable)		280.5	413.8	548.8	692.5	845.2	920.1	930.1	936.9
Risk Metrics									
Benefit Payments in upcoming year		2,712.8	2,813.1	2,928.9	3,045.6	3,173.1	3,306.7	3,412.3	3,529.0
As a Percent of Market Value		11.13%	11.28%	11.65%	11.90%	12.06%	12.09%	11.91%	11.75%
Market Value/Benefit Payment Ratio		9.0	8.9	8.6	8.4	8.3	8.3	8.4	8.5

Pennsylvania State Employees' Retirement System

Results Summary *($ amounts shown in millions)*

Valuation Date Fiscal Year Projection Year	12/31/2019 2021 8	12/31/2020 2022 9	12/31/2021 2023 10	12/31/2022 2024 11	12/31/2023 2025 12	12/31/2024 2026 13	12/31/2025 2027 14	12/31/2026 2028 15
Investment Return on Market Value of Assets	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Collared Rate Increments — Use Phase-in Collars	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
Interest Rate Assumption — N	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Payroll Growth Assmption	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percentage of Contribution paid by General Fund	41.4%	41.4%	41.4%	41.4%	41.4%	41.4%	41.4%	41.4%
DC Contribution Rates	LEG	4.00%	PRK	4.00%				
Scenario	20							

Assets and Liabilities as of Valuation Date								
Total Accrued Liability	51,201.3	52,288.2	53,369.7	54,451.0	55,532.8	56,622.6	57,723.9	58,838.7
Actuarial Value of Assets	31,444.9	32,885.9	34,356.5	35,856.1	37,381.0	38,932.7	40,533.4	42,195.0
Unfunded/(Surplus)	19,756.5	19,402.3	19,013.2	18,594.9	18,151.8	17,689.8	17,190.5	16,643.7
Funded Ratio on Actuarial Value Basis	61.4%	62.9%	64.4%	65.9%	67.3%	68.8%	70.2%	71.7%
Market Value of Assets	31,443.6	32,884.8	34,356.0	35,855.9	37,380.9	38,932.7	40,533.4	42,195.0
Pension AVA/MVA Ratio	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Unfunded/(Surplus) on Market Value Basis	19,757.7	19,403.4	19,013.7	18,595.1	18,151.9	17,689.9	17,190.5	16,643.7
Funded Ratio on Market Value Basis	61.4%	62.9%	64.4%	65.8%	67.3%	68.8%	70.2%	71.7%
Employer Contributions by Fiscal Year								
Unfunded Liability Rate	23.57%	22.82%	22.09%	21.39%	20.73%	20.11%	19.51%	18.92%
Normal Cost Rate	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%
Actuarial Contribution Rate	28.82%	28.07%	27.34%	26.64%	25.98%	25.36%	24.76%	24.17%
Collared Rate	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Final Contribution Rate	28.82%	28.07%	27.34%	26.64%	25.98%	25.36%	24.76%	24.17%
DC Contribution Rate (with DB UAL Rate)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Blended Contribution Rate (DB+DC)	28.82%	28.07%	27.34%	26.64%	25.98%	25.36%	24.76%	24.17%
DB Contribution Dollars	2,279.9	2,297.0	2,313.7	2,330.6	2,349.1	2,369.4	2,390.0	2,410.2
DC Contribution Dollars	-	-	-	-	-	-	-	-
Total Contribution Dollars	2,279.9	2,297.0	2,313.7	2,330.6	2,349.1	2,369.4	2,390.0	2,410.2
General Fund Amount (w/ DC, if applicable)	943.9	951.0	957.9	964.9	972.5	980.9	989.5	997.8
Risk Metrics								
Benefit Payments in upcoming year	3,638.2	3,749.0	3,863.7	3,974.2	4,084.1	4,186.8	4,283.3	4,390.0
As a Percent of Market Value	11.57%	11.40%	11.25%	11.08%	10.93%	10.75%	10.57%	10.40%
Market Value/Benefit Payment Ratio	8.6	8.8	8.9	9.0	9.2	9.3	9.5	9.6

Pennsylvania State Employees' Retirement System

Results Summary *($ amounts shown in millions)*

Valuation Date	12/31/2027	12/31/2028	12/31/2029	12/31/2030	12/31/2031	12/31/2032	12/31/2033	12/31/2034
Fiscal Year	2029	2030	2031	2032	2033	2034	2035	2036
Projection Year	16	17	18	19	20	21	22	23
Investment Return on Market Value of Assets	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Collared Rate Increments — Use Phase-in Collars	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
Interest Rate Assumption — N	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Payroll Growth Assmption	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percentage of Contribution paid by General Fund	41.4%	41.4%	41.4%	41.4%	41.4%	41.4%	41.4%	41.4%
DC Contribution Rates								
Scenario								
Assets and Liabilities as of Valuation Date								
Total Accrued Liability	59,972.9	61,130.0	62,315.1	63,533.7	64,785.6	66,076.8	67,417.0	68,814.4
Actuarial Value of Assets	43,911.6	45,696.9	47,561.6	49,512.8	51,551.7	53,687.7	55,945.5	58,329.7
Unfunded/(Surplus)	16,061.3	15,433.1	14,753.6	14,020.8	13,233.9	12,389.1	11,471.5	10,484.7
Funded Ratio on Actuarial Value Basis	73.2%	74.8%	76.3%	77.9%	79.6%	81.3%	83.0%	84.8%
Market Value of Assets	43,911.6	45,696.9	47,561.6	49,512.8	51,551.7	53,687.7	55,945.5	58,329.7
Pension AVA/MVA Ratio	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Unfunded/(Surplus) on Market Value Basis	16,061.3	15,433.1	14,753.5	14,020.9	13,233.9	12,389.1	11,471.5	10,484.7
Funded Ratio on Market Value Basis	73.2%	74.8%	76.3%	77.9%	79.6%	81.3%	83.0%	84.8%
Employer Contributions by Fiscal Year								
Unfunded Liability Rate	18.36%	17.83%	17.31%	16.81%	16.33%	15.87%	15.42%	14.99%
Normal Cost Rate	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%
Actuarial Contribution Rate	23.61%	23.08%	22.56%	22.06%	21.58%	21.12%	20.67%	20.24%
Collared Rate	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Final Contribution Rate	23.61%	23.08%	22.56%	22.06%	21.58%	21.12%	20.67%	20.24%
DC Contribution Rate (with DB UAL Rate)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Blended Contribution Rate (DB+DC)	23.61%	23.08%	22.56%	22.06%	21.58%	21.12%	20.67%	20.24%
DB Contribution Dollars	2,431.9	2,455.6	2,479.1	2,503.1	2,527.8	2,554.1	2,580.9	2,609.1
DC Contribution Dollars	-	-	-	-	-	-	-	-
Total Contribution Dollars	2,431.9	2,455.6	2,479.1	2,503.1	2,527.8	2,554.1	2,580.9	2,609.1
General Fund Amount (w/ DC, if applicable)	1,006.8	1,016.6	1,026.4	1,036.3	1,046.5	1,057.4	1,068.5	1,080.2
Risk Metrics								
Benefit Payments in upcoming year	4,488.8	4,584.6	4,680.9	4,783.1	4,883.4	4,969.3	5,061.0	5,148.4
As a Percent of Market Value	10.22%	10.03%	9.84%	9.66%	9.47%	9.26%	9.05%	8.83%
Market Value/Benefit Payment Ratio	9.8	10.0	10.2	10.4	10.6	10.8	11.1	11.3

Pennsylvania State Employees' Retirement System

Results Summary *($ amounts shown in millions)*

Valuation Date / Fiscal Year / Projection Year		12/31/2036 2037 24	12/31/2036 2038 25	12/31/2037 2039 26	12/31/2038 2040 27	12/31/2039 2041 28	12/31/2040 2042 29	12/31/2041 2043 30
Investment Return on Market Value of Assets		7.50%	7:50%	7.50%	7.50%	7.50%	7.50%	7.50%
Collared Rate Increments	Use Phase-in Collars	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
Interest Rate Assumption	N	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Payroll Growth Assmption		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percentage of Contribution paid by General Fund		41.4%	41.4%	41.4%	41.4%	41.4%	41.4%	41.4%
DC Contribution Rates								
Scenario								

	2037	2038	2039	2040	2041	2042	2043
Assets and Liabilities as of Valuation Date							
Total Accrued Liability	70,273.1	71,801.1	73,403.1	75,090.9	76,858.5	78,705.5	80,638.2
Actuarial Value of Assets	60,856.3	63,533.8	66,370.4	69,380.9	72,570.2	75,701.8	78,578.4
Unfunded/(Surplus)	9,416.8	8,267.3	7,032.7	5,710.0	4,288.3	3,003.7	2,059.8
Funded Ratio on Actuarial Value Basis	86.6%	88.5%	90.4%	92.4%	94.4%	96.2%	97.4%
Market Value of Assets	60,856.3	63,533.8	66,370.4	69,380.9	72,570.2	75,701.8	78,578.4
Pension AVA/MVA Ratio	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Unfunded/(Surplus) on Market Value Basis	9,416.8	8,267.3	7,032.7	5,710.0	4,288.3	3,003.7	2,059.8
Funded Ratio on Market Value Basis	86.6%	88.5%	90.4%	92.4%	94.4%	96.2%	97.4%
Employer Contributions by Fiscal Year							
Unfunded Liability Rate	14.57%	14.16%	13.78%	13.42%	9.93%	7.29%	4.39%
Normal Cost Rate	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%
Actuarial Contribution Rate	19.82%	19.41%	19.03%	18.67%	15.18%	12.54%	9.64%
Collared Rate	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Final Contribution Rate	19.82%	19.41%	19.03%	18.67%	15.18%	12.54%	9.64%
DC Contribution Rate (with DB UAL Rate)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Blended Contribution Rate (DB+DC)	19.82%	19.41%	19.03%	18.67%	15.18%	12.54%	9.64%
DB Contribution Dollars	2,637.7	2,666.1	2,697.1	2,729.3	2,288.4	1,949.2	1,544.8
DC Contribution Dollars	-	-	-	-	-	-	-
Total Contribution Dollars	2,637.7	2,666.1	2,697.1	2,729.3	2,288.4	1,949.2	1,544.8
General Fund Amount (w/ DC, if applicable)	1,092.0	1,103.8	1,116.6	1,129.9	947.4	807.0	639.6
Risk Metrics							
Benefit Payments in upcoming year	5,239.4	5,334.0	5,427.3	5,531.2	5,640.5	5,750.8	5,887.9
As a Percent of Market Value	8.61%	8.40%	8.18%	7.97%	7.77%	7.60%	7.47%
Market Value/Benefit Payment Ratio	11.6	11.9	12.2	12.5	12.9	13.2	13.4

Pennsylvania State Employees' Retirement System

Results Summary *($ amounts shown in millions)*

Valuation Date / Fiscal Year / Projection Year		12/31/2011 2013 0	12/31/2012 2014 1	12/31/2013 2015 2	12/31/2014 2016 3	12/31/2015 2017 4	12/31/2016 2018 5	12/31/2017 2019 6	12/31/2018 2020 7
Investment Return on Market Value of Assets		10.00%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Collared Rate Increments	Use Phase-In Collars	3.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
Interest Rate Assumption	N	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Payroll Growth Assmption	2.25%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percentage of Contribution paid by General Fund		41.4%	41.4%	41.4%	41.4%	41.4%	41.4%	41.4%	41.4%
DC Contribution Rates		GEN Ees	4.00%	HAZ Duty	5.50%	STP	12.20%	JUD	4.00%
Scenario		DC Plan For Future Hires - No change in collars						Amortization Period for Fut Ees Amortization Period for Curr Ees	

	2013	2014	2015	2016	2017	2018	2019	2020
Assets and Liabilities as of Valuation Date								
Total Accrued Liability	42,301.7	43,423.9	44,558.6	45,621.2	46,633.4	47,583.0	48,457.7	49,278.9
Actuarial Value of Assets	27,618.5	25,208.7	25,517.4	25,826.8	26,217.6	27,215.5	28,336.5	29,509.2
Unfunded/(Surplus)	14,683.3	18,215.2	19,041.2	19,794.4	20,415.8	20,367.6	20,121.1	19,769.7
Funded Ratio on Actuarial Value Basis	65.3%	58.1%	57.3%	56.6%	56.2%	57.2%	58.5%	59.9%
Market Value of Assets	24,371.4	24,935.5	25,135.7	25,569.8	26,245.5	27,190.0	28,322.8	29,504.2
Pension AVA/MVA Ratio	113.3%	101.1%	101.5%	101.0%	99.9%	100.1%	100.0%	100.0%
Unfunded/(Surplus) on Market Value Basis	17,930.3	18,488.4	19,422.9	20,051.4	20,387.9	20,393.0	20,134.9	19,774.7
Funded Ratio on Market Value Basis	57.6%	57.4%	56.4%	56.0%	56.3%	57.1%	58.4%	59.9%
Employer Contributions by Fiscal Year								
Unfunded Liability Rate	21.33%	25.11%	25.60%	25.98%	26.19%	25.62%	24.84%	24.00%
Normal Cost Rate	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%
Actuarial Contribution Rate	26.58%	30.36%	30.85%	31.23%	31.44%	30.87%	30.09%	29.25%
Collared Rate	11.50%	16.00%	20.50%	25.00%	29.50%	n/a	n/a	n/a
Final Contribution Rate	11.50%	16.00%	20.50%	25.00%	29.50%	30.87%	30.09%	29.25%
DC Contribution Rate (with DB UAL Rate)	0.00%	15.37%	19.87%	24.39%	28.92%	30.32%	29.56%	28.73%
Blended Contribution Rate (DB+DC)	11.50%	15.98%	20.46%	24.93%	29.41%	30.76%	29.96%	29.10%
DB Contribution Dollars	677.4	991.7	1,301.9	1,632.6	1,984.0	2,132.9	2,131.6	2,124.5
DC Contribution Dollars	-	6.8	20.8	35.4	51.1	67.4	84.1	101.6
Total Contribution Dollars	677.4	998.5	1,322.7	1,668.0	2,035.1	2,200.3	2,215.7	2,226.1
General Fund Amount (w/ DC, if applicable)	280.5	413.3	547.6	690.6	842.6	910.9	917.3	921.5
Risk Metrics								
Benefit Payments in upcoming year	2,712.8	2,813.1	2,928.9	3,044.8	3,170.2	3,301.0	3,403.3	3,516.3
As a Percent of Market Value	11.13%	11.28%	11.65%	11.91%	12.08%	12.14%	12.02%	11.92%
Market Value/Benefit Payment Ratio	9.0	8.9	8.6	8.4	8.3	8.2	8.3	8.4

Pennsylvania State Employees' Retirement System

Results Summary *($ amounts shown in millions)*

Valuation Date Fiscal Year Projection Year		12/31/2019 2021 8	12/31/2020 2022 9	12/31/2021 2023 10	12/31/2022 2024 11	12/31/2023 2025 12	12/31/2024 2026 13	12/31/2025 2027 14	12/31/2026 2028 15
Investment Return on Market Value of Assets		7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Collared Rate Increments	Use Phase-in Collars	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
Interest Rate Assumption	N	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Payroll Growth Assmption	2.25%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percentage of Contribution paid by General Fund		41.4%	41.4%	41.4%	41.4%	41.4%	41.4%	41.4%	41.4%
DC Contribution Rates		LEG	4.00%	PRK	4.00%				
Scenario		30 20							

Assets and Liabilities as of Valuation Date								
Total Accrued Liability	50,034.9	50,725.9	51,341.7	51,875.1	52,325.1	52,686.5	52,958.4	53,139.5
Actuarial Value of Assets	30,647.2	31,749.0	32,805.1	33,808.7	34,757.0	35,646.8	36,485.6	37,279.3
Unfunded/(Surplus)	19,387.7	18,976.9	18,536.6	18,066.4	17,568.1	17,039.7	16,472.8	15,860.2
Funded Ratio on Actuarial Value Basis	61.3%	62.6%	63.9%	65.2%	66.4%	67.7%	68.9%	70.2%
Market Value of Assets	30,645.9	31,747.9	32,804.6	33,808.5	34,757.0	35,646.7	36,485.6	37,279.3
Pension AVA/MVA Ratio	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Unfunded/(Surplus) on Market Value Basis	19,389.0	18,978.0	18,537.1	18,066.6	17,568.1	17,039.8	16,472.8	15,860.2
Funded Ratio on Market Value Basis	61.2%	62.6%	63.9%	65.2%	66.4%	67.7%	68.9%	70.2%
Employer Contributions by Fiscal Year								
Unfunded Liability Rate	23.17%	22.36%	21.59%	20.85%	20.15%	19.48%	18.83%	18.20%
Normal Cost Rate	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%
Actuarial Contribution Rate	28.42%	27.61%	26.84%	26.10%	25.40%	24.73%	24.08%	23.45%
Collared Rate	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Final Contribution Rate	28.42%	27.61%	26.84%	26.10%	25.40%	24.73%	24.08%	23.45%
DC Contribution Rate (with DB UAL Rate)	27.91%	27.11%	26.34%	25.61%	24.91%	24.24%	23.60%	22.98%
Blended Contribution Rate (DB+DC)	28.26%	27.43%	26.64%	25.89%	25.17%	24.48%	23.82%	23.18%
DB Contribution Dollars	2,115.7	2,105.9	2,095.9	2,084.5	2,073.5	2,062.5	2,050.8	2,038.5
DC Contribution Dollars	119.6	138.7	158.8	180.1	202.3	225.1	248.6	272.8
Total Contribution Dollars	2,235.3	2,244.6	2,254.7	2,264.6	2,275.8	2,287.6	2,299.4	2,311.3
General Fund Amount (w/ DC, if applicable)	925.4	929.3	933.5	937.6	942.2	947.1	951.9	956.9
Risk Metrics								
Benefit Payments in upcoming year	3,622.4	3,729.4	3,839.0	3,943.0	4,044.7	4,136.5	4,218.5	4,306.9
As a Percent of Market Value	11.82%	11.75%	11.70%	11.66%	11.64%	11.60%	11.56%	11.55%
Market Value/Benefit Payment Ratio	8.5	8.5	8.5	8.6	8.6	8.6	8.6	8.7

Pennsylvania State Employees' Retirement System

Results Summary *($ amounts shown in millions)*

Valuation Date Fiscal Year Projection Year		12/31/2027 2029 16	12/31/2028 2030 17	12/31/2029 2031 18	12/31/2030 2032 19	12/31/2031 2033 20	12/31/2032 2034 21	12/31/2033 2035 22	12/31/2034 2036 23
Investment Return on Market Value of Assets		7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Collared Rate Increments	Use Phase-in Collars	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
Interest Rate Assumption	N	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Payroll Growth Assmption	2.25%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percentage of Contribution paid by General Fund		41.4%	41.4%	41.4%	41.4%	41.4%	41.4%	41.4%	41.4%
DC Contribution Rates									
Scenario									

Assets and Liabilities as of Valuation Date								
Total Accrued Liability	53,223.7	53,211.3	53,104.6	52,899.1	52,585.3	52,162.8	51,643.7	51,024.4
Actuarial Value of Assets	38,016.9	38,706.6	39,353.1	39,957.1	40,513.5	41,025.4	41,510.4	41,969.0
Unfunded/(Surplus)	15,206.8	14,504.7	13,751.5	12,942.1	12,071.8	11,137.4	10,133.3	9,055.5
Funded Ratio on Actuarial Value Basis	71.4%	72.7%	74.1%	75.5%	77.0%	78.6%	80.4%	82.3%
Market Value of Assets	38,016.9	38,706.6	39,353.1	39,957.1	40,513.5	41,025.4	41,510.4	41,969.0
Pension AVA/MVA Ratio	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Unfunded/(Surplus) on Market Value Basis	15,206.8	14,504.7	13,751.5	12,942.0	12,071.8	11,137.4	10,133.3	9,055.4
Funded Ratio on Market Value Basis	71.4%	72.7%	74.1%	75.5%	77.0%	78.6%	80.4%	82.3%
Employer Contributions by Fiscal Year								
Unfunded Liability Rate	17.60%	17.02%	16.45%	15.91%	15.38%	14.87%	14.38%	13.90%
Normal Cost Rate	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%
Actuarial Contribution Rate	22.85%	22.27%	21.70%	21.16%	20.63%	20.12%	19.63%	19.15%
Collared Rate	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Final Contribution Rate	22.85%	22.27%	21.70%	21.16%	20.63%	20.12%	19.63%	19.15%
DC Contribution Rate (with DB UAL Rate)	22.38%	21.81%	21.25%	20.72%	20.20%	19.70%	19.22%	18.75%
Blended Contribution Rate (DB+DC)	22.57%	21.98%	21.40%	20.86%	20.32%	19.81%	19.32%	18.83%
DB Contribution Dollars	2,027.0	2,015.3	2,002.3	1,989.6	1,975.5	1,961.9	1,948.9	1,935.1
DC Contribution Dollars	297.6	323.1	349.6	377.0	405.0	433.6	462.8	492.4
Total Contribution Dollars	2,324.6	2,338.4	2,351.9	2,366.6	2,380.5	2,395.5	2,411.7	2,427.5
General Fund Amount (w/ DC, if applicable)	962.4	968.2	973.6	979.8	985.6	991.7	998.5	1,005.0
Risk Metrics								
Benefit Payments in upcoming year	4,383.3	4,451.8	4,515.9	4,580.8	4,638.5	4,675.5	4,710.6	4,733.5
As a Percent of Market Value	11.53%	11.50%	11.48%	11.46%	11.45%	11.40%	11.35%	11.28%
Market Value/Benefit Payment Ratio	8.7	8.7	8.7	8.7	8.7	8.8	8.8	8.9

Pennsylvania State Employees' Retirement System

Results Summary *($ amounts shown in millions)*

Valuation Date Fiscal Year Projection Year		12/31/2035 2037 24	12/31/2036 2038 25	12/31/2037 2039 26	12/31/2038 2040 27	12/31/2039 2041 28	12/31/2040 2042 29	12/31/2041 2043 30
Investment Return on Market Value of Assets		7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Collared Rate Increments	Use Phase-in Collars	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
Interest Rate Assumption	N	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Payroll Growth Assmption	2.25%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percentage of Contribution paid by General Fund		41.4%	41.4%	41.4%	41.4%	41.4%	41.4%	41.4%
DC Contribution Rates								
Scenario								

	2037	2038	2039	2040	2041	2042	2043
Assets and Liabilities as of Valuation Date							
Total Accrued Liability	50,310.5	49,498.9	48,588.3	47,582.2	46,478.0	45,285.7	44,013.3
Actuarial Value of Assets	42,411.7	42,842.0	43,264.1	43,687.9	44,117.4	44,326.0	44,115.2
Unfunded/(Surplus)	7,898.8	6,657.0	5,324.2	3,894.3	2,360.5	959.7	(101.9)
Funded Ratio on Actuarial Value Basis	84.3%	86.6%	89.0%	91.8%	94.9%	97.9%	100.2%
Market Value of Assets	42,411.7	42,842.0	43,264.1	43,687.9	44,117.4	44,326.0	44,115.2
Pension AVA/MVA Ratio	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Unfunded/(Surplus) on Market Value Basis	7,898.8	6,656.9	5,324.2	3,894.3	2,360.6	958.7	(101.9)
Funded Ratio on Market Value Basis	84.3%	86.6%	89.0%	91.8%	94.9%	97.9%	100.2%
Employer Contributions by Fiscal Year							
Unfunded Liability Rate	13.44%	12.99%	12.56%	12.15%	8.61%	5.91%	2.95%
Normal Cost Rate	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%
Actuarial Contribution Rate	18.69%	18.24%	17.81%	17.40%	13.86%	11.16%	8.20%
Collared Rate	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Final Contribution Rate	18.69%	18.24%	17.81%	17.40%	13.86%	11.16%	8.20%
DC Contribution Rate (with DB UAL Rate)	18.29%	17.85%	17.42%	17.01%	13.47%	10.76%	7.79%
Blended Contribution Rate (DB+DC)	18.37%	17.91%	17.48%	17.06%	13.51%	10.80%	7.83%
DB Contribution Dollars	1,921.6	1,906.8	1,892.0	1,877.9	1,390.2	1,001.6	546.8
DC Contribution Dollars	522.7	553.8	585.4	616.4	646.6	677.0	707.5
Total Contribution Dollars	2,444.3	2,460.6	2,477.4	2,494.3	2,036.8	1,678.6	1,254.3
General Fund Amount (w/ DC, if applicable)	1,011.9	1,018.7	1,025.7	1,032.7	843.2	695.0	519.3
Risk Metrics							
Benefit Payments in upcoming year	4,751.8	4,764.4	4,766.0	4,764.0	4,745.0	4,714.7	4,675.3
As a Percent of Market Value	11.20%	11.12%	11.02%	10.90%	10.76%	10.64%	10.60%
Market Value/Benefit Payment Ratio	8.9	9.0	9.1	9.2	9.3	9.4	9.4

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June 25, 2013

The Honorable Warren Kampf
Commonwealth of Pennsylvania House of Representatives
P.O. Box 202157
Harrisburg, Pennsylvania 17120-2157

Dear Representative Kampf,

This written testimony is meant to comment on the transition effects of closing the state's traditional defined benefit plans and offering new employees a defined contribution plan as specified in HB 1350, HB 1352, and HB 1353. This testimony is purely of an educational nature, and should not be construed as support for or opposition to any legislation.

The plans' (SERS and PSERS) hired actuaries (Buck Consulting and Hay Group) have submitted a number of estimates for the cost/savings that would result from placing new employees in a defined contribution (DC) retirement savings plan. In each case, the actuaries, at the direction of the plans, have placed a heavy thumb on the scale in order to present a significant cost associated with a transition. For a more full handling of specific transition cost arguments, please refer to my previous note dated 6/18/2013 (attached) that was submitted as written testimony before the State Government Committee.

The primary mechanism used by actuaries to inflate the cost of a transition is the discount rate, which can have an outsized impact on the plans' valuation of their future liabilities. The plans' assert that over time it is necessary to lower the discount rate used by a closed plan because increasing benefit payments relative to assets necessitates a shift to more liquid investments. While it is certainly true that a closed plan would need to shift to more liquid investments at the very end of its existence, the plans' hired actuaries dramatically overstate the timing and magnitude of this move, providing no publicly available data to substantiate their recommendations. The discount rates used by the plans' actuaries ignore the fact that benefit payments relative to assets will be relatively constant over the projection period, a fact documented in notes provided by the actuarial firm Milliman. In other words, there is no evidence that the plans will experience any greater liquidity pressure over the projection period than they face today. When the plans eventually do need to increase liquidity, the asset base will be small, and given the small proportion of plan assets that are in illiquid investments to begin with (generally less than 25%), the effect on plan cost will be trivial. Lowering the discount rate is an easy way to inflate cost, something that actuaries generally argue vociferously against, but use to the plans' advantage in this case.

In addition to dramatically increasing their valuation of plan liabilities in future years, the plans' hired actuaries also overstate the cumulative cost/savings figures by inappropriately summing nominal dollars across the entire projection period. When comparing a time series of dollar amounts over a number of years, it is proper to adjust the yearly figures to account for the time value of money. That is, it is not appropriate to count a payment today on a dollar for dollar basis with a payment to be made many years in the future. Discounting the yearly figures makes them comparable across time on a present value basis. This is the same concept that compels the plans' to discount their future benefit payments. However, the actuaries selectively ignore this economic principle when presenting the cost of a transition. This is relevant because the majority of the increased "cost" the actuaries project is 20 years or more in the future when they arbitrarily begin to decrease the discount rate. Appropriately discounting the time series would erase much and in some cases all of the headline grabbing cost number. For example, discounting the Hay Group's

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projections for SERS at a risk free rate (4 percent) would result in a cumulative savings of $203 million, more than eliminating the claimed $3.2 billion cost.[1] Discounting Buck Consulting's projections at the same rate would reduce their claimed $33.8 billion cost to $10.2 billion.[2] In the end, summing nominal dollars is another trick of the actuarial trade that can be conveniently employed to make cost (or savings) look big.

The plans' hired actuaries also choose to ignore the downside risk of the current plan, a striking omission given that this is a significant reason Pennsylvania is considering placing new employees in a DC plan. Under the plans' assumptions, a 7.5 percent average annual investment return is the median or 50th percentile value. That is, there is a 50 percent probability that the long term average annual return is less than 7.5 percent. And the potential cost of missing this benchmark, which the plans have done in recent history, is considerably larger than the plans' estimates for transition cost. Any complete, honest projection of plan cost should provide policy makers with an understanding of the risk associated with offering a traditional defined benefit pension plan.

Well-designed defined contribution plans can reduce funding risk while also delivering a secure retirement to public workers. Defined contribution plans have served public workers in Michigan and in the higher education sector well for decades. If state policymakers choose to offer new public workers a defined contribution plan, they should specify that it include a sufficient savings rate, professionally managed, low-fee investment options, and access to lifetime income in the form of annuities.

Policymakers should not be deterred by false claims of transition cost raised by those who have a vested self-interest in maintaining the status quo. Addressing Pennsylvania's pension problem is of the utmost importance with large implications for workers and taxpayers.

I appreciate the opportunity to present testimony on the topic of transition cost.

Sincerely,

Josh B. McGee, Ph.D.
Vice President for Public Accountability
Laura and John Arnold Foundation

Attachment: McGee PA Testimony 6-18-13 Revised
Cc: Members of the Public Employee Retirement Commission

[1] Hay Group also fails to account for the fact that the terminal unfunded liability for the reformed plan is approximately $700 million less than under baseline. Properly adjusting for this would further reduce their projected cost figure.

[2] It should be noted that Buck Consulting is substantially more aggressive in reducing the discount rate, eventually using a 4.5 percent discount rate. This implies that the plan will be investing at a rate very close to the risk free rate after 2045.

Remarks to the Pennsylvania Public Employee Retirement Commission
David Draine
Senior Researcher, Pew Charitable Trusts
June 25, 2013

Good afternoon. My name is David Draine and I am a Senior Researcher at the Pew Charitable Trusts. My work has focused on state and local retirement systems and how states can improve their retirement policies. It is my pleasure to be here before you today.

Pennsylvania's two state-wide pension plans have a combined pension debt of more than $47 billion and the state has missed making the full actuarial payments since 2004. Right now Pennsylvania policymakers are borrowing from workers and taxpayers to pay their bills. As a whole, the 50 states have racked up a pension debt of $757 billion based on the latest numbers. And while states like North Carolina have been relatively good about paying their pension bills, states like Illinois, Hawaii, and Pennsylvania all are facing escalating unfunded liabilities and have failed to keep up with fiscally sound contributions.

Pennsylvania in particular is a case study of how a state can get into trouble. Fully-funded as recently as 2002, the state's pension plans are now just 64 percent funded—the result of benefit increases that were not paid for, investment assumptions that didn't materialize, and actuarial contributions that were not made. In 2010 the state and local governments participating in Pennsylvania's pension plans set aside less than a third of what was needed to pay down the pension debt over a reasonable timeframe—the worst of any of the 50 states. Pennsylvania policymakers will need to find a way to begin making the full actuarial contributions towards the state pension promises and ensure that benefits going forward will be affordable and sustainable. Without taking those steps, Pennsylvania residents will be faced with rising pension costs that will force painful tax increases, draconian cuts to services, or public sector layoffs and salary cuts. Regardless of whether or not Pennsylvania policymakers choose to institute a new retirement plan for new workers, finding a way to sustainably pay down the existing pension debt is a critical policy goal.

There are many different possible approaches to solving this problem and ultimately it will be up to lawmakers and stakeholders in Pennsylvania to decide the approach that is right for the state. My testimony today will focus on an important technical question—that of transition costs from closing a defined benefit pension plan to new hires and opening a defined contribution plan for those employees.

Under HB 1352 and HB 1353, the State Employees' Retirement System and the Public School Employees' Retirement system would be closed to new members. Current employees and retirees would continue to receive benefits under these plans but newly hired workers would instead get a defined contribution plan. As actuaries have looked at changes of this type, some have suggested that this type of switch would impose short- and long-term costs on state budgets. These costs are often referred to as transition costs.

In the actuarial analyses prepared for the state employees' and public school employees' plans, two such costs were mentioned. One is the cost of changing how unfunded liabilities are paid off following a plan closure. The second is the cost of moving plan assets to less risky investments after a pension plan has been closed. But closing a plan does not require either of those changes and these potential costs should not drive the policy debate in Pennsylvania.

Right now employers participating in Pennsylvania's state-run pension plans face a sizable unfunded liability of over $47 billion. Paying down this debt in a reasonable manner is necessary. Actuaries for pension plans have a standard approach for how to pay down such a debt—spread the costs out over time—usually 30 years—and keep the payments stable—either as a fixed percentage of a usually increasing payroll or as a fixed dollar amount. Spreading payments over 30 years prevents the cost in any one year from rising to extreme levels, though it also means that it will take decades for most states to close their funding gaps. Having contributions rise along with payroll ensures that much of the cost will be borne in the future, making a bet that Pennsylvania will be wealthier and better able to make those contributions, but it also ensures that taxpayers decades from now will be responsible for substantial payments to deal with the deficit spending of today. Having contributions as a fixed dollar amount increases costs in the short-term but reduces costs in the long-run as the debt is paid off faster, just like paying off a credit card debt or a mortgage faster saves money.

Right now Pennsylvania has set amortization payments using the fixed dollar approach for the state employees' plan and sets contributions as a fixed percentage of compensation for the public school employees' plan. Of course, the legislative collars that have been put in place prevent those actuarial contributions from being made.

Actuaries for both the state employee and public school plans have suggested that if the existing defined benefit plans are closed, it would require sped up payments by reducing the amortization period and by switching the public school plan to a fixed dollar approach. In both cases the rationale is that these payment methods are designed to spread costs across a stable or growing payroll but plan payroll will shrink once the plan is closed.

But this is incorrect. The bills being discussed—HB 1352, and 1353—explicitly call for Pennsylvania to make its pension debt payments based on the combined salary of members of the existing defined benefit and the new defined contribution plans. If an employer hires a worker who is in the defined contribution plan, the employer will still need to make a payment to help close the existing pension debt from the defined benefit plan. This is standard practice—after all, when Pennsylvania passed pension reforms in 2010, contributions in 2011 were based on the combined payroll of those who had been hired under the old rules and those who had been hired under the new rules.

The actuary for the public school plan argued that "A level percentage of pay amortization method assumes that the DB plan payroll will continue to increase, which will not be the case if the System is closed to new hires." But in fact, the bills are not assuming that the DB plan payroll will increase—they instead rely on the fact that total payroll—including the salaries of members of the DC plan—will continue to increase and that it is appropriate to allocate the contributions to pay off the pension debt across the entire workforce payroll.

This is in fact how Alaska currently pays for its pension debt following its transition to a defined contribution plan for new members. Plan actuaries in that state had similarly argued that for accounting purposes, annual payments should be calculated as fixed dollar amounts. But, as the organization that makes the accounting rules has made clear, accounting rules are not the same as funding policy. In fact, the accounting rules for pensions have been substantially changed as to make this issue moot. The critical thing is for each state to develop a plan to responsibly close their funding gap over a reasonable timeframe and stick by the necessary payments.

Closing a pension plan does not require states to suddenly speed up payments to pay for their pension debts. It also does not force states to change how they invest their pension assets. If Pennsylvania closes its defined benefit pension plans, over time it will pay out the benefits owed as the membership ages. Decades in the future, the remaining population in the plan will shrink and each year's benefit payments will take up a greater share of remaining assets. In the final years of the plan's existence, the plan may want to keep its investments in less risky and more liquid assets. But this will happen only in the last years of the plans' existence, not in the near future as claimed by the actuaries for the state employees and the public school plans. For example, the actuary for the state employee plan suggests that in 2024 the pension plan should start moving its investments into safer assets. For 2013, actuarial projections for the state employees plan estimate that benefit payments will equal 11.3 percent of plan assets. That same projection estimates that for 2024, benefit payments will be equal to 11.6 percent of plan assets. If liquidity concerns in 2024 will be so great that plan assets need to be in less risky investments than those same changes should be occurring today, regardless of any pension policies under consideration.

In 2034 and again in 2044 the plan actuary recommends moving assets to even more conservative investments. But over that period benefit payments as a proportion of plan assets decreases—by 2043 it would only take 10.6 percent of assets to make benefit payments—liquidity concerns are projected to be less of an issue then than they are today.

The actuary for the public school plan anticipates an even more drastic shift in investment policy—the analysis for the state employee plan suggests that investment return assumptions should be 6 percent by 2045 while the public school plan's actuary has investment assumptions dropping to 4.5 percent, compared to the current investment return assumption of 7.5 percent. There is no reason given for why the public school plan would need a substantially more conservative investment approach than the state employee plan. In fact, the public school plan has even less of a liquidity problem than the state employee plan. In 2013 making benefit payments for public school employees is expected to take up 11.1 percent of plan assets and in 2043 it is projected to only require 9.7 percent.

The states that have made the switch to defined contribution approaches have not modified their asset allocations nor described any plan to do so. Alaska and Michigan have in fact shifted towards greater equity and alternative investment allocations reflecting the broader trends in how state pensions have managed their assets.

So closing the existing defined benefit pension plans in Pennsylvania and replacing them with defined contribution plans will not suddenly force policymakers to rapidly increase their contribution policies nor will it force a move to lower return assets. This of course doesn't answer the question of whether such a move is right for Pennsylvania—there are upsides and downsides to any course of action. And regardless of whether Pennsylvania moves to a new plan, policymakers need to start actuarially funding the state's pensions.

Thank you for your time and for this opportunity to discuss our research. I would be happy to answer your questions.