FUNDING COST-OF-LIVING ADJUSTMENTS

A report to the General Assembly
of the Commonwealth of Pennsylvania
in Response to Senate Resolution No. 103
Adopted in the Session of 1999

Public Employee Retirement Commission
Harrisburg, Pennsylvania

FUNDING COST-OF-LIVING ADJUSTMENTS

Commonwealth of Pennsylvania
Public Employee Retirement Commission
Harrisburg, Pennsylvania

November 2000

PUBLIC EMPLOYEE RETIREMENT COMMISSION

Gubernatorial Appointees

Chairman
Mr. Paul D. Halliwell, A.S.A., F.C.A.
Consulting Actuary

Vice Chairman
Mr. A. Carville Foster
Retired Legislator

Dr. J. Richard Aronson
William L. Clayton
Professor of Business & Economics
Lehigh University

Mr. William A. Murray
Executive Vice President
The Packard Press

Legislative Appointees

Senator Jay Costa, Jr.
District 43, Allegheny County

Representative James C. Lynch
District 65, Forest, McKean,
and Warren Counties

Senator Joe Conti
District 10, Bucks County

Representative Terry E. Van Horne
District 54, Allegheny
and Westmoreland Counties

Executive Director: Anthony W. Salomone

Commission Office: 510 Finance Building
P. O. Box 1429
Harrisburg, PA 17105-1429

Telephone: (717) 783-6100
FAX: (717) 787-9531
E-Mail: perc@state.pa.us

COMMONWEALTH OF PENNSYLVANIA
PUBLIC EMPLOYEE RETIREMENT COMMISSION
HARRISBURG
17120

November 2000

To: Members of the Pennsylvania General Assembly

The attached report was prepared by the Commission in response to the direction provided by Senate Resolution Number 103, which was passed on October 26, 1999. The resolution directed the Commission to study the funding methods used for cost-of-living adjustments in the Commonwealth and other states and to report its findings and recommendations on funding cost-of-living adjustments no later than December 28, 2000.

The report presents a general discussion of the issues involved in the provision of cost-of-living adjustments, a brief commentary on the Commonwealth's past practices with respect to cost-of-living adjustments, and a summary of the survey conducted by the Commission to determine the funding practices in other states that provide cost-of-living adjustments. As directed by Senate Resolution Number 103, the report also contains the Commission's recommendations on a method for funding the liabilities incurred in the provision of future cost-of-living adjustments.

On behalf of the Commission, I hereby submit the report for your review and consideration. The Commission is hopeful that you will find it beneficial in your deliberation on this important and costly aspect of public employee retirement system administration.

Sincerely,

Paul D. Halliwell
Chairman

TABLE OF CONTENTS

Letter of Transmittal i

Table of Contents iii

Introduction v

Executive Summary vii

Part I - General Background and Discussion 1

Part II - The Commonwealth's Past Practice 15

Part III - Discussion of Survey and Findings 21

Part IV - Commission Recommendations 27

Appendix I - Draft Legislation to Implement Commission's Recommendations 33

Appendix II - Senate Resolution No. 103 53

Introduction

The Public Employee Retirement Commission was established by Act 66 of 1981 to conduct actuarial and policy analyses for proposed legislation impacting public employee retirement systems in Pennsylvania, to administer the actuarial reporting and funding requirements for the Commonwealth's 2,900 municipal pension plans, to study the Commonwealth's public retirement system operations and policies on an ongoing basis and to formulate and recommend necessary remedial legislation.

On October 26, 1999, the Senate of Pennsylvania passed Senate Resolution Number 103 directing the Public Employee Retirement Commission to undertake a study of the funding methods used by public employee retirement systems in the provision of cost-of-living increases for retired members. The Commission was directed to report its findings on the practices in other states and make recommendations on the issue to the General Assembly by December 28, 2000.

The following report represents the Commission's response to Senate Resolution Number 103. It provides a general discussion on the topic of postretirement adjustments to provide a policy context for a more detailed discussion of one type of postretirement adjustment—cost-of-living increases. The report describes the historic approach used by the Commonwealth to provide and fund cost-of-living increases for retired state and public school employees, presents the findings of the Commission regarding the practices in other states, and makes recommendations on funding future cost-of-living increases for the consideration of the General Assembly.

In preparing the report, the Commission assumed that past practice in the Commonwealth with respect to cost-of-living increases is indicative of probable future practice. This assumption allowed the Commission to derive certain elements of the Commonwealth's de facto policy on cost-of-living increases. The most clear elements of the de facto policy are that cost-of-living increases are provided on an ad hoc basis and that cost-of-living increases are provided at regular intervals. The Commission considered these two elements of the de facto policy to be fixed for the purposes of this report, permitting the scope of the study to be narrowed to address funding and other considerations within that restricted policy framework.

The Commission wishes to express its appreciation to the staffs of the public employee retirement systems that participated in the survey conducted by the Commission staff to ascertain the funding methodologies associated with cost-of-living increases in public retirement systems.

Executive Summary

Current Nationwide Practice

The Commission's survey of the major retirement systems in the fifty states shows that all of the 69 statewide public employee retirement systems have provided cost-of-living adjustments (COLAs).

Method of Implementation

Automatic - In 62% of the retirement systems, the benefit and payment schedule are predetermined in a governing statute or other plan document.

Ad Hoc - In 32% of the retirement systems, the benefit and payment schedule are at the discretion of policymakers.

Conditional - In 6% of the retirement systems, the benefit and/or payment schedule are predetermined, but implemented only if investment gains are sufficient.

Method of Determination

Formula - In 65% of the retirement systems, the benefit amount is determined by a formula, with over 80% of the formulas based on the Consumer Price Index (CPI) or some other measurement of inflation.

Fixed - In 31% of the retirement systems, the benefit amount is determined as one fixed percentage or dollar amount. The CPI is an explicit factor in one of the 21 instances where a fixed benefit was reported, but most likely the CPI was an implicit factor in setting the benefit amount in many of the other instances of a fixed benefit.

Earnings - In 4% of the retirement systems, the benefit amount is determined by the investment earnings made available, with the CPI being a factor in two of the three instances of earnings-based benefits.

Method of Funding

Direct - In 82% of the retirement systems, the costs of COLAs are funded by providing increased contributions, with variation in the timing of the contributions determining the specific method being employed.

DIRECT ADVANCE METHOD - provides for increased, actuarially determined contributions to be made pre-retirement as the means to pre-fund the COLA costs before the commencement of the benefit payments. This method was used in 61% of the retirement systems.

Current Nationwide Practice (Cont'd)

DIRECT AMORTIZATION METHOD - provides for increased contributions to be made post-retirement as the scheduled amortization payments required to fund the COLA costs over a period of years commencing concurrently with the benefit payments and ending pursuant to the schedule, which seldom extends longer than 30 years. This method was used in 16% of the retirement systems.

DIRECT PAYOUT METHOD - provides for increased contributions to be made post-retirement as variable amounts equal to the annual COLA payments, resulting in the increased contributions commencing and ending concurrently with the benefit payments, which may extend to 50 or more years. This method was used in 5% of the retirement systems.

Indirect - In 18% of the retirement systems, the costs of COLAs are funded by reallocating existing assets of the pension trust funds, with variation in the source of the reallocated assets determining the specific method being employed.

INDIRECT INVESTMENT GAINS METHOD - allocates annual or cumulative investment earnings on all or part of the pension trust fund that are above the actuarially assumed earnings to offset the COLA costs. This method was used in 9% of the retirement systems.

INDIRECT ACTUARIAL GAINS METHOD - allocates annual or cumulative actuarial gains attributable to favorable experience (investments, salary growth, mortality, etc.)to offset the COLA costs. This method was used in 9% of the retirement systems.

Current Pennsylvania Practice

The Commonwealth has provided COLAs to retired members of the State Employees' Retirement System (SERS) and the Public School Employees' Retirement System (PSERS) every four or five years beginning in 1968.

Method of Implementation

Ad Hoc - All of the prior COLAs were provided on an ad hoc basis with the benefit amounts and the implementation dates determined in each instance by discretional action of the General Assembly.

Method of Determination

Formula - All of the prior COLAs utilized a formula that was in part based on the years on retirement and the increase in the Consumer Price Index since the date of retirement or the last COLA.

Current Pennsylvania Practice (Cont'd)

Method of Funding

Direct - All of the prior COLAs used amortization payments to effect the increased contributions needed to pay the COLA costs, with the amortization payments scheduled over 20 years.

Commission Recommendations

The Commission recommends that the Commonwealth modify the method used to amortize its COLA liabilities in order to reduce the total amount of the contributions required to fund future COLAs. Specifically, the recommendations would:

- Provide for utilization of direct funding approach to ensure that the costs of future COLAs are funded with increased contributions.

  Continue use of amortization payments to fund the costs of future COLAs because amortization is the most applicable direct funding approach when COLAs are provided on an ad hoc basis.

- Provide for lower total interest payments on COLA-related debt.

  Reduce the amortization period for COLA-related debt from 20 to10 years and change amortization schedule from level percentage of payroll payments to level dollar payments.

- Provide for lower amortization costs by accumulating funding for a portion of the prospective COLA-related debt before the commencement of the COLA payments to reduce the amount of unfunded debt incurred with each future COLA.

  Implement a limited pre-funding mechanism by initiating a percentage of payroll COLA contribution rate (approx. 0.3%) as an ongoing component of the employer contribution rates of SERS and PSERS in order to pre-fund a portion (25%) of the costs incurred in the provision of future COLAs.

The Commission believes that the recommendations contained in this report represent the most efficient means for the Commonwealth to fund its COLA liabilities given adherence to its established policy of providing regular ad hoc COLAs.

PART I

GENERAL BACKGROUND AND DISCUSSION

Definition of and Reasons for Postretirement Adjustments

In the operation of a defined benefit retirement system, a formula determines the retirement benefit that is payable at the time of retirement. If the employer determines that a change in the retirement benefit is warranted after retirement occurs, the benefit augmentation, or in rare instances the benefit reduction, is termed a postretirement adjustment.

Postretirement adjustments may be made for various reasons. For discussion purposes, the reasons for postretirement adjustments may be categorized as remedial, welfare or cost-of-living. Remedial postretirement adjustments are used to correct an error in the retirement benefits provided to one group of retirees or to provide parity in the retirement benefits between two groups of retirees. Welfare postretirement adjustments are provided to remedy severe financial hardships being experienced by long-term retirees or very short service retirees. Cost-of-living postretirement adjustments, or cost-of-living increases, are utilized to address erosion in the purchasing power of retirement benefits caused by inflation.

Methods of Implementing Postretirement Adjustments

Ad Hoc Postretirement Adjustments. Postretirement adjustments may be provided either on an ad hoc basis or automatically. If the postretirement adjustment is ad hoc, it is provided one time to a fixed group of retirees that meet the eligibility requirements on the effective date of the adjustment. An ad hoc postretirement adjustment may be provided on a temporary basis, where the increase is a one-time lump sum or monthly amount payable for a finite period. An ad hoc postretirement adjustment may also be provided on a permanent basis where the increase is payable for life to the originally eligible recipients. Whether temporary or permanent, an ad hoc postretirement adjustment is implemented by taking an action which constitutes a change in the benefit provisions of the retirement system.

Because of the one-time aspect of ad hoc postretirement adjustments, they have considerable potential for flexibility in their design, which permits them to be used for

remedial, welfare or cost-of-living postretirement adjustments. However, ad hoc postretirement adjustments must be granted frequently to be used effectively for cost-of-living postretirement adjustments. And because each ad hoc cost-of-living postretirement adjustment is fashioned in a different political environment, they are subject to inconsistencies which may be unwarranted from an objective standpoint. Despite these shortcomings associated with ad hoc cost-of-living postretirement adjustments, the design flexibility of ad hoc postretirement adjustments makes their utilization for any type of postretirement adjustment appealing. The design flexibility of ad hoc postretirement adjustments may be used to target adjustments to groups with specific needs or circumstances or to fashion adjustments commensurate with the financing available to the employer.

Ad hoc postretirement adjustments are desirable from an employer perspective because of the limited duration of the benefit, which permits the predetermination of fixed costs, subject only to actuarially related deviation, in each instance. The finite nature of the costs and the discretion in the benefit amount provide the potential for the employer to match the costs to the available financing when implementing ad hoc post-retirement adjustments. Because their implementation represents a change in the benefit provisions of the retirement system, ad hoc postretirement adjustments provide limited potential for the costs incurred to be prefunded. The costs of an ad hoc postretirement adjustment are usually added to the unfunded accrued liability of the retirement system and funded prospectively by amortization payments. Since active members will receive no benefit from an ad hoc postretirement adjustment, the amortization payments are generally made exclusively by the employer.

Automatic Postretirement Adjustments. If a postretirement adjustment is automatic, it is provided on an ongoing basis, usually both to currently eligible retirees and to retirees who subsequently become eligible. An automatic postretirement adjustment may be one of a scheduled series of percentage or dollar increases, or it may be a percentage or dollar increase implemented due to the occurrence of a certain condition, such as a predefined increase in salaries or the Consumer Price Index. An automatic postretirement adjustment is implemented in the normal course of the retirement system's operation because it is provided pursuant to the existing benefit provisions of the retirement system.

Since they provide for an ongoing series of predetermined adjustments, automatic postretirement adjustments are most appropriate for use in the provision of cost-of-living postretirement adjustments, which seek to address a recurring need. Automatic postretirement adjustments eliminate the need for policymakers to revisit the same issue periodically, which can produce design inconsistencies and attendant benefit inequities. Automatic postretirement adjustments are not well suited for providing remedial or welfare postretirement adjustments that require custom design features to restrict the potential recipients consistent with the specified purpose of the adjustment. Also, because postretirement adjustments granted for remedial or welfare purposes are frequently fully effective with a single adjustment, the multiple, recurring adjustments characteristic with automatic postretirement adjustments are not necessary.

Because of the commitment to provide future adjustments, automatic postretirement adjustments do not have a finite cost. One portion of the total cost of an

automatic postretirement adjustment is attributable to service prior to the date of initial implementation, while the other portion of the cost is attributable to the future service of active employees. Although the prior service component of the cost is a finite unfunded accrued liability, the future service component is a continuing financial commitment, which may not always be easily reconciled with the available financing. However, because the continuing financial commitment is a component of the ongoing or "normal" costs of the retirement system, automatic postretirement adjustments, unlike ad hoc postretirement adjustments, have the potential to be jointly financed by the employer and the employee.

Designing Postretirement Adjustments

Statement of Purpose. The first and perhaps the most important step in the design process for a postretirement adjustment is an explicit statement of its purpose. Stating the purpose of a postretirement adjustment permits the technical design features to be fashioned in the most effective manner.

Coverage. Coverage is one of the technical design features that is very much determined by the purpose of the postretirement adjustment. In the case of a remedial postretirement adjustment, the coverage is appropriately restricted to only the retirees whose benefits were incorrectly or inequitably determined. The coverage is appropriately broad in the case of a cost-of-living postretirement adjustment because inflation impacts equally on the benefits of all retirees. Because public employee retirement systems provide a number of types of benefits with variations in the qualifications for those benefits, a decision has to be made about the types of benefit recipients to be included in the coverage of any postretirement adjustment.

The benefit recipients potentially included in a postretirement adjustment are as follows:

<u>Retirement Benefit Recipients</u>
Normal retirement benefit recipients with long service
Normal retirement benefit recipients with short service
Early retirement benefit recipients
Persons with vested rights to a deferred retirement benefit

<u>Disability Benefit Recipients</u>
Service connected disability benefit recipients
Nonservice connected disability benefit recipients

<u>Survivor Benefit Recipients</u>
Surviving spouse benefit recipients
Surviving child benefit recipients
Designated survivor benefit recipients

Depending on the purpose of the postretirement adjustment, the desired coverage may include all benefit recipients or a more restrictive group of benefit recipients. To be included in the coverage, a benefit recipient group should have the need which provided the impetus for the postretirement adjustment.

In addition to purpose, there are two secondary factors which may impact on the coverage desired for a postretirement adjustment. The most obvious of the two is cost. If the coverage of a postretirement adjustment is broad, the cost is higher than it would be if the coverage were restricted. Although it is feasible, restricting coverage as a means to reduce the cost of a postretirement adjustment may hinder achieving the desired consistency between the coverage and the stated purpose of the adjustment.

The legal environment is the other secondary factor which impacts on the coverage of a postretirement adjustment in Pennsylvania. Section 26 of Article III (Legislation) of the Pennsylvania Constitution has been interpreted as constraining the benefit recipients that may be included in a postretirement adjustment. The provision is as follows:

> Extra Compensation Prohibited; Claims against the Commonwealth; Pensions
>
> Section 26. No bill shall be passed giving any extra compensation to any public officer, servant, employee, agent or contractor, after services shall have been rendered or contract made, nor providing for the payment of any claim against the Commonwealth without previous authority of the law: Provided, however, that nothing in this Constitution shall be construed to prohibit the General Assembly from authorizing the increase of the retirement allowances or pensions of members of a retirement or pension system now in effect or hereafter legally constituted by the Commonwealth, its political subdivisions, agencies or instrumentalities, after the termination of the services of said member.

The prohibition on the extra compensation portion of the provision, which was adopted in 1874, caused a number of provisions of various municipal codes and governing laws that authorized postretirement adjustments to be invalidated prior to 1955. In 1955, the portion of the provision authorizing increases in the retirement allowances or pensions was adopted and subsequently interpreted as being restricted to former employees. As a result of the restrictive interpretation, survivor benefit recipients were precluded from receiving postretirement adjustments. In 1981, a Constitutional amendment was proposed to permit increases in the retirement allowances or pensions payable to survivor benefit recipients, but it was defeated in the statewide referendum. There was no case law on the provision until 1993 when the Commonwealth Court, interpreting The Third Class City Code together with the Constitutional provision, ruled that postretirement adjustments provided to retired employees were to be considered in determining the proportional benefits payable to their survivors. The conventional interpretation of the provision is that it excludes survivor benefit recipients from those to whom a postretirement adjustment may be granted.

Qualification Requirements. Qualification requirements are used to ensure that the postretirement adjustment is targeted only to those persons who match the purpose for the postretirement adjustment. They may also be used as a means to limit the cost of a postretirement adjustment.

The potential qualification requirements that may be imposed for a postretirement adjustment include the following:

1. Time elapsed since retirement - is a qualification most appropriately used for a cost-of-living postretirement adjustment because it ensures that there has been a significant loss in purchasing power resulting from inflation.

2. Attained age - is a qualification most appropriately used for welfare or cost-of-living postretirement adjustments because it ensures the need for the adjustment is not the result of retiring at too early an age.

3. Years of service - is a qualification most appropriately used for remedial or cost-of-living postretirement adjustments because it ensures that the adjustment is directed to longer service employees.

4. Benefit amount - is a qualification appropriate for any type of postretirement adjustment because it avoids administrative problems connected with making adjustments for small pension benefit amounts that may result in processing costs greater than the adjustment.

5. Pre-retirement salary level - is a qualification appropriate for any type of postretirement adjustment because it permits differentiation between full and part time employees.

6. Residence - is a qualification most appropriate for welfare postretirement adjustments because it ensures that any public welfare cost savings accrue within the jurisdiction.

7. Non-dependency status - is a qualification most appropriate for welfare postretirement adjustments because it ensures that the potential recipients have no alternative support.

8. Postretirement income - is a qualification most appropriate for welfare or cost-of-living postretirement adjustments because it ensures that the potential recipients rely on the pension benefits for their primary financial support.

Methods of Calculation. Some methods used to calculate the amount of postretirement adjustments are better suited to a particular postretirement adjustment purpose than others. The various ways of calculating postretirement adjustments can be classified as either proportional or non-proportional.

If a proportional method of calculating a postretirement adjustment is used, the amount of the adjustment is determined as a percentage of the benefit. A proportional

method of calculating postretirement adjustments is most appropriate in the case of a cost-of-living postretirement adjustment because of the proportional effect of inflation on all retirement benefits. Under a proportional method, the adjustments may be calculated in a simple or compound manner. “Simple” adjustments are produced when the calculation is based solely on the original pension benefit, excluding any subsequently granted postretirement adjustments. When the benefit amount used to calculate the adjustment includes the previously granted postretirement adjustments, the calculation produces "compound" adjustments. By presenting the adjusted benefit, expressed as a percentage of the original benefit, the following table demonstrates the long term impact of an annual five percent postretirement adjustment using simple and compound methodology.

TABLE I
PROGRESSION OF ORIGINAL BENEFIT RESULTING FROM SIMPLE AND COMPOUND COST-OF-LIVING INCREASES (5%) OVER A FIFTEEN YEAR PERIOD

Year	Simple Adjustment	Compound Adjustment
1	100.0%	100.0%
2	105.0%	105.0%
3	110.0%	110.3%
4	115.0%	115.8%
5	120.0%	121.6%
10	145.0%	155.1%
15	170.0%	198.0%

For both remedial and welfare postretirement adjustments, the adjustment is rarely proportional to the current benefit amount. Accordingly, a non-proportional method is most appropriate for use in calculating remedial or welfare postretirement adjustments because it permits the adjustment amounts to be differentiated, relative to the current benefit amount, in order to most effectively achieve the more narrowly focused purposes typical of these adjustments. In other words, a non-proportional method for calculating postretirement adjustments is most appropriate when the reason for the postretirement adjustment justifies targeting the adjustments to a selected group of benefit recipients. Under a non-proportional method, the amount of the adjustment may be calculated in one of a number of ways including: a flat dollar amount uniformly applied to all pension benefits; a formula to produce a flat dollar amount related to service, years on retirement, or both; a guarantee of a minimum pension benefit level; or a recalculation of pension benefits on the basis of the provisions of a subsequently granted benefit improvement. Due to the potential for differing impacts on individual benefit recipients, using a non-proportional method for calculating a cost-of-living postretirement adjustment requires careful evaluation prior to implementation to ensure that the resulting distortion is both warranted and minimized.

Actuarial Funding For Postretirement Adjustments

Granting a postretirement adjustment, like the retirement benefit itself, usually involves undertaking the functional equivalent of a long term debt. Whether a postretirement adjustment is ad hoc or automatic, its implementation usually produces

an unfunded actuarial accrued liability. If the unfunded actuarial accrued liability is not fully funded at the time of implementation, a funding methodology must be adopted.

Concurrently funding the benefit payments as they are disbursed, or "pay-as-you-go financing," avoids negative cash flow from the retirement system and represents a minimum funding requirement for any postretirement adjustment. Under pay-as-you-go financing, the contributions needed to fund the liability created by the postretirement adjustment are made over an extended period of time. Throughout the period, which is determined by the lifetime of the longest living beneficiary of the adjustment, the amount of the contributions decreases annually depending on the mortality of the recipients. In addition to shifting costs to the future, pay-as-you-go financing increases the total revenues required to finance the postretirement adjustment due to the lost potential for income on invested contributions. Numerous funding problems were associated with the use of pay-as-you-go financing by retirement systems historically, and the practice is not acceptable for private sector pension plans regulated by the federal Employee Retirement Income Security Act (ERISA).

The most appropriate funding method for a postretirement adjustment is actuarial funding. In general, actuarial funding provides for set increments of the actuarially determined costs to be financed contemporaneously with the service credit accrual under the retirement plan. For retirement benefits established before retirement occurs, actuarial funding accumulates the total financing required to provide the benefit during the working lifetimes of the active members. Since it is not possible to accumulate the required financing before retirement in the case of mid-career benefit changes or ad hoc postretirement adjustments, actuarial funding provides for the total required financing for these changes to be accumulated in an accelerated manner after the date of implementation.

Funding retirement benefits over the working lifetimes of the affected members is widely viewed by experts in this field as appropriate from the viewpoint of inter-generational equity, and it avoids the added costs associated with financing unfunded pension obligations. In the case of an automatic postretirement adjustment, the actuary determines the increase in the normal or ongoing cost of the retirement system that is necessary to incrementally provide advance funding for the future postretirement adjustments promised to current active members and the unfunded actuarial accrued liability attributable to the retired members and the prior service of active members. In the case of an ad hoc postretirement adjustment, the actuary determines only the unfunded actuarial accrued liability for current retired members because there is no commitment to provide future adjustments to current active members.

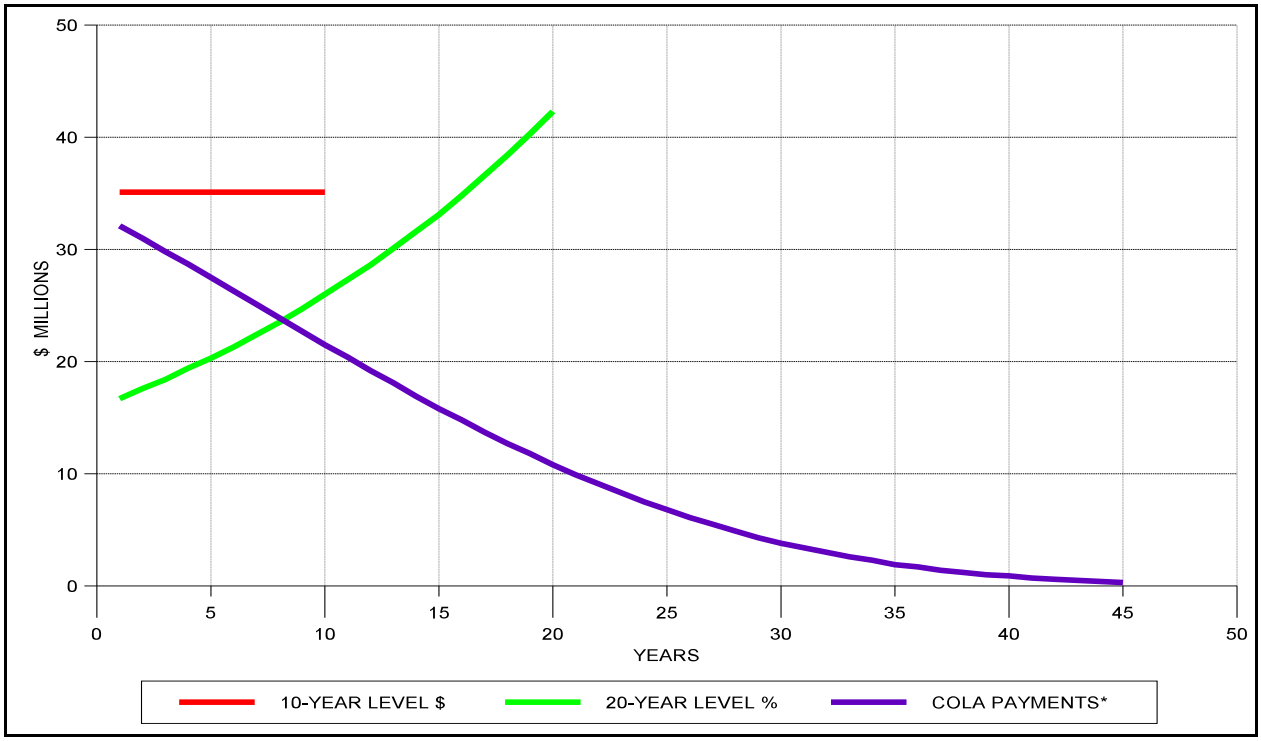
The unfunded actuarial accrued liabilities attributable to any postretirement adjustment may be funded actuarially by making one lump sum contribution equal to the full actuarial reserves required to finance the adjustment. However, since fully prefunding the actuarial accrued liabilities of a postretirement adjustment is not feasible in many instances, actuarial funding methodology also provides for a scheduled series of amortization payments to eliminate any unfunded actuarial accrued liability over a period of years.

The amortization payments for the unfunded actuarial accrued liability incurred with implementation of a postretirement adjustment are a function of the assumed interest rate and the period over which the payments are spread. Since the interest assumption of a retirement system operates to a great extent as a constant, the amortization period is the variable most frequently modified to reflect the unique cost incidence pattern associated with postretirement adjustments. The benefit payments attributable to an ad hoc postretirement adjustment decline much more rapidly than those attributable to other retirement benefits, primarily because the recipients have advanced beyond normal retirement age to varying degrees. Because of the recurring adjustments, the decline in benefit payments attributable to an automatic postretirement adjustment is less rapid than in the case of an ad hoc postretirement adjustment, but it too is more rapid than the decline in benefit payments exhibited in the case of all other retirement benefits. Accordingly, the amortization period for a postretirement adjustment must be short to minimize or eliminate the differential between the benefit payments (disbursements) and the amortization contributions (receipts) that may result in a negative cash flow from the pension fund for several years after implementation.

In addition to minimizing negative cash flow, a short amortization period for the unfunded liabilities incurred in implementing a postretirement adjustment avoids extending the amortization payments beyond the lifetimes of most or all of the currently affected recipients and is therefore consistent with the principles of actuarial funding. A short amortization period is also more consistent with the matching principle of accounting that requires that the costs of a period be matched with the revenues of that period. In the case of public employee pension benefits, the matching principle assures inter-generational equity by providing that the persons receiving the services of public employees pay for the benefits provided to those employees. From a financial standpoint, using a short amortization period reduces the amount of the contributions required to fund the liabilities of an ad hoc postretirement adjustment because the shorter period results in lower interest payments and the higher amortization payments provide the potential for increased investment gains.

The Municipal Pension Plan Funding Standard and Recovery Act, which establishes the statewide actuarial funding standard for municipal pension plans in Pennsylvania, prescribes a 10 year amortization period for unfunded liabilities of ad hoc postretirement adjustments, and the Commission has recommended legislation (Senate Bill 1082, P.N. 1314, and House Bill 1731, P.N. 2136) to establish a standard 10 year amortization period for unfunded liabilities incurred in the provision of future ad hoc postretirement adjustments by the State Employees' Retirement System (SERS) and the Public School Employees' Retirement System (PSERS).

CHART I
COMPARISON OF HYPOTHETICAL
AMORTIZATION PAYMENT SCHEDULES AND COLA PAYMENTS



* Immaterial COLA payments continue beyond 45 years.

Within the amortization period, the amortization contributions are typically scheduled as a level dollar amount or as increasing dollar amounts determined by a level percentage rate. Because it lowers the early amortization contributions and increases the later amortization contributions, a level percentage amortization schedule is contrary to one of the purposes of adopting a short amortization period — higher contributions in the years immediately following implementation of the postretirement adjustment. In comparison to a level percentage amortization schedule, a level dollar amortization schedule provides higher amortization contributions in the early years of the amortization period. (See Chart I above.) The higher amortization contributions of a level dollar amortization schedule more closely match the high initial benefit payments typical of postretirement adjustments. As a result, negative cash flow from the pension fund is much less likely to occur with utilization of a level dollar amortization schedule. However, as evidenced in Chart I, a level percentage amortization schedule may result in contributions that initially are considerably lower than the benefit payments.

Remedial Postretirement Adjustments

Remedial postretirement adjustments are provided to correct an error in the retirement benefits being provided to one group of retirees or to provide parity in the

retirement benefits between two groups of retirees. The need for a remedial postretirement adjustment usually arises because of a change that produces a disparity between the retirement benefits provided to current retirees and those provided to prior retirees. In most instances, the change results from an action taken by the government sponsoring the retirement plan, a higher level of government or a court that directly or indirectly modifies the benefit structure of the pension plan.

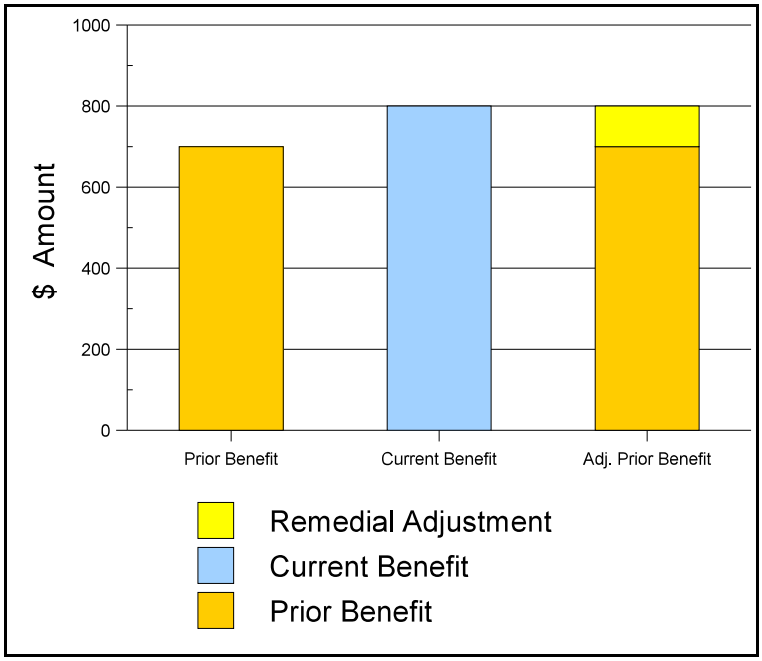


Figure 1 - Demonstration of a Remedial Postretirement Adjustment

Although remedial postretirement adjustments are infrequent in the Commonwealth, Act 167 of 1996 represents a good example. Act 167 granted a postretirement adjustment to certain pre-1984 annuitants who had military service credit that was determined to be ineligible for purchase by SERS and PSERS because it would also be used to qualify the annuitants for a military pension. Members retiring after 1984 were permitted to purchase military service credit used to qualify for a military pension because several court decisions determined that such military service could be purchased. The postretirement adjustment for each affected annuitant was calculated to produce a combined retirement benefit approximating the retirement benefit that would have been payable if the military service credit had been purchased prior to retirement. The intent of Act 167 was to address the disparity in the retirement benefits between two groups of annuitants that resulted from an indirect change in the benefit structure of the retirement systems effected by court actions.

In the consideration of remedial postretirement adjustments, the first issue policymakers must address is whether the factual circumstances support the perceived disparity in benefits between similarly situated groups of annuitants. If a disparity is shown to exist, then policymakers must determine whether the degree of injury is sufficient to warrant remedial action. The design of remedial postretirement adjustments requires that both the intended recipients and the necessary adjustment amounts be clearly defined. Because of the "once and done" aspect of remedial postretirement adjustments, they are almost always provided on an ad hoc basis.

The objective of most remedial postretirement adjustments can be achieved by retroactively applying the benefit structure change and recalculating the affected retirement benefits. However, remedial postretirement adjustments are a more appropriate means to modify the retirement benefits being paid to retired members for several reasons. Utilization of remedial postretirement adjustments does not violate the

pension policy principle that holds that retirement benefits are determined and fixed when retirement occurs. Because remedial postretirement adjustments, like all types of postretirement adjustments, are separate supplemental benefits, they do not change the amount of the original retirement benefits. Retroactively applying a benefit change necessitates recalculation of the original retirement benefits. Another reason for the use of remedial postretirement adjustments is the facility with which they can be drafted to specifically address the need and thereby permit the policymakers to more clearly focus on the issues involved. For example, policymakers are more likely to specify a shorter amortization period for the unfunded liabilities incurred in granting a remedial postretirement adjustment, which is what actuarial principles and standards prescribe for benefit increases provided to retired members, because of the fact that a postretirement adjustment is always a benefit change only applicable to retired members.

Welfare Postretirement Adjustments

Welfare postretirement adjustments are provided to ease the financial hardship of individual retirees whose incomes are insufficient to purchase subsistence necessities. In the consideration of welfare postretirement adjustments, policymakers must first determine whether retirement benefits being received are inadequate to permit the purchase of subsistence necessities. If retirement benefits are found to be below a subsistence level, policymakers must then determine if the retirement system is the appropriate source for this type of assistance.

A welfare postretirement adjustment is most commonly sought by the eldest benefit recipients who have been retired for long periods. In most instances, their retirement benefits are lower than those of similarly situated recent retirees, even if their retirement benefits have been increased by 100% of the change in the Consumer Price Index since the date of retirement. This differential exists because of the change in compensation and other standard of living factors that occurs over an extended period of time. For example, the average salary of SERS active members was approximately $3,000 in 1960. If it had been increased by 100% of the change in the Consumer Price Index between 1960 and 1990, the 1990 average salary would have been approximately $15,000. The actual average salary in 1990 was about $30,000. Since retirement benefits are directly related to compensation, it is easy to see that a 1960 retiree would be receiving about half the retirement benefits being received by a similarly classified employee who retired in 1990, even if the retirement benefits of the 1960 retiree had been adjusted by 100% of change in the Consumer Price Index. Although changes in the makeup of the workforce such as a higher percentage of technical and professional employees may account for some of the disparity shown in this example, it is clear that cost-of-living postretirement adjustments, which are designed to remedy the erosion of the purchasing power of the retirement benefits caused by inflation, do not address low retirement benefits caused by change in compensation and other standard of living factors over an extended period of retirement.

Because welfare postretirement adjustments either augment or replace other state and federal public assistance programs, their purpose has not generally been included among the commonly accepted goals of public employee retirement systems. Although the Commonwealth has not provided welfare postretirement adjustments, the last three

cost-of-living postretirement adjustments that it has implemented have included provisions to give long term retirees higher increases than short term retirees. These provisions were initiated, in large part, as a means to respond to the requests for assistance received from long term retirees receiving very low retirement benefits. Although targeting long term retirees for higher benefits within a cost-of-living adjustment is one way to address the diminishment of the relative value of retirement benefits caused by changes in compensation and other standard of living factors over time, the practice is not recommended due to the dissimilar dual policy objectives. The objective of a welfare postretirement adjustment is to address subsistence level retirement benefits caused by changes in compensation and other standard of living factors over an extended period of retirement. The objective of a cost-of-living postretirement adjustment is to address the incremental erosion of the purchasing power of retirement benefits caused by inflation. Designing one postretirement adjustment formula to meet both objectives in the most effective and efficient manner is very difficult.

Even when exclusively dedicated to addressing the welfare needs of long term retirees, the formula for a welfare postretirement adjustment is difficult to design and utilize. In order to achieve equity, a formula for a welfare postretirement adjustment calculates the amount of the postretirement adjustment based on the years on retirement. When years on retirement is the only criterion, a formula is inherently inefficient because retirees receiving retirement benefits above the subsistence level receive the same increase as those below the subsistence level. To more efficiently meet the objective of a welfare postretirement adjustment, a formula used to calculate the adjustments also has to consider the amount of the retirement benefits, or perhaps the total retirement income, of the individual retirees. Additionally, a welfare post-retirement adjustment formula must consider the length of service of the individual retirees to ensure efficiency because minimal retirement benefits may be attributable to short service rather than change in compensation and other standard of living factors.

Unless a specific subsistence amount is set to determine both the minimum and the maximum adjustment, even the most refined formula for a welfare postretirement adjustment results in both inadequate or over adequate adjustments to the retirement benefits of recipients. Accordingly, if ensuring that the retirement income of retirees with substantial service remains above a subsistence level is determined to be an appropriate retirement system function, the most efficient and effective means to effect that objective is the establishment of a minimum pension with length of service qualification requirements. Establishing a minimum pension entails setting a minimum pension per year of service for retirees with career length service and scheduling periodic reviews of the minimum pension based on both the system demographics and the change in the standard of living.

Although the benefit provisions of PSERS prescribe a minimum annual benefit equal to $100 per year of service at the time of retirement, neither SERS nor PSERS uses an ongoing minimum pension as a means to address the welfare needs of long term retirees receiving low retirement benefits relative to those provided to similarly situated recent retirees. Although more effective and efficient than a welfare postretirement adjustment formula, an ongoing minimum pension nevertheless warrants careful policy review prior to implementation because of the question of whether welfare assistance is an appropriate role for a public retirement system.

Cost-of-Living Postretirement Adjustments

Cost-of-living postretirement adjustments are granted for the purpose of maintaining the adequacy of the retirement benefits after retirement occurs. In the absence of cost-of-living postretirement adjustments, the purchasing power of the retirement benefits is diminished over time due to the effects of inflation. Because they are the most frequently requested and considered type of postretirement adjustment, cost-of-living postretirement adjustments merit additional discussion.

Rationale. One commonly accepted goal of a public employee retirement system is to provide a benefit at retirement that is adequate. The provision of cost-of-living postretirement adjustments to ensure the adequacy of the benefit throughout retirement represents a logical extension of this goal.

Measure of the Cost-of-Living. The potential measures of the change in the cost-of-living include: the Consumer Price Index, the gross domestic product deflator, the employer cost index covering compensation rates in the civilian nonfarm economy, the average increase in compensation paid to all active employees of the applicable employer or the increase in compensation paid to a particular employment position. The most widely used measure of the change in the cost-of-living for retirement benefit recipients is the Consumer Price Index, which is issued monthly by the Bureau of Labor Statistics of the United States Department of Labor.

The Consumer Price Index is a measure of the relative cost over time of a number of consumer goods, services and expenses. It has been criticized generally for a variety of reasons including: the mix and weighting of the included items, the failure to include federal and state income taxes, the failure to consider changes in the quality of goods and services over time, and the failure to adequately respond to changing consumer consumption patterns. It has been criticized specifically with respect to its utilization in determining cost-of-living postretirement adjustments because its range, mix and weighting of items does not reflect the cost-of-living realized by retirees. While there is basis for the general criticisms and a general belief that it overstates the effects of inflation on retirees, the Consumer Price Index remains the most viable average measure of the effects of increases in the cost-of-living. The ongoing efforts to adjust the methodology used to determine the Consumer Price Index, if successful, would increase the overall confidence in its validity.

The Consumer Price Index may be used as a trigger for the provision of cost-of-living postretirement adjustments. For example, if the cost-of-living increases by a certain percentage, as measured by the increase in the Consumer Price Index, a cost-of-living postretirement adjustment is provided. The Consumer Price Index may also be used as the basis for the formula used to determine the amount of any cost-of-living postretirement adjustment.

Design Considerations. The initial question in designing a cost-of-living postretirement adjustment is what measure of the change in the cost-of-living is going to be used in the formula, if any. If no measure of the cost-of-living change is used in the formula, the amount of the adjustments is determined without regard to the actual need. For example, the formula may calculate adjustments by applying a flat dollar amount

times the years on retirement, or it may specify a uniform proportional increase. If provided at regular intervals, the resulting cost-of-living postretirement adjustments are predetermined with respect to both their amount and their timing, which is viewed as desirable from a fiscal management standpoint. However, because this approach implicitly assumes future inflation at some level, it has the potential of providing adjustments during periods of no inflation or even deflation.

Using one of the potential measures of the cost-of-living change in the formula for a cost-of-living postretirement adjustment assures a relationship between the adjustments and the need. After specifying the measure, policymakers must determine what portion of the measured change in the cost-of-living is to be replaced. The decision to replace less than the full measured change may be based on the belief that the measure of the cost-of-living change overstates the effect of inflation on the benefit recipients. It may also be based on the belief that the provision of other employment-related benefits is not reflected by the measure. The employment-related benefits frequently cited as justification for providing less than the full measured change in the cost-of-living include: Social Security coverage, retirement benefit over adequacy, and health and medical insurance coverage.

The decision to replace only a portion of measured change in the cost-of-living may also be based on a desire to protect the funding stability of the retirement system and to limit the finances that must be committed to fund the adjustment. In addition to, or perhaps instead of, reducing the portion of the measured change in the cost-of-living that is replaced, imposing a cap on the potential adjustments is a design feature frequently used to limit the financial commitment associated with implementing a cost-of-living postretirement adjustment determined by the measured change in the cost-of-living. A capped formula, for example, would provide adjustments equal to one-half of the percentage change in the Consumer Price Index not to exceed 3%. The financial commitment associated with implementing a cost-of-living postretirement adjustment may also be reduced by providing that a fixed portion of the measured change in the cost-of-living be offset. Using an offset in the formula for a cost-of-living postretirement adjustment effectively addresses inflation-related erosion in the benefits above the expected or tolerable rate. For example, a formula with an offset would provide increases equal to the full percentage change in the Consumer Price Index less 2%.

The financial commitment to be incurred by implementing a cost-of-living postretirement adjustment may also be reduced by establishing a maximum benefit base, if the adjustment is proportional and therefore determined as a percentage of the original or current benefit. By providing that the adjustment amount will be calculated based on the benefit only up to a specified dollar amount, the cost of the overall adjustment is reduced, and any negative public perception of the adjustment in general is moderated because the adjustments for persons receiving high benefits are limited. However, establishing a maximum benefit base has the effect of placing a limit on the adjustment for long term employees, while not limiting the adjustment for shorter term employees, who have a greater potential to have other retirement benefit coverage. If a maximum benefit base is utilized and not in some manner automatically adjusted for inflation, it will require ongoing review and adjustment to be consistent over time.

PART II

THE COMMONWEALTH'S PAST PRACTICE

The Commonwealth initiated the provision of cost-of-living postretirement adjustments to SERS and PSERS retirees in 1968. After that initial increase, the Commonwealth implemented cost-of-living adjustments in 1974, 1979, 1984, 1989, 1994 and 1998. Table II presents the basic elements of these cost-of-living adjustments. This information, albeit limited, shows that the Commonwealth has implemented ad hoc cost-of-living adjustments every four to five years and has, in effect, established a de facto policy on how and when future cost-of-living adjustments will be provided. The remainder of this report considers the established method of implementation (ad hoc) and the utilized periodicity (four to five year intervals) to be rudimentary elements of the Commonwealth's evolving policy on cost-of-living adjustments for its two statewide public employee retirement systems. However, there are several other issues evidenced in a review of Table II that warrant brief discussion.

Absence of a Standard Design Criteria

As evidenced by the variation in the design characteristics of the previous individual cost-of-living adjustments, the Commonwealth's de facto policy on cost-of-living adjustments does not extend to the specification of design criteria. Specifying standard design criteria for cost-of-living adjustments in Pennsylvania would avoid inequities, unnecessary costs and implementation difficulties that were present with the previous cost-of-living adjustments. This process would entail developing standard design criteria for future cost-of-living adjustments based on a review of the past cost-of-living adjustments and inserting the standard design criteria in the governing statutes of SERS and PSERS. Accordingly, the legislation enacted to actually provide future cost-of-living adjustments could be limited to the ongoing issues of the timing and cost.

Mixed Purposes of Prior Cost-of-Living Adjustments

However, if the past cost-of-living adjustments are used as a basis for the development of standard design criteria for future cost-of-living adjustments, a review of Table II evidences a past practice that should not be incorporated into the standard design criteria. Many of the Commonwealth's past cost-of-living postretirement adjustments have had mixed purposes. They have had both a welfare purpose—

addressing the needs of long term retirees—and a cost-of-living purpose—addressing the effect of inflation on all retirees. The sole purpose of a cost-of-living postretirement adjustment is ameliorating the effect of inflation, which uniformly impacts all retirees. Adding a welfare purpose to a cost-of-living adjustment precludes development of design criteria that are the most effective in achieving the purpose of the cost-of-living adjustment and fails to efficiently achieve the purpose of the welfare adjustment. Separately and specifically designing future cost-of-living adjustments to achieve their singular purpose will permit standardization of the basic design criteria, which will facilitate implementation, ensure equity among retirees and increase the effectiveness of the adjustments.

TABLE II
SUMMARY OF PRIOR COST-OF-LIVING ADJUSTMENTS IN PENNSYLVANIA

COLA	DESIGN	COST (Increase in UAAL)	FUNDING	
			First Year's Amortization Payments as a % of Payroll	Funding Technique and Period
1968 COLA SERS Effective 7/1/68 PSERS Effective 7/1/67 & 1/1/69	Percentage of the monthly benefit based on year of retirement	SERS $15,066,766 PSERS $64,562,806	SERS 0.13% PSERS 0.37%	Level dollar payments over 20 years
1974 COLA SERS & PSERS Effective 7/1/74	Percentage of the monthly benefit based on year of retirement	SERS $110,000,000 PSERS $326,600,000	SERS 0.52% PSERS 0.85%	Level dollar payments over 20 years
1979 COLA SERS & PSERS Effective 7/1/79	Percentage of first $1,000 of monthly benefit based on year of retirement	SERS $225,692,242 PSERS $633,297,000	SERS 0.95% PSERS 1.69%	Level dollar payments over 20 years
1984 COLA SERS & PSERS Effective 7/1/84	Sum of: $1 x years of service +$2 x years retired +2% of first $1,000 of monthly benefit	SERS $183,510,156 PSERS $336,916,000	SERS 0.60% PSERS 0.71%	Level dollar payments over 20 years[1]
1989 COLA SERS & PSERS Effective 1/1/89	Sum of: $2 x years of service + $0.50 x years retired	SERS $243,407,631 PSERS $412,900,000	SERS 0.66% PSERS 0.65%	Level dollar payments over 20 years[1]
1994 COLA SERS & PSERS Effective 7/1/94	Percentage of first $3,000 of monthly benefit based on year of retirement with an additional increase for pre-7/1/84 retirees w/ 20 or more years	SERS $224,936,857 PSERS $499,010,000	SERS 0.53% PSERS 0.53%	Level percentage payments over 20 years[2]
1998 COLA SERS & PSERS Effective 7/1/98	Percentage of monthly benefit based on year of retirement	SERS $478,000,000 PSERS $956,799,000	SERS 0.82% PSERS 0.83%	Level percentage payments over 20 years[2]

[1] Unamortized balance refunded under Act 23 of 1991 to become level dollar payments for 20 years effective 7/1/91.

[2] Payments increase 5% a year.

Amortization Period and Approach for Prior Cost-of-Living Adjustments

Prior to the enactment of Act 23 of 1991, the unfunded actuarial accrued liabilities that were incurred in the provision of cost-of-living adjustments by SERS and PSERS were amortized on a level dollar basis over a period of 20 years. Since the enactment of Act 23 of 1991, the amortization payments have been calculated on a level percentage basis, which results in the dollar amount of the amortization payments annually increasing over the amortization period by an assumed rate. The specified rate of increase in the annual amortization payments of both SERS and PSERS is 5 percent. The level percentage basis amortization approach has the effect of lowering payments in the early years of the amortization period and increasing the payments in the later years.

Like a home mortgage payment schedule, a longer amortization payment schedule results in smaller annual amortization payments and larger total payments. As a result of the long, 20-year amortization period and the payment deferral inherent with the level percentage amortization approach, the total contributions required to fund the liabilities attributable to prior cost-of-living adjustments have been higher than necessary. For a hypothetical cost-of-living adjustment costing $500 million, which is the approximate cost of the last cost-of-living increase provided by SERS, Table III shows that the amortization payments under the Commonwealth's current amortization approach (20-year, level percentage) would exceed those under an alternative amortization approach (ten-year, level dollar) by $423,300,000.

In addition to increasing the total amount of the amortization payments, the use of a 20-year amortization period for the liabilities incurred in the provision of cost-of-living adjustments will result in the Commonwealth making four amortization payments attributable for cost-for-living adjustments simultaneously, assuming that the established five-year frequency of cost-of-living adjustments in the Commonwealth continues. This degree of compounding will occur because the amortization period implemented for each cost-of-living adjustment is four times longer than the established interval for providing cost-of-living adjustments. A shorter amortization period would reduce the potential for the compounding of amortization payments attributable to cost-of-living adjustments.

The amount of total contributions required to finance the costs associated with the cost-of-living adjustments is related to the degree of deferral involved in the funding approach. Accordingly, the continuum from least expensive to most expensive is: advance funding, short-period, level dollar amortization funding and pay-as-you-go funding. Although advance funding is not actuarially applied in instances of ad hoc cost-of-living increases, the Commonwealth could lower the amount of the unfunded liabilities to be funded by amortization through the use of a prefunding mechanism and, in effect, move its amortization funding toward the efficiencies of advance funding.

By prefunding the liabilities of cost-of-living adjustments, the Commonwealth could significantly reduce the total contributions required to finance future cost-of-living adjustments. Prefunding the costs of cost-of-living adjustments requires establishing a mechanism to implement scheduled, increased contributions. This objective could be realized by modifying the actuarial assumptions of the retirement systems to reflect the future enactment of cost-of-living adjustments and thereby increasing the ongoing

contribution requirements of the retirement systems. While advantageous from an operational standpoint, assuming the enactment of future cost-of-living adjustments would require the retirement boards to adopt assumed design provisions for the cost-of-living adjustments that may have an undue influence on the actual design provisions. This quasi-predetermination of the future cost-of-living adjustments would be contrary to variability that is viewed as a positive aspect of the ad hoc approach for cost-of-living

TABLE III
COMPARISON OF CURRENT AND ALTERNATIVE AMORTIZATION APPROACHES

Year	Cost of Retiree Increase Granted	Amortization Schedules		Difference in Amortization Payments
		Current Amortization Approach (20-year, level % of payroll)	Alternative Amortization Approach (10-year, level $)	
1	$500,000,000	$34,900,000	$73,200,000	$38,300,000
2		$36,700,000	$73,200,000	$36,500,000
3		$38,500,000	$73,200,000	$34,700,000
4		$40,400,000	$73,200,000	$32,800,000
5		$42,500,000	$73,200,000	$30,700,000
6		$44,600,000	$73,200,000	$28,600,000
7		$46,800,000	$73,200,000	$26,400,000
8		$49,200,000	$73,200,000	$24,000,000
9		$51,600,000	$73,200,000	$21,600,000
10		$54,200,000	$73,200,000	$19,000,000
11		$56,900,000		($56,900,000)
12		$59,800,000		($59,800,000)
13		$62,700,000		($62,700,000)
14		$65,900,000		($65,900,000)
15		$69,200,000		($69,200,000)
16		$72,600,000		($72,600,000)
17		$76,300,000		($76,300,000)
18		$80,100,000		($80,100,000)
19		$84,100,000		($84,100,000)
20		$88,300,000		($88,300,000)
Total	$500,000,000	$1,155,300,000	$732,000,000	($423,300,000)

adjustments. Actuarially assuming future cost-of-living adjustments would provide predictable funding requirements subject to modification only if the actual cost-of-living adjustments differed from the assumed cost-of-living adjustments and the actuarial assumptions were changed. The implementation of future cost-of-living adjustments, therefore, would not be accompanied by a resulting change in the funding requirements attributable to the individual adjustments. As a result, the use of actuarial assumptions to provide prefunding for ad hoc cost-of living adjustments would weaken the ability of policymakers and other interested parties to be aware of the costs of the individual ad hoc cost-of-living adjustments and the associated funding requirements.

Prefunding for cost-of-living adjustments could also be provided by accumulating specified, increased contributions to partially offset liabilities of future cost-of-living adjustments. The earmarked contributions would be included as a component of the annual funding requirements of the retirement systems and accumulated with interest until the next cost-of-living adjustment is implemented. A specific methodology might be as follows:

> For the purpose of calculating the COLA contribution rate, an assumed accumulation period for the COLA contributions and a targeted amount of prefunding, expressed as a percentage of the estimated future COLA liabilities, are specified in the applicable statute. After each subsequent cost-of-living adjustment is enacted, a COLA contribution rate is calculated, using 1) the specified prefunding percentage, 2) the liabilities of the last cost-of-living adjustment as an estimate of the probable liabilities of the next adjustment, 3) the established interest and salary assumptions and 4) the specified assumed accumulation period. (*Note: The specified assumed accumulation period, which is only prescribed to permit calculation of the cost-of-living contribution rate, does not restrict the policymakers' discretion in determinating when the cost-of-living adjustments are provided.*) The calculated COLA contribution rate is applied as a component of the employer contribution rate until the next cost-of-living adjustment is enacted. The COLA contributions and interest earnings accumulated at that point in time are used to offset the unfunded liabilities of that cost-of-living adjustment and thereby reduce the unfunded liabilities to be amortized.

This method of prefunding would maintain the overt determination of the costs incurred in the provision of the individual cost-of-living adjustments and allow the associated funding requirements, albeit bifurcated, to be easily known to all interested parties. Table IV shows the reduction of amortization costs that would have occurred if PSERS and SERS had implemented this form of prefunding at 0.3% commencing in fiscal year 1994-95 and terminating in fiscal year 1998-99, assuming a hypothetical cost-of-living adjustment was implemented on July 1, 1999, the prefunding contributions are made at the beginning of the year, and interest earnings at the actuarially assumed rate.

TABLE IV
FIVE-YEAR PREFUNDING ACCUMULATION AT .3% OF PAYROLL

PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM

Fiscal Year	Payroll	Prefunding Rate	Prefunding Amount	Cumulative Account Balance
1994-95	7,378,342,000	.3%	22,135,026	24,016,503
1995-96	7,616,585,000	.3%	22,849,755	50,849,890
1996-97	7,745,001,000	.3%	23,235,003	80,382,109
1997-98	8,091,481,000	.3%	24,274,443	113,552,359
1998-99	8,247,602,000	.3%	24,742,806	150,050,254
TOTAL	X X X X	X X X X	117,237,033	X X X X

IMPACT ON LIABILITY

Total COLA Liability @ ½ CPI	$757,000,000
Prefunding Accumulation	-150,050,254
Net COLA Liability	$606,949,746

IMPACT ON AMORTIZATION PAYMENTS

Total Amortization Payments For:	
Total COLA Liability	$1,977,344,055
Net COLA Liability	-1,583,859,201
Reduction in Amortization Payments	$ 393,484,854

STATE EMPLOYEES' RETIREMENT SYSTEM

Fiscal Year	Payroll	Prefunding Rate	Prefunding Amount	Cumulative Account Balance
1994-95	3,761,447,000	.3%	11,284,341	12,243,510
1995-96	3,859,845,000	.3%	11,579,535	25,848,004
1996-97	3,975,373,000	.3%	11,926,119	40,984,923
1997-98	4,013,265,000	.3%	12,039,795	57,531,819
1998-99	4,235,720,000	.3%	12,707,160	76,209,292
TOTAL	X X X X	X X X X	59,536,950	X X X X

IMPACT ON LIABILITY

Total COLA Liability @ ½ CPI	$419,000,000
Prefunding Accumulation	- 76,209,292
Net COLA Liability	$342,790,708

IMPACT ON AMORTIZATION PAYMENTS

Total Amortization Payments For:	
Total COLA Liability	$1,008,511,600
Net COLA Liability	- 824,995,555
Reduction in Amortization Payments	$ 183,516,045

PART III

DISCUSSION OF SURVEY AND FINDINGS

Description of the Survey

To determine the practices of other states in funding cost-of-living adjustments for retired public employees, the Commission conducted a telephone survey of the major public retirement systems in the fifty states. The scope of the survey was sufficient to identify the various funding approaches used for cost-of-living adjustments and determine the frequency of each of the identified funding approaches. The telephone survey was utilized for the survey to reduce the time required to obtain the survey results and to ensure a high rate of response. Also, the telephone survey permitted conversation rather than written questions and answers and thereby avoided the high probability of mis-communication given the technical nature of the survey questions.

In conducting the survey, the Commission staff identified 71 major retirement systems in the 50 states that provide retirement benefits to public employees. In some states, government and public school employees are covered by a combined retirement system, while in other states separate retirement systems are maintained for these employee groups. The retirement systems contacted were comprised of 69 defined benefit retirement systems and 2 defined contribution retirement systems. The defined contribution retirement systems do not provide cost-of-living adjustments and are not included in the following table and analysis of the survey results.

The telephone survey form consisted of three questions. The first question asked how cost-of-living adjustments, if any, are implemented. It was included in order to determine whether cost-of-living increases are provided and, if they are provided, whether they are implemented as automatic adjustments or ad hoc adjustments. The second question asked how the amounts of the cost-of-living adjustments are determined. It was included to obtain information on the mechanisms used to actually determine the cost-of-living adjustments and to elicit additional dialogue as a means to validate the responses provided to the other survey questions. The final question asked how the liabilities incurred in providing cost-of-living adjustments are funded. It was included to obtain the primary information requested in Senate Resolution Number 103.

Findings of the Survey

Table V shows that all of the 69 defined benefit state retirement systems participating in the survey have provided cost-of-living adjustments. For each retirement system, it shows the method of implementation, the method of determination, and the method of funding. The general findings are summarized and discussed as follows:

Method of Implementation. In 43 (62%) of the retirement systems, the cost-of-living adjustments are provided on an automatic basis. In most instances, the automatic cost-of-living adjustments provide annual adjustments as specified in a governing statute. Cost-of-living adjustments are provided on an ad hoc basis in 22 (32%) of the retirement systems. Ad hoc cost-of-living adjustments are provided at the discretion of a governing body, with the timing and amount of the adjustments subject to variation. The remaining 4 (6%) retirement systems provide cost-of-living adjustments on a conditional basis, meaning that they are provided on an automatic basis if certain conditions exist. In these 4 retirement systems, the provision of cost-of-living adjustments is conditioned on the sufficiency of investment gains.

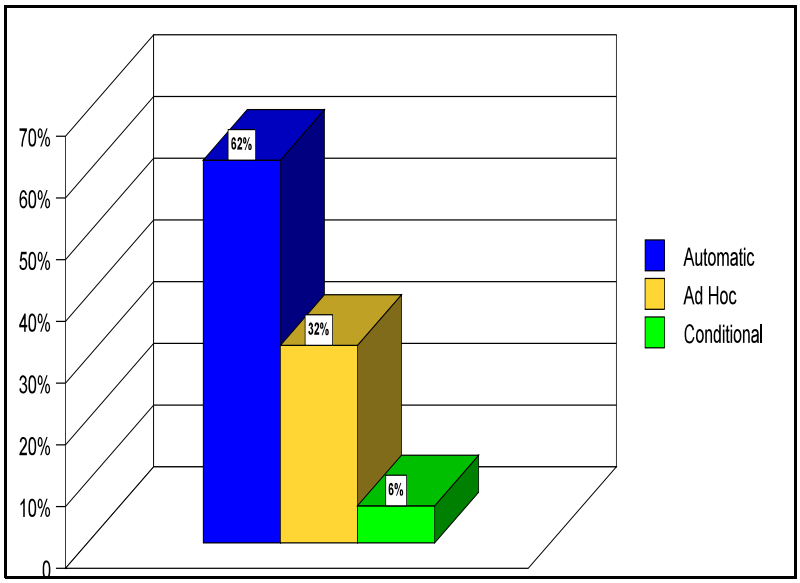


Figure 2 - COLA Implementation Methods

Method of Determination. The 69 retirement systems determine the actual amount of the cost-of-living adjustments using three broad methods, which are extensively adapted to serve the specific needs of the individual retirement systems. For the purposes of this report, the three broad methods are called formula, fixed and earnings. In 45 (65%) of the retirement systems, the formula method was used

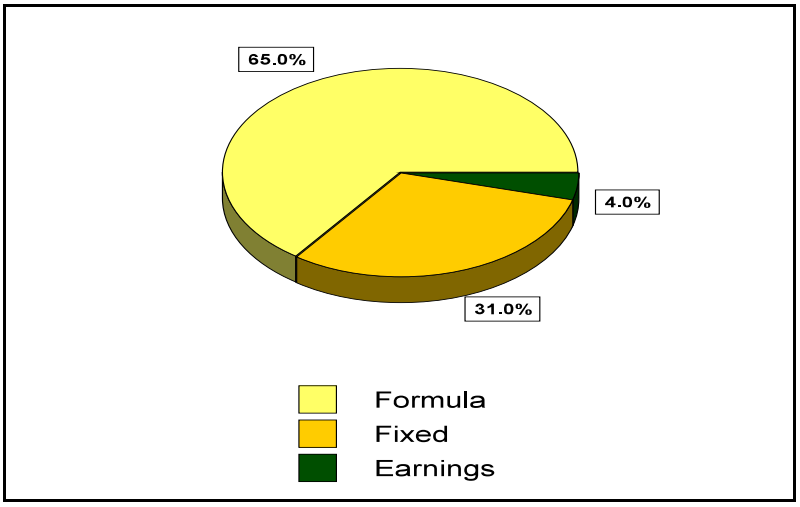


Figure 3 - COLA Determination Methods

to determine the individual cost-of-living adjustments. The specific formulas employed varied considerably, with the Consumer Price Index (CPI) being a factor in 36 of the formulas. In 21 (31%) of the retirement systems, the cost-of-living adjustments are determined as one fixed amount or percentage, with the CPI being an explicit factor in one instance and implicit in many of the other instances where cost-of-living adjustments are determined using a fixed method. The remaining 3 (4%) retirement systems determine the amount of the cost-of-living adjustments by the investment earnings made available, with the CPI being a factor in two of those retirement systems.

Method of Funding. The methods used to fund the costs incurred in providing cost-of-living postretirement adjustments vary considerably among the 69 retirement systems surveyed. The methods can be divided into those that directly fund the costs and those that indirectly fund the costs. If contributions are explicitly increased to fund the costs of the cost-of-living postretirement adjustments and the amount of the increased contributions is directly related to the costs, the method is termed "direct" for the purposes of this report. The three direct funding methods differ primarily in the timing of the contributions, and they are identified in Figure 4 and Table V as:

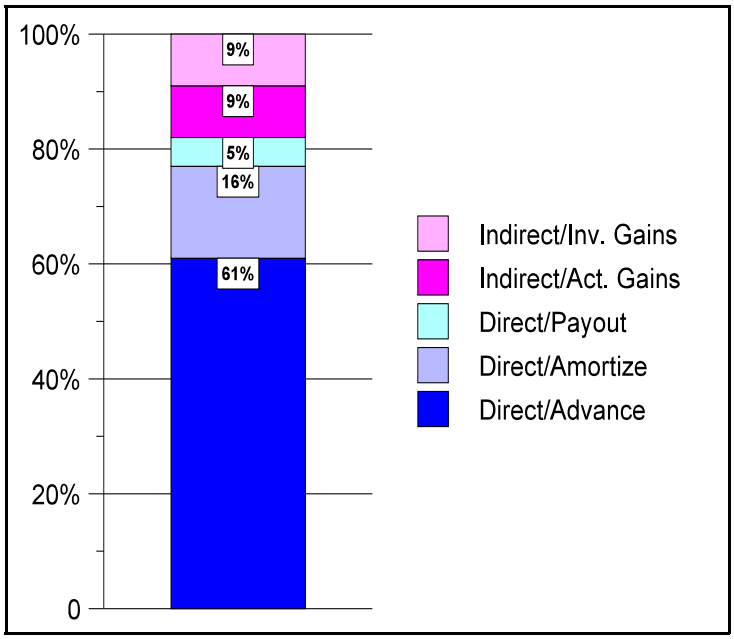


Figure 4 - COLA Funding Methods

Direct/Payout - The monies needed to make the COLA payments in a given year are contributed in that year. Since there is no externally imposed schedule for the increased contributions necessary to fund the liabilities associated with the cost-of-living adjustment, this method, which is often called "pay-as-you-go," results in a more extended and less predictable contribution than the direct/amortization method. Four retirement systems (5%) used the direct/payout method as the means of funding the liabilities incurred in providing COLAs.

Direct/Amortize - The monies needed to amortize the total liabilities to be incurred in providing the COLA payments specified for a group of eligible recipients are contributed as scheduled amortization payments commencing when the COLA is implemented and terminating at the end of the specified amortization period. Eleven retirement systems, including Pennsylvania's SERS and PSERS, (16%) used this method for funding their COLA liabilities.

Direct/Advance - The monies that will be needed to make all future COLA payments to all eligible recipients are actuarially determined and contributed pre-retirement throughout the period of active employment. Direct/advance funding is most frequently utilized with automatic cost-of-living adjustments because the pre-determined benefit allows the future liability to be actuarially determined and funded with increased contributions that are a component of the retirement system's ongoing annual costs. Forty-two retirement systems (61%) used the direct/advance method to fund their COLA liabilities.

If contributions are not explicitly increased to fund the costs incurred in providing cost-of-living postretirement adjustments, the funding method is termed "indirect" for the purposes of this report. An indirect funding method breaks down or eliminates the relationship between the costs incurred in providing cost-of-living adjustments and the resulting increase in contribution requirements. In other words, an indirect funding method for cost-of-living adjustments functions by allocating monies already accumulated in the pension trust fund, and the future contributions needed to fund the aggregate financial requirements of the retirement system are increased indirectly in order to replace the assets reallocated to fund the cost-of-living adjustments. The two indirect funding methods are identified in Figure 4 and Table V as:

Indirect/Investment Gains - The monies needed to fund the COLA payments are provided by reducing the annual or cumulative gains on investment earnings of the pension trust fund above the actuarially assumed rate. Six retirement systems (9%) used this means to fund the liabilities incurred in providing COLAs.

Indirect/Actuarial Gains - The monies needed to fund the COLA payments are provided by reducing the annual or cumulative actuarial gains attributable to favorable experience with investments, salary growth, mortality, etc. Six retirement systems (9%) used this method to fund their COLA liabilities.

Table V does not show the wide variation in the methodologies employed by the states to design and fund cost-of-living adjustments. Some are very complex, while others are very simple. As a result, the five categorizations of funding methods could have been expanded many times in order to more precisely reflect the individual approaches and techniques. However, the consolidation of the funding method categories into the five presented in Table V was viewed as necessary to allow the various approaches to be differentiated based on how the liabilities incurred in providing the cost-of-living adjustments are actually funded.

In summary, the data provided in Table V shows that the most frequently used means employed by public employee retirement systems to provide cost-of-living adjustments is automatic, formula-determined benefit increases that are funded using direct advance funding. With respect to funding methods, the data contained in Table V, as compiled and presented in Figure 4, shows that direct funding methods—advance, amortization and payout—are used in over 80% of the public employee retirement systems to fund the liabilities incurred in providing cost-of-living adjustments.

TABLE V
SURVEY RESULTS

STATE	SYSTEM	METHOD OF IMPLEMENTATION	METHOD OF DETERMINATION	METHOD OF FUNDING
Alabama	Government	Ad-Hoc	Formula	Direct/Amortize
Alabama	Teacher	Ad-Hoc	Formula	Direct/Amortize
Alaska	Government	Automatic	Formula/CPI	Direct/Advance
Alaska	Teacher	Automatic	Formula/CPI	Direct/Advance
Arizona	Combined	Conditional	Formula	Indirect/Inv. Gains
Arkansas	Government	Automatic	Fixed	Direct/Advance
Arkansas	Teacher	Automatic	Fixed	Direct/Advance
California	Government	Automatic	Fixed	Direct/Advance
California	Teacher	Automatic	Fixed	Direct/Advance
Colorado	Combined	Automatic	Fixed/CPI	Direct/Advance
Connecticut	Teacher	Conditional	Formula/CPI	Indirect/Inv. Gains
Connecticut	Government	Automatic	Formula/CPI	Direct/Advance
Delaware	Combined	Ad-Hoc	Formula	Direct/Amortize
Florida	Combined	Automatic	Fixed	Direct/Advance
Georgia	Teacher	Automatic	Fixed	Direct/Advance
Georgia	Government	Automatic	Fixed	Direct/Advance
Hawaii	Combined[1]	Automatic	Fixed	Direct/Advance
Idaho	Combined[1]	Automatic	Formula/CPI	Direct/Advance
Illinois	Government	Automatic	Fixed	Direct/Advance
Illinois	Teacher	Automatic	Fixed	Direct/Advance
Indiana	Teacher[1]	Ad-Hoc	Formula/CPI	Direct/Payout
Iowa	Combined	Automatic	Formula/CPI	Direct/Advance
Kansas	Combined	Ad-Hoc	Formula	Direct/Amortize
Kentucky	Government	Ad-Hoc	Formula/CPI	Direct/Amortize
Kentucky	Teacher[1]	Automatic	Fixed	Direct/Advance
Louisiana	Government	Automatic	Formula/CPI	Direct/Payout
Louisiana	Teacher	Ad-Hoc	Formula/CPI	Indirect/Inv. Gains
Maine	Combined	Automatic	Formula/CPI	Direct/Advance
Maryland	Combined	Automatic	Formula/CPI	Direct/Advance
Massachusetts	Government	Ad-Hoc	Formula/CPI	Direct/Advance
Massachusetts	Teacher	Ad-Hoc	Formula/CPI	Direct/Advance
Michigan	Teacher[1]	Automatic	Fixed	Direct/Advance
Minnesota	Government	Automatic	Earnings/CPI	Indirect/Inv. Gains
Minnesota	Teacher	Automatic	Earnings/CPI	Indirect/Inv. Gains
Mississippi	Combined	Automatic	Fixed	Direct/Advance
Missouri	Government	Automatic	Formula/CPI	Direct/Advance
Missouri	Teacher	Ad-Hoc	Formula/CPI	Indirect/Act. Gains
Montana	Government	Automatic	Fixed	Direct/Advance
Montana	Teacher	Automatic	Fixed	Direct/Advance
Nebraska	Teacher	Automatic	Formula/CPI	Direct/Advance

TABLE V
SURVEY RESULTS
(CONT'D)

STATE	SYSTEM	METHOD OF IMPLEMENTATION	METHOD OF DETERMINATION	METHOD OF FUNDING
Nevada	Combined	Automatic	Formula/CPI	Direct/Advance
New Hampshire	Combined	Ad-Hoc	Formula/CPI	Indirect/Act. Gains
New Jersey	Combined	Automatic	Formula/CPI	Direct/Advance
New Mexico	Government	Automatic	Fixed	Direct/Advance
New Mexico	Teacher	Automatic	Formula/CPI	Direct/Advance
New York	Government	Ad-Hoc	Formula/CPI	Direct/Payout
New York	Teacher	Ad-Hoc	Formula/CPI	Direct/Payout
North Carolina	Combined	Ad-Hoc	Fixed	Indirect/Act. Gains
North Dakota	Government	Ad-Hoc	Fixed	Direct/Amortize
Ohio	Teacher[1]	Automatic	Formula/CPI	Direct/Advance
Ohio	Government	Automatic	Formula/CPI	Direct/Advance
Oklahoma	Government	Ad-Hoc	Formula	Direct/Amortize
Oklahoma	Teacher	Ad-Hoc	Formula	Direct/Amortize
Oregon	Combined	Automatic	Formula/CPI	Direct/Advance
Pennsylvania	**Government**	**Ad-Hoc**	**Formula/CPI**	**Direct/Amortize**
Pennsylvania	**Teacher**	**Ad-Hoc**	**Formula/CPI**	**Direct/Amortize**
Rhode Island	Combined	Automatic	Fixed	Direct/Advance
South Carolina	Combined	Conditional	Formula/CPI	Indirect/Act. Gains
South Dakota	Combined	Automatic	Fixed	Direct/Advance
Tennessee	Combined	Automatic	Formula/CPI	Direct/Advance
Texas	Government	Ad-Hoc	Formula/CPI	Indirect/Act. Gains
Texas	Teacher	Ad-Hoc	Formula/CPI	Indirect/Act. Gains
Utah	Combined	Automatic	Formula	Direct/Advance
Vermont	Teacher	Automatic	Formula/CPI	Direct/Advance
Vermont	Government	Automatic	Formula/CPI	Direct/Advance
Virginia	Combined	Automatic	Formula/CPI	Direct/Advance
Washington	Combined[1]	Automatic	Formula/CPI	Direct/Advance
West Virginia	Combined	Ad-Hoc	Formula	Direct/Amortize
Wisconsin	Combined	Conditional	Earnings	Indirect/Inv. Gains

[1]Supplemental Program Exists

PART IV

COMMISSION RECOMMENDATIONS

Recommendation No. 1

ISSUE - GENERAL FUNDING APPROACH

RATIONALE

Both the citizens and the policymakers of the Commonwealth benefit when the costs of any proposed benefit modification in a public employee retirement plan are funded in a straightforward manner;

An ad hoc cost-of-living adjustment is a modification in the benefit provisions of the Commonwealth's statewide retirement plans that has a definite, determinable cost;

Utilization of a direct funding approach is necessary to provide a discernable relationship between the costs incurred in implementing an ad hoc cost-of-living adjustment and the increased funding requirements attributable to those costs; and

The Commonwealth has used a direct funding approach consistently since the initial ad hoc cost-of-living adjustment was implemented in 1968.

RECOMMENDATION

The Commission recommends that the Commonwealth continue to use a direct funding approach for the liabilities incurred in the provision of cost-of-living adjustments for retired members of SERS and PSERS.

~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~

Recommendation No. 2

ISSUE - SPECIFIC FUNDING APPROACH

RATIONALE

The Commonwealth's de facto policy on cost-of-living adjustments provides for the adjustments on an ad hoc basis:

The use of the advance direct funding approach is possible only where the cost-of-living adjustments are provided or assumed to be provided on an automatic basis;

The use of the amortization direct funding approach provides more easily budgeted funding requirements and a more defined, shorter funding period than the payout direct funding approach; and

The Commonwealth has used the amortization direct funding approach consistently since the initial ad hoc cost-of-living adjustment in 1968.

RECOMMENDATION

The Commission recommends that the Commonwealth continue to use amortization as its direct funding approach for the liabilities incurred in the provision of cost-of-living adjustments for retired members of SERS and PSERS.

~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~

Recommendation No. 3

ISSUE - ACCELERATED AMORTIZATION

RATIONALE

The use of a shorter amortization period reduces the interval between the point in time when the liability is incurred and the point in time when the liability is funded and thereby reduces the degree of inter-generational cost transfer;

The increased contributions in the early years of a shorter amortization period provide an opportunity for additional investment income which would otherwise not be available to reduce the aggregate contributions required to fund the retirement plans;

The use of a shorter amortization period reduces the total amount of the amortization payments required to fund the liability;

The use of a shorter amortization period would limit the potential for compounded amortization payments attributable to multiple cost-of-living adjustments; and

The use of the level dollar amortization basis results in higher contributions in the early years of an amortization period than the use of a level percentage amortization basis and thereby complements the forgoing objectives associated with use of a shorter amortization period.

RECOMMENDATION

The Commission recommends that the Commonwealth change from a level percentage basis amortization over 20 years to a level dollar basis amortization over 10 years for the purpose of calculating the amortization payments for cost-of-living adjustments provided by SERS and PSERS.

~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~

Recommendation No. 4

ISSUE - PARTIAL PRE-FUNDING OF COLA LIABILITIES

RATIONALE

Senate Resolution Number 103 declared that the General Assembly is concerned with funding cost-of-living adjustments in the most economical manner, and efficiency in governmental operations is viewed as an appropriate objective by the citizens of the Commonwealth;

Advance direct funding would result in substantial reductions in the total contributions required to fund the costs incurred in the provision of cost-of-living adjustments by SERS and PSERS;

Advance direct funding may only be implemented where cost-of-living adjustments are provided or assumed to be provided on an automatic basis, affording predetermination of the design and frequency of the adjustments, and the Commonwealth has implemented a de facto policy that provides cost-of-living adjustments on an ad hoc basis, precluding predetermination of the design and frequency of the adjustments;

The Commonwealth's prior ad hoc cost-of-living adjustments provide a pattern in both design and frequency that may be used to estimate the costs of future ad hoc cost-of-living adjustments;

Estimating the costs of future ad hoc cost-of-living adjustments would allow the Commonwealth to initiate modified advance direct funding within the context of its established de facto policy and reduce the total contributions required to fund future cost-of-living adjustments provided by SERS and PSERS; and

The systematic accumulation of monies within SERS and PSERS dedicated to reduce the unfunded liabilities incurred in the provision of future cost-of-living adjustments is a reasonable mechanism to achieve modified advance direct funding.

RECOMMENDATION

The Commission recommends that the SERS and PSERS Codes be amended to provide a specified percentage of payroll contribution to be included in the annual determinations of the employer contribution rates as a means to provide advance direct funding for future COLAs and that the resulting contributions be placed in restricted accounts and used to partially pre-fund the liabilities of future cost-of-living adjustments.

~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~

Recommendation No. 5

ISSUE - SPECIFICS OF LIMITED PRE-FUNDING MECHANISM

RATIONALE

The costs of the ad hoc cost-of-living adjustments provided by SERS and PSERS will vary due to fluctuations in the rate of inflation and availability of funds;

Setting a high pre-funding target could, as a result of the variability of COLA costs, accumulate funding in excess of the total liabilities of an individual ad hoc cost-of-living adjustment;

A modest target for the percentage of the future COLA costs to be prefunded will provide an adequate margin against excessive funding while accumulating a significant amount of pre-funding; and

Setting a prefunding target percentage is necessary to permit calculation of the requisite COLA contribution rate.

RECOMMENDATION

The Commission recommends:

That the Commonwealth initially set a prefunding target of 25% of the estimated liabilities of future cost-of-living adjustments;

That the Commonwealth establish an interim COLA contribution rate of 0.3 percent of payroll and apply it as a separate component of the employer contribution rate in fiscal year 2001-2002 and thereafter until a new COLA contribution rate is calculated after the enactment of the next cost-of-living adjustment;

That within one year of the effective date of each future cost-of-living adjustment, a new COLA contribution rate be calculated by the system actuary using the specified prefunding target percentage, the actuarially calculated liabilities of the recently enacted cost-of-living adjustment, an assumed five-year accumulation period and the established interest and salary assumptions;

That each COLA contribution rate calculated by the system actuary be applied as a separate component of the employer contribution rate as soon as is practicable following the enactment of each subsequent cost-of-living adjustment and continue to be applied until a new COLA contribution rate is calculated; and

Recommendation No. 5 (Cont'd)

That the Public Employee Retirement Commission be directed to perform a review of the prefunding target percentage and overall operation of the prefunding mechanism after the implementation of each new COLA contribution rate and to report its findings and recommendations no later than end of the fiscal year in which a new COLA contribution rate is first applied.

~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~

APPENDIX I

DRAFT LEGISLATION TO IMPLEMENT COMMISSION'S RECOMMENDATIONS

D R A F T

AN ACT

Amending Titles 24 (Education) and 71 (State Government) of the Pennsylvania Consolidated Statutes, further providing for partial advance funding of future supplemental annuities and amortization payments for liabilities arising out of future supplemental annuities.

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

Section 1. Section 8328(d) of Title 24 of the Pennsylvania Consolidated Statutes is amended and the section is amended by adding a subsection to read:

§ 8328. Actuarial cost method.

(a) Employer contribution rate on behalf of active members.--The amount of the total employer contribution 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 to the board. The total contribution rate on behalf of all active members shall consist of the normal contribution rate as defined

in subsection (b), [and] the accrued liability contribution rate as defined in subsection (c) and the supplemental annuity advance funding contribution rate as defined in subsection (g). The total contribution rate shall be modified by the experience adjustment factors as calculated in subsection (e) but in no case shall it be less than zero.

* * *

(d) Supplemental annuity contribution rate.--Contributions from the Commonwealth and other employers required to provide for the payment of the supplemental annuities provided for in sections 8348, 8348.1 and 8348.2 shall be paid over a period of 20 years from July 1, 1991. The amount of each annual supplemental annuities contribution shall be 5% greater than the amount of such contribution for the previous fiscal year. In the event that supplemental annuities are increased by legislation enacted subsequent to July 1, 1991, and before January 1, 2001, the additional liability for the increased benefits shall be funded in annual installments increasing by 5% each year over a period of 20 years from the July 1, coincident with or next following the effective date of such legislation. Notwithstanding the preceding, the funding for the supplemental annuities commencing 1994 provided for in section 8348.3 shall be as provided in section 8348.3(f) and the funding for the supplemental annuities commencing 1998 provided for in section 8348.5 (relating to supplemental annuities commencing 1998) shall be as provided in section 8348.5(f). Notwithstanding the preceding, in

the event that supplemental annuities are increased by legislation enacted after December 31, 2000, the additional unfunded actuarial accrued liability to be amortized shall be calculated under section 8510(d) (relating to partial advance funding of future supplemental annuities) and funded in annual level dollar installments over a period of ten years from the first July 1 occurring 360 or more days after the effective date of the legislation.

* * *

(g) Supplemental annuity advance funding contribution rate.--For the fiscal year beginning July 1, 2001, the total contribution rate as calculated annually according to this section shall include as a separate component the rate certified by the board as necessary to partially advance fund future supplemental annuities in accordance with section 8510 (relating to partial advance funding of future supplemental annuities) notwithstanding any other provision of this section.

Section 2. Section 8502(k) of Title 24 is amended to read:

§ 8502. Administrative duties of board.

* * *

(k) Certification of employer contributions.--The board shall, each year in addition to the itemized budget required under section 8330 (relating to appropriations by the Commonwealth), certify to the employers and the Commonwealth the employers' contribution rate expressed as a percentage

of the members' payroll necessary for the funding of prospective annuities for active members and the annuities of annuitants, and certify the rates and amounts of the normal contributions as determined pursuant to section 8328(b) (relating to actuarial cost method), accrued liability contributions as determined pursuant to section 8328(c), a supplemental annuity's contribution rate as determined pursuant to section 8328(d), [and] the experience adjustment factor as determined pursuant to section 8328(e), [and] premium assistance contributions as determined pursuant to section 8328(f) and supplemental annuity advance funding contribution rate as determined pursuant to section 8328(g), which shall be paid to the fund and credited to the appropriate accounts. These certifications shall be regarded as final and not subject to modification by the Budget Secretary.

Section 3. Title 24 is amended by adding a section to read:

§ 8510. Partial advance funding of future supplemental annuities.

(a) Program for partial advance funding of future supplemental annuities established.--Beginning with fiscal year 2001-02 the annual certification of the employers' contribution rate by the board pursuant to section 8502(k) (relating to administrative duties of the board) shall include a specified supplemental annuity advance funding contribution rate as a separate component. The contributions resulting from the application of the supplemental annuity advance funding contribution rate to the total

compensation of all active members during each applicable period shall be credited to the supplemental annuity advance funding account together with the actual investment earnings thereon. The balance in the supplemental annuity advance funding account shall be transferred to the annuity reserve account on the first July 1 that occurs 360 or more days after the effective date of each instance of future legislation providing supplemental annuities and shall be applied to reduce the unfunded actuarial accrued liability to be amortized as a result of the enacted supplemental annuities.

(b) Initial supplementary annuity advance funding contribution rate.--For the fiscal year 2001-02 and all fiscal years thereafter until changed by the board as provided in subsection (c), the supplemental annuity advance funding contribution rate established in section 8328(g) (relating to actuarial cost method) shall be 0.3%.

(c) Subsequent supplemental annuity advance funding contribution rate.--In making the annual valuation under section 8501(j) (relating to Public School Employees' Retirement Board) as of the first July 1 that occurs 360 or more days after the effective date of legislation increasing supplemental annuities enacted after December 31, 2000, the actuary shall certify a new supplemental annuity advance funding contribution rate calculated as being sufficient to accumulate an amount equal to 25% of the actuarial accrued liability of the increased supplemental annuities under the legislation over the subsequent five-year period using the established interest and salary

assumptions utilized for the conduct of the annual actuarial valuation under section 8501 (j). The board shall certify the rate calculated by the actuary as the supplemental annuity advance funding contribution rate pursuant to subsection (a) and section 8502(k) (relating to administrative duties of the board).

(d) Calculation of unfunded actuarial accrued liability to be amortized.--The actuary shall calculate the unfunded actuarial accrued liability for the increased supplemental annuities under legislation enacted after December 31, 2000, to be amortized under section 8328(g) (relating to actuarial cost method), as the difference resulting from subtracting the balance in the supplemental annuity advance funding account transferable to the annuity reserve account under section 8526.1(c) (relating to supplemental annuity partial advance direct funding account) from the actuarial accrued liability of the supplemental annuities being implemented, with the account balance and actuarial accrued liability both calculated as of the first July 1 occurring 360 or more days after the effective date of the legislation.

Section 4. Section 8524 of Title 24 is amended to read:

§ 8524. State accumulation account.

The State accumulation account shall be the ledger account to which shall be credited contributions of the Commonwealth and other employers as well as the earnings of the fund, except for the premium assistance contributions

and earnings thereon in the health insurance account and the supplemental annuity advance funding contributions and earnings thereon in the supplemental annuity advance funding account. Valuation interest shall be allowed on the total amount of such account less any earnings of the fund credited during the year. The reserves necessary for the payment of annuities and death benefits as approved by the board and as provided in Chapter 83 (relating to membership, contributions and benefits) shall be transferred from the State accumulation account to the annuity reserve account. At the end of each year the required interest shall be transferred from the State accumulation account to the credit of the members' savings account and the annuity reserve account. The administrative expenses of the board shall be charged to the State accumulation account.

Section 5. Section 8525(a) of Title 24 is amended to read:

§ 8525. 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 the payment of annuities and death benefits on account of all annuitants and the contributions from the Commonwealth and other employers as determined in accordance with section 8328 (relating to actuarial cost method) for the payment of the supplemental annuities provided in sections 8348 (relating to supplemental annuities), 8348.1 (relating to additional supple-

mental annuities) and 8348.2 (relating to further additional supplemental annuities). The annuity reserve account shall be credited with valuation interest. After the transfers provided in sections 8523 (relating to members' savings account), [and] 8524 (relating to State accumulation account) and 8526.1(c) (relating to supplemental annuity advance funding account), all annuity and death benefit payments shall be charged to the annuity reserve account and paid from the fund.

Section 6. Title 24 is amended by adding a section to read:

§ 8526.1 Supplemental annuity advance funding account.

(a) Purpose of account.--The supplemental annuity advance funding account shall be a ledger account to which shall be credited the reserves held to offset actuarial accrued liabilities incurred in the provision of future supplemental annuities.

(b) Credits to account.--The supplemental annuity partial advance funding account shall be credited with the contributions from the Commonwealth and other employers as determined in accordance with section 8510 (relating to advance funding of future supplemental annuities) and contributed in accordance with section 8328(g) (relating to actuarial cost method). The actual investment earnings attributable to the balance of the supplemental annuity advance funding account shall be credited to the account.

(c) Transfers from account.--In the event that supplemental annuities are provided by legislation enacted after December 31, 2000, the balance in the supplemental annuity advance funding account shall be transferred to the annuity reserve account on the first July 1 occurring 360 or more days after the effective date of the legislation.

Section 7. Section 5508(e) of Title 71 is amended and the section is amended by adding a subsection to read:

§ 5508. Actuarial cost method.

(a) Employer contribution rate on behalf of active members.--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 total employer 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) and the supplemental annuity advance funding contribution rate as defined in subsection (h). The total employer contribution rate shall be modified by the experience adjustment factor as calculated in subsection (f) but in no case shall it be less than zero.

* * *

(e) Supplemental annuity contribution rate.--Contributions from the Commonwealth required to provide for the payment of supplemental annuities as provided in sections 5708, 5708.1 and 5708.2 shall be paid over a period of 20 years from July 1, 1991. The amount of each annual supplemental annuities contribution shall be 5% greater than the amount of such contribution for the previous fiscal year. In the event that supplemental annuities are increased by legislation enacted subsequent to July 1, 1991, and before January 1, 2001, the additional liability for the increase in benefits shall be funded in annual installments increasing by 5% each year over a period of 20 years from the July first, coincident with or next following the effective date of such legislation. Notwithstanding the preceding, the funding for the supplemental annuities commencing 1994 provided for in section 5708.3 shall be as provided in section 5708.3(f)[.] and the funding for the supplemental annuities commencing 1998 provided for in section 5708.5 (relating to supplemental annuities commencing 1998) shall be as provided in section 5708(f). Notwithstanding the preceding, in the event that supplemental annuities are increased by legislation enacted after December 31, 2000, the additional unfunded actuarial accrued liability to be amortized shall be calculated under section 5909(d) (relating to advance funding of future supplemental annuities) and funded in annual level dollar installments over a period of ten years from the first July 1 occurring 360 or more days after the effective date of the legislation.

* * *

(h) Supplemental annuity advance funding contribution rate.-- For the fiscal year beginning July 1, 2001, the total contribution rate as calculated annually according to this section shall include as a separate component the rate certified by the board as necessary to partially advance fund future supplemental annuities in accordance with section 5909 (relating to partial advance direct funding of future supplemental annuities) notwithstanding any other provision of this section.

Section 8. Section 5902(k) of Title 71 is amended to read:

§ 5902. Administrative duties of the board.

* * *

(k) Certification of employer contributions.--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 employers' contributions as determined pursuant to section 5508 (relating to actuarial cost method) 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 5508(b), accrued liability contributions as determined pursuant to section 5508(c), supplemental annuities contribution rate as determined pursuant to section 5508(e), [and] the experience adjustment factor as determined pursuant to section 5508(f) and the supplemental annuity advance funding contribution rate as

determined pursuant section 5508(h), which shall be paid to the fund and credited to the appropriate accounts. These certifications shall be regarded as final and not subject to modification by the Budget Secretary.

Section 9. Title 71 is amended by adding a section to read:

§ 5909. Partial advance funding of future supplemental annuities.

(a) Program for partial advance funding of future supplemental annuities established.--Beginning with fiscal year 2001-02 the annual certification of the employers' contribution rate by the board pursuant to 5902(k) (relating to administrative duties of the board) shall include a specified supplemental annuity advance funding contribution rate as a separate component. The contributions resulting from the application of the supplemental annuity advance funding contribution rate to the total compensation of all active members during each applicable period shall be credited to the supplemental annuity advance funding account together with the actual investment earnings thereon. The balance in the supplemental annuity advance funding account shall be transferred to the annuity reserve account on the first July 1 that occurs 360 or more days after the effective date of each instance of future legislation providing supplemental annuities and shall be applied to reduce the unfunded actuarial accrued liability to be amortized as a result of the enacted supplemental annuities.

(b) Initial supplementary annuity advance funding contribution rate.--For the fiscal year 2001-02 and all fiscal years thereafter until changed

by the board as provided in subsection (c), the supplemental annuity advance funding contribution rate established in section 5508(h) (relating to actuarial cost method) shall be 0.3%.

(c) Subsequent supplemental annuity funding contribution rate.--In making the annual valuation under section 5902(j) (relating to administrative duties of the board), that calculates the amortization contribution to be made under section 5508(h) (relating to actuarial cost method) as of the first July 1 that occurs 360 or more days after the effective date of legislation increasing the supplemental annuities enacted after December 31, 2000, the actuary shall certify a new supplemental annuity advance funding contribution rate calculated as sufficient to accumulate an amount equal to 25% of the actuarial accrued liability of the increased supplemental annuities over the subsequent five-year period using the established interest and salary assumptions utilized for the conduct of the annual actuarial valuation under section 5902 (j). The board shall certify the rate calculated by the actuary as the supplemental annuity advance funding contribution rate pursuant to subsection (a) and section 5902(k) (relating to administrative duties of the board).

(d) Calculation of unfunded actuarial accrued liability to be amortized.--The actuary shall calculate the unfunded actuarial accrued liability of the increased supplemental annuities under legislation enacted after December 31, 2000, to be amortized under section 5508(h) (relating to actuarial cost method), as the difference resulting from subtracting the

balance in the supplemental annuity advance funding account transferable to the annuity reserve account under section 5939.1 (relating to supplemental annuity partial direct funding account) from the actuarial accrued liability of the supplemental liabilities being implemented, with the account balance and the actuarial accrued liability both calculated as of the first July 1 occurring 360 or more days after the effective date of the legislation.

Section 10. Section 5934 is amended to read:

§ 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) (relating to contributions by the Commonwealth and other employers) 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) and section 5508(h) (relating to actuarial cost method), shall be credited to the State Police benefit account, [or] the enforcement officers' benefit account or the supplemental annuity advance funding account as the case may be. The State accumulation account shall be credited with valuation interest. The reserves necessary for the payment of annuities and death benefits 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.

Section 11. Section 5935(a) is amended to read:

§ 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 annuities 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) and section 5939.1 (relating to supplemental annuity advance funding account), all annuity and death benefit payments 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.

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

§ 5939.1. Supplemental annuity advance funding account.

(a) Purpose of account.--The supplemental annuity partial advance direct funding account shall be a ledger account to which shall be credited the reserves held to offset actuarial accrued liabilities incurred in the provision of future supplemental annuities.

(b) Credits to account.--The supplemental annuity partial advance direct funding account shall be credited with the contributions from the Commonwealth and other employers as determined in accordance with section 5905 (relating to partial advance direct funding of future supplemental annuities) and contributed in accordance with section 5508(h) (relating to actuarial cost method). The actual investment earnings attributable to the balance of the supplemental annuity advance funding account shall be credited to the account.

(c) Transfers from account.--In the event that supplemental annuities are increased by legislation enacted after December 31, 2000, the balance in the supplemental annuity advance funding account shall be transferred to the annuity reserve account on the first July 1 occurring 360 or more days after the effective date of the legislation.

Section 13. In the event that supplemental annuities under the Public School Employees' Retirement Code and the State Employees' Retirement Code are increased by legislation enacted after December 31, 2000, the Public

Employee Retirement Commission shall review the prefunding target percentage and overall operation of the advance funding mechanism and report its findings and recommendations to the General Assembly and the Governor no later than one year after the July 1 on which the new supplemental annuity advance funding contribution rates are implemented.

Section 14. This act applies to fiscal years commencing July 1, 2001, and thereafter.

Section 15. This act shall take effect in 60 days or July 1, 2000, whichever is sooner.

APPENDIX II

SENATE RESOLUTION NO. 103

PRIOR PRINTER'S NO. 1363 PRINTER'S NO. 1444

THE GENERAL ASSEMBLY OF PENNSYLVANIA

SENATE RESOLUTION

No. 103 Session of 1999

INTRODUCED BY TILGHMAN, HART, ARMSTRONG, LOEPER, CONTI, JUBELIRER, WAGNER, MURPHY, HELFRICK, TOMLINSON, COSTA, ROBBINS, MOWERY, WOZNIAK, BRIGHTBILL, O'PAKE, MADIGAN, GERLACH, RHOADES, WHITE, DENT, MUSTO, SLOCUM, SCHWARTZ, LEMMOND, BOSCOLA, KUKOVICH, EARLL, SALVATORE, CORMAN, THOMPSON, WENGER, PICCOLA, PUNT, HOLL, WAUGH, BELL AND GREENLEAF, OCTOBER 1, 1999

SENATOR HART, FINANCE, AS AMENDED, OCTOBER 25, 1999

A RESOLUTION

Requesting the Public Employee Retirement Commission to undertake a study relating to the funding of cost-of-living adjustments for retired State and public school employees.

WHEREAS, The General Assembly has, since 1974, regularly adopted legislation providing cost-of-living adjustments (COLAs) to the Commonwealth's retired State and public school employees; and

WHEREAS, The COLAs were intended to replace a portion of the income loss due to inflation experienced by our retirees since the previous adjustments were made; and

WHEREAS, The General Assembly hopes to continue to periodically authorize COLAs of this type for its retired State and public school employees, at such times as the General Assembly determines that it is financially feasible and prudent for the Commonwealth to do so; and

WHEREAS, The General Assembly is concerned with funding these

benefit improvements in the most economical manner; therefore be it

RESOLVED, That the Senate hereby request that the Public Employee Retirement Commission undertake a study of the funding methods that have been utilized for COLAs in Pennsylvania and for COLAs granted to retired State and public school employees by other states; and be it further

RESOLVED, That the Public Employee Retirement Commission report its findings and recommendations concerning the funding of COLAs in Pennsylvania to the General Assembly by December ~~31~~ 28, 2000.