#391

A Review of the Financial Position and Benefit Provisions of the Public Employees' Retirement System

January 11, 1999

PEER's actuary concluded that the Public Employees' Retirement System's (PERS's) current benefit formula does not encourage employees with twenty-five or more years of covered service to defer retirement and continue public employment. In fact, under certain circumstances, the early retirement subsidy is greater than the value of benefits accrued for continued covered employment under PERS.

PERS's present benefit formula provides retirement income which is reasonably protected against the effects of inflation. PERS has benefited from a "bull" stock market, which appears to be the byproduct of the system's diversified portfolio. Because of such diversification, short-term investment losses caused by downturns in the stock market should not have a long-term impact on the funded status of the system.

The PEER Committee

PEER: The Mississippi Legislature's Oversight Agency

The Mississippi Legislature created the Joint Legislative Committee on Performance Evaluation and Expenditure Review (PEER Committee) by statute in 1973. A standing joint committee, the PEER Committee is composed of five members of the House of Representatives appointed by the Speaker and five members of the Senate appointed by the Lieutenant Governor. Appointments are made for four-year terms with one Senator and one Representative appointed from each of the U. S. Congressional Districts. Committee officers are elected by the membership with officers alternating annually between the two houses. All Committee actions by statute require a majority vote of three Representatives and three Senators voting in the affirmative.

Mississippi's constitution gives the Legislature broad power to conduct examinations and investigations. PEER is authorized by law to review any public entity, including contractors supported in whole or in part by public funds, and to address any issues which may require legislative action. PEER has statutory access to all state and local records and has subpoena power to compel testimony or the production of documents.

PEER provides a variety of services to the Legislature, including program evaluations, economy and efficiency reviews, financial audits, limited scope evaluations, fiscal notes, special investigations, briefings to individual legislators, testimony, and other governmental research and assistance. The Committee identifies inefficiency or ineffectiveness or a failure to accomplish legislative objectives, and makes recommendations for redefinition, redirection, redistribution and/or restructuring of Mississippi government. As directed by and subject to the prior approval of the PEER Committee, the Committee's professional staff executes audit and evaluation projects obtaining information and developing options for consideration by the Committee. The PEER Committee releases reports to the Legislature, Governor, Lieutenant Governor, and the agency examined.

The Committee assigns top priority to written requests from individual legislators and legislative committees. The Committee also considers PEER staff proposals and written requests from state officials and others.

A Review of the Financial Position and Benefit Provisions of the Public Employees' Retirement System

January 11, 1999

The PEER Committee

Mississippi Legislature

The Mississippi Legislature

Joint Committee on Performance Evaluation and Expenditure Review

PEER Committee

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January 11, 1999

Honorable Kirk Fordice, Governor
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Honorable Tim Ford, Speaker of the House
Members of the Mississippi State Legislature

MISS. CODE ANN. Section 25-11-101 (1972) requires the PEER Committee "to have performed random actuarial evaluations, as necessary, of the funds and expenses of the Public Employees' Retirement System and to make annual reports to the Legislature on the financial soundness of the system."

PEER contracted with the actuarial firm of Bryan Pendleton Swats & McAllister to review PERS's financial position and benefit provisions. PEER released this report, entitled **A Review of the Financial Position and Benefit Provisions of the Public Employees' Retirement System**, at its January 11, 1999, meeting.

Representative Tommy Horne, Chairman

This report does not recommend increased funding or additional staff.

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A Review of the Financial Position and Benefit Provisions of the Public Employees' Retirement System

January 11, 1999

Executive Summary

MISS. CODE ANN. Section 25-11-101 (1972) requires the PEER Committee to conduct actuarial evaluations of the Public Employees' Retirement System (PERS) and report to the Legislature on PERS's financial soundness. PEER contracted with the actuarial firm of Bryan Pendleton Swats & McAllister to review PERS's financial position and benefit provisions.

PEER's actuary concluded that the Public Employees' Retirement System's (PERS's) current benefit formula does not encourage employees with twenty-five or more years of covered service to defer retirement and continue public employment. In fact, under certain circumstances, the early retirement subsidy is greater than the value of benefits accrued for continued covered employment under PERS.

PERS's present benefit formula provides retirement income which is reasonably protected against the effects of inflation. PERS has benefited from a "bull" stock market, which appears to be the byproduct of the system's diversified portfolio. Because of such diversification, short-term investment losses caused by downturns in the stock market should not have a long-term impact on the funded status of the system.

As noted in PEER's 1998 report on PERS, the amortization period of the unfunded actuarial accrued liability is not an appropriate measure of the funded status of the retirement system. Both the benefit provisions and financing of PERS are maturing. Thus PERS should emphasize measures of its funding progress which reflect the maturing of the system.

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PUBLIC EMPLOYEES RETIREMENT SYSTEM OF MISSISSIPPI

Actuarial Review
December, 1998

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December 21, 1998

PEER Committee
P. O. Box 1204
Jackson, MS 39215-1204

Re: Actuarial Review of Public Employees Retirement System

Gentlemen:

Enclosed is our review of the Public Employees Retirement System of Mississippi has outlined in the Contract for Professional Services which we executed with the PEER Committee on September 21, 1998.

We wish to acknowledge the cooperation and support we received from the PERS staff. All of our requests for information were provided in a timely and complete manner. We appreciate the opportunity of providing these services to the Joint Committee on Performance Evaluation and Expenditure Review and will be pleased to supplement this report in any way.

Sincerely,

Mike Brister

Mike Brister, F.S.A.
Consulting Actuary

Introduction

The PEER Committee has commissioned Bryan, Pendleton, Swats & McAllister, LLC to review the current financial position and benefit provisions of the Public Employees Retirement System of Mississippi (PERS). This review is to address the following:

- Whether the benefit formula for PERS encourages employees with 25 or more years of covered service to defer retirement and continue public employment.

- Whether the benefit formula for PERS provides retirement income which is reasonably protected against the effects of inflation.

- The degree to which PERS's present financial position can be attributed to and is dependent on the stock market performance of recent years.

- The degree to which PERS's contribution rates or benefits would be affected should the stock market experience a downturn.

- Whether PERS should use measures in addition to or in lieu of the amortization period of the Unfunded Actuarial Accrued Liability (UAAL) to describe the funded status of the system.

In the body of this report, we will address each of the above.

Findings

- The benefit formula for PERS does not encourage employees with 25 or more years of covered service to defer retirement and continue public employment. In fact, under certain circumstances, the early retirement subsidy is greater than the value of benefits accrued for continued covered employment under PERS.

- The benefit formula for PERS provides retirement income which is reasonably protected against the effects of inflation. In fact, the current benefit formula and cost of living adjustments produce income greater than pre-retirement income for many salary and service levels for extended periods after retirement.

- PERS has benefited from a "bull" stock market, which appears to be the byproduct of a diversified portfolio. The growth in plan assets has been extraordinary. It took 38 years for the value of system assets to reach $4 billion, and that value has more than tripled to $13 billion over the last 8 years.

- Six months of a "bear" stock market that constitutes a short-term investment loss should not have a long-term impact on the funded status of the system. The system protects itself from aberrations in investments through a diversification of assets and use of an actuarial asset value that offsets short-term gains and losses.

- The amortization period of the Unfunded Actuarial Accrued Liability is not an appropriate measure of the funded status of the system. Both the benefit provisions and financing of PERS are maturing. As a result, PERS should emphasize measures of its funding progress which reflect the maturing of the system.

Whether the benefit formula for PERS encourages employees with 25 or more years of covered service to defer retirement and continue public employment.

PERS currently provides that a participant may retire with 25 or more years of credited service and receive an immediate, unreduced retirement benefit. The subsidy for early receipt of an unreduced benefit is material and increases markedly the earlier the age at which payments begin.

There are usually many reasons why an employee may choose to retire early. For purposes of this report, we will focus on the value of the early retirement subsidy. To make our analysis we will consider two employees each making $30,000. Employee A has 25 years of service at age 50 and Employee B has 25 years of service at age 55.

Both have the opportunity to work for a successor employer earning the same salary as with their public employer. For our first example, assume the successor employer does not maintain any type of retirement plan. To complete our analysis, we will use a 5% salary assumption, an 8% pre-tax return on investments, a 2.5% inflation rate and a 25% individual marginal tax rate. In addition, we are assuming Employees A and B will act to maintain their standard-of-living while maximizing their ultimate retirement benefit at age 65.

If Employees A and B both retire with 25 years of service and go to work for the successor employer, they would have additional income from two sources. The first is the monthly benefit payable from PERS. The second is the member contribution to PERS of 7.25% of pay that would no longer be required. For purposes of our analysis, we are assuming these amounts are saved on an after tax basis. These can be saved and each employee still maintain his current standard-of-living. On the other hand, if they continue to work for their current public employer, they would earn additional years of service to age 65 for their final average earnings benefit from PERS.

The following chart compares the monthly benefit each would have at age 65 from changing employment and from remaining in public employment.

Chart 1
Monthly Benefit at Age 65
Successor Employer Maintains No Qualified Plan

	Age with 25 Years of Service	Change Employment	Remain in Public Employment	Benefit Increase
Employee A	50	$ 4,291	$ 3,719	15%
Employee B	55	2,862	2,535	13

The monthly benefits derived from "Change Employment" come from the indexed PERS benefit which began when they changed jobs and from converting the accumulated value of their after tax savings to a monthly annuity increasing 2.5% a year on a simple interest basis. In other words, they use their after-tax savings to purchase a monthly annuity benefit payable on the same basis as their PERS benefit.

The results of Chart 1 are dramatic. Our Employees A and B do not accrue any additional benefits by continuing covered employment under PERS once they have attained 25 years of service.

Let us assume all the above and, in addition, the successor employer sponsors a 401(k) plan, 403(b) or 457 plan which allows our Employee A and Employee B to defer amounts up to the 401(k) dollar limit on a pre-tax basis. This would allow Employees A and B to save a large portion of their PERS early retirement benefit and the 7.25% employee contribution on a pre-tax basis while still maintaining their standard-of-living.

The following chart compares the monthly benefit each would have at age 65 from changing employment and from remaining in public employment assuming some savings on a pre-tax basis.

Chart 2
Monthly Benefit at Age 65
Successor Employer Maintains A Plan Allowing Some Pre-Tax Savings

	Age with 25 Years of Service	Change Employment	Remain in Public Employment	Benefit Increase
Employee A	50	$ 5,312	$ 3,719	43%
Employee B	55	3,330	2,535	31

Considering the prevalence of retirement plans which allow employees to save on a pre-tax basis, Chart 2 illustrates that a PERS member may be able to materially increase his ultimate retirement benefit by changing jobs after 25 years of service. Chart 2 completely ignores any retirement benefit provided by the successor employer which is usually associated with a 401(k) or similar type plan.

For Chart 3, we are assuming the successor employer is another public employer (other than the State of Mississippi) which sponsors a retirement plan identical to PERS. For example, this would be a measure of the financial incentive for a teacher to retire early from PERS, but continue their career in another state.

Chart 3
Monthly Benefit at Age 65
Successor Employer Maintains A Plan Identical to PERS

	Age with 25 Years of Service	Change Employment	Remain in Public Employment	Benefit Increase
Employee A	50	$ 6,001	$ 3,719	61%
Employee B	55	3,709	2,535	46

The above can be summarized as follows:

Chart 1 illustrates that for a successor employer who does not sponsor any retirement plan, the subsidy would allow an employee to change jobs, and to nominally improve his retirement benefit at age 65 while maintaining the pre-retirement standard-of-living he enjoyed in public employment.

Chart 2 illustrates that, where the employee has access to pre-tax savings, the subsidy would allow an employee to change jobs, and to materially improve his retirement benefit at age 65 while maintaining his pre-retirement standard-of-living.

Chart 3 illustrates the financial incentive a PERS member would have to seek public employment in another state following his completion of 25 years of service under PERS.

Conclusion

The benefit formula for PERS does not encourage employees with 25 or more years of covered service to defer retirement and continue public employment. In fact, under certain circumstances, the early retirement subsidy is greater than the value of benefits accrued for continued covered employment under PERS.

The current early retirement subsidy in PERS is material. Any financial incentive which would encourage employees not to seek a successor employee following 25 years of service would also have to be material.

Whether the benefit formula for PERS provides retirement income which is reasonably protected against the effects of inflation.

Generally the purpose of any retirement system is to provide its members who have sufficient service with an adequate retirement benefit. An adequate retirement benefit is one which allows a member to maintain his standard-of-living after his full-time employment has ceased. The standard measure of how well a retirement program meets this goal is referred to as a replacement ratio. A replacement ratio is the ratio of a member's annual income after taxes in the year after retirement to his annual income after taxes in the year before retirement.

Retirement benefits are judged to preserve a retiree's standard-of-living if the replacement ratio is 100%. It is also accepted that disposable income should not increase after retirement or, stated another way, replacement ratios should not exceed 100%.

Because of changes in sources of income and certain other expenses, one dollar of gross income before retirement yields less disposable income than one dollar of gross income after retirement. Replacement ratio studies generally cover multiple retirement ages with varying levels of service. During the 1990's two replacement ratio studies for PERS have been prepared, one commissioned by PEER and the other commissioned by PERS. A complete replacement ratio study is beyond the scope of this report; however, we will determine replacement ratios for representative members.

To determine net income we considered the following items using a base year of 1998:

Federal income taxes,
Mississippi State income taxes,
Social Security and Medicare taxes,
member health insurance premiums and
member contributions to PERS.

We determined replacement ratios for the following categories of members:

Age at retirement	65	65	62	62
Annual salary	$ 30,000	$ 30,000	$ 30,00	$ 30,000
Service at Retirement	30	30	25	25
Marital Status	Married	Single	Married	Single

To measure the effects of inflation on retirement, we projected each component of net retirement income for twenty years using general inflation rates of 3% and 4% with inflation rates for health insurance premiums of 4.5% and 6% respectively. As a measure of a participant's post-retirement standard-of-living, we projected his net earnings in the year before retirement at the general inflation rate. We used a 5% salary assumption.

The following illustrates how the replacement ratio is calculated in the first year for a married member, attained age 65 with 30 years of service and annual earnings in the year prior to retirement of $30,000.

Net Income In Year Before Retirement

Gross Pay	PERS Contribution	Health Premium	FICA	Federal Inc. Tax	State Inc. Tax	Net Income
$ 30,000	$ 2,175	$ 1,764	$ 2,295	$ 2,034	$ 508	$ 21,224

Net Income in Year After Retirement

Social Security	PERS Benefit	Income Tax	Health Premium	Net Income
$ 18,000	$ 15,882	$ 380	$ 2,472	$ 31,030

Assuming 4% inflation, our participant would need 1.04 times $ 21,224 or $ 22,073 to maintain his standard-of-living in his first year of retirement. The replacement ratio is calculated as $ 31,030 divided by $ 22,073 or 141%.

The following chart summarizes the results of our findings:

Replacement Ratios
Age 65 with 30 Years of Service, $30,000 Salary

	Married		Single	
Inflation	3%	4%	3%	4%
Years Retired				
1	142%	141%	115%	113%
5	140%	136%	113%	109%
10	137%	130%	110%	104%
15	132%	123%	107%	99%
20	127%	116%	103%	92%

Replacement Ratios
Age 62 with 25 Years of Service, $30,000 Salary

	Married		Single	
Inflation	3%	4%	3%	4%
Years Retired				
1	109%	108%	91%	90%
5	115%	111%	93%	90%
10	112%	105%	91%	86%
15	108%	99%	88%	81%
20	104%	93%	85%	76%

The only way to completely analyze the appropriateness of a benefit formula is by a comprehensive replacement ratio study which considers many age, service and salary categories. However, for 1998, for all members the average age is 42.5 years, average service is 10 years and average annual pay is $23,742. Therefore, the average member, if they so choose, can have in excess of 30 years of service at age 65. Since replacement ratios tend to increase as salaries decline, due to the effects of Social Security, the above analysis should cover a large portion of current membership. Based upon the above sample and earlier replacement ratio studies prepared in 1991 and 1992, the current PERS benefit formula appears to do a very good job at maintaining members' standard-of-living and protecting that income against reasonably anticipated levels of inflation. In fact, for many salary and service levels, replacement ratios are well in excess of 100% and remain above 100% for extended periods after retirement.

Conclusion

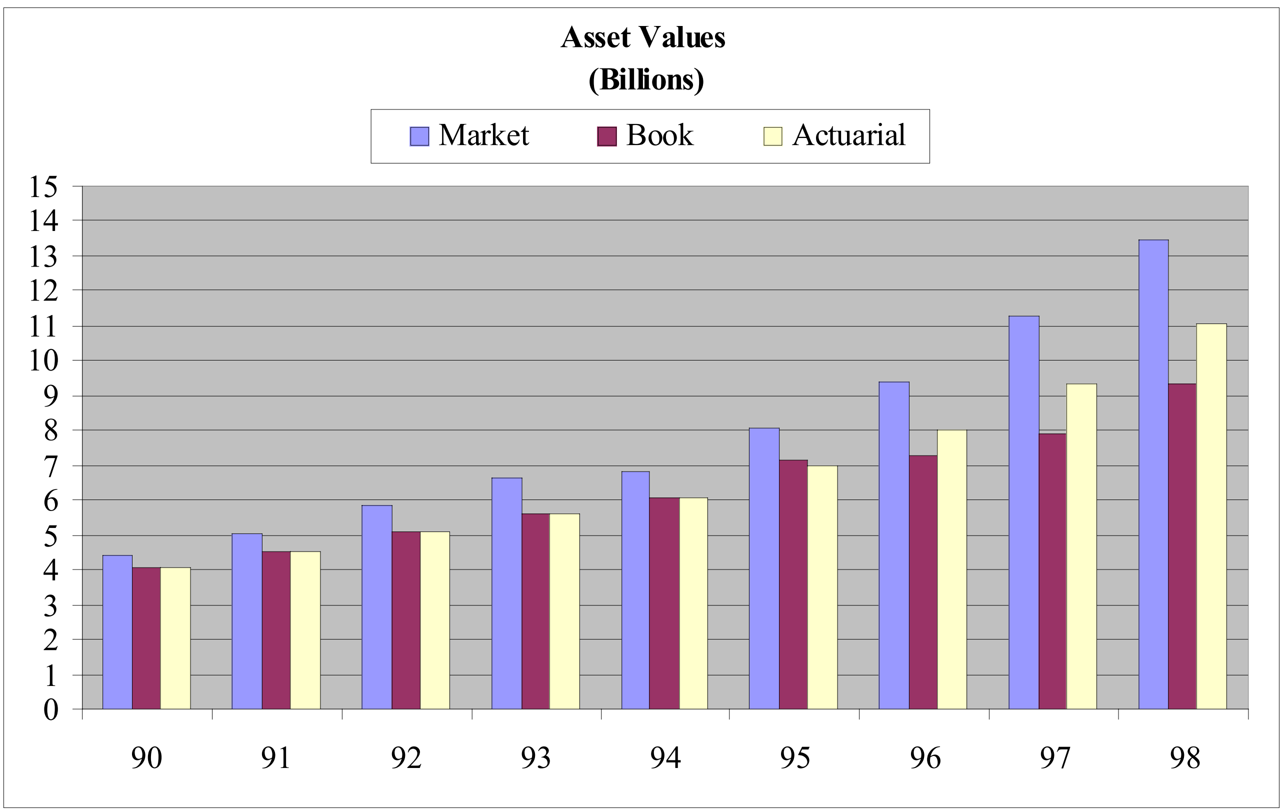
The benefit formula for PERS provides retirement income which is reasonably protected against the effects of inflation. In fact, the current benefit formula and cost of living adjustments produce income greater than pre-retirement income for many salary and service levels for extended periods after retirement.

The degree to which PERS's present financial position can be attributed to and is dependent on the stock market performance of recent years.

The June 30, 1998 Annual Actuarial Valuation of PERS prepared by the PERS actuary shows three values for the system's assets as of June 30, 1998, market value, book value and actuarial value. Market value represents the fair value of plan assets, or the price a willing buyer would pay for the asset on June 30, 1998. Book value generally represents the cost of the assets when acquired. Actuarial value represents the value assigned by the actuary and is used in the annual valuation for purposes of determining funding requirements and the funded status of the system.

Since June 30, 1995, the actuarial value of plan assets has been a market-related value based on assumed investment income (8%) plus (or minus) differences between actual and assumed investment income phased in over a closed five-year period. Prior to 1995, the actuarial value of plan assets was equal to book value.

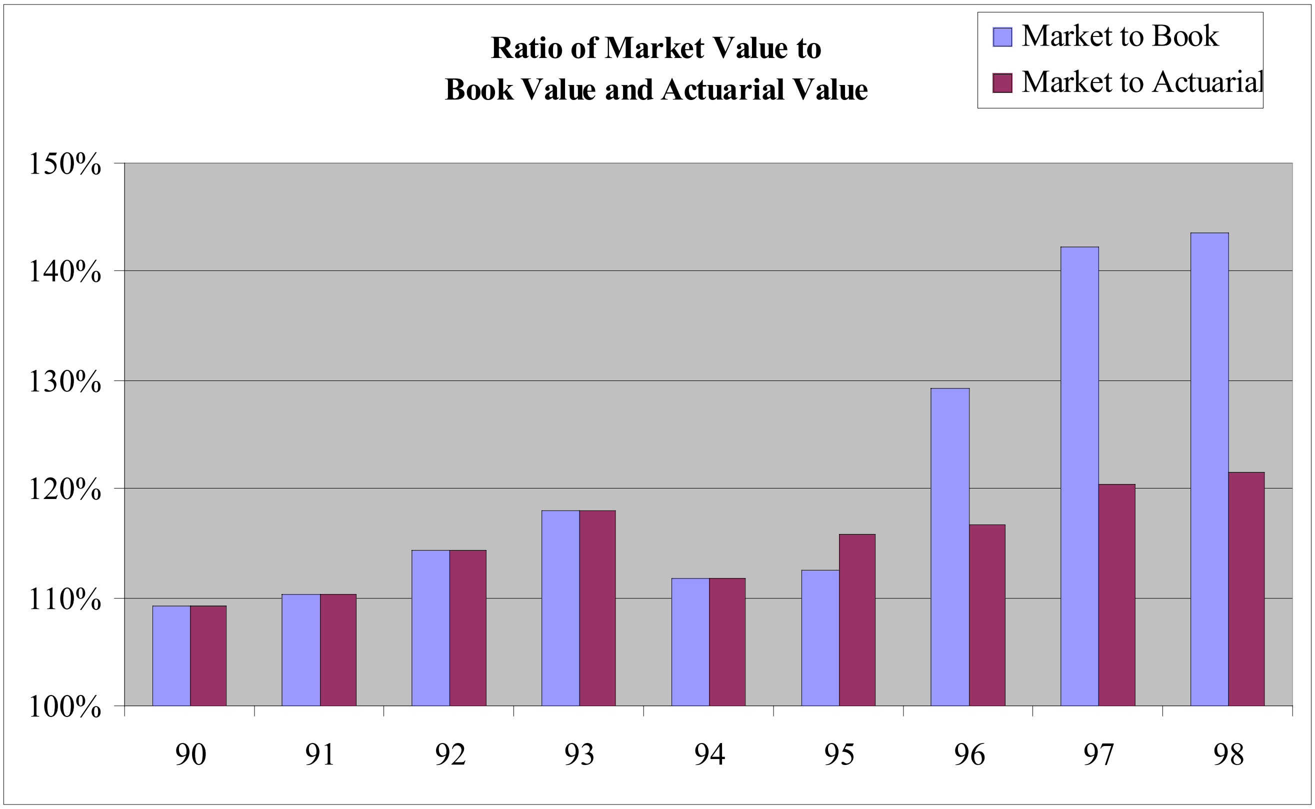
The following graph compares asset values under the above three definitions since 1990.



The following chart shows the annualized rate of return earned by the system over the last eight years under each definition of asset value:

	Market Value	**Book Value**	**Actuarial Value**
Rate of return since 6/30/90	13.19%	10.29%	11.50%

Prior to 1995, the actuarial value of system assets was defined as book value. The following graph shows the ratio of the market value of system assets to actuarial value and book value over the last nine years.

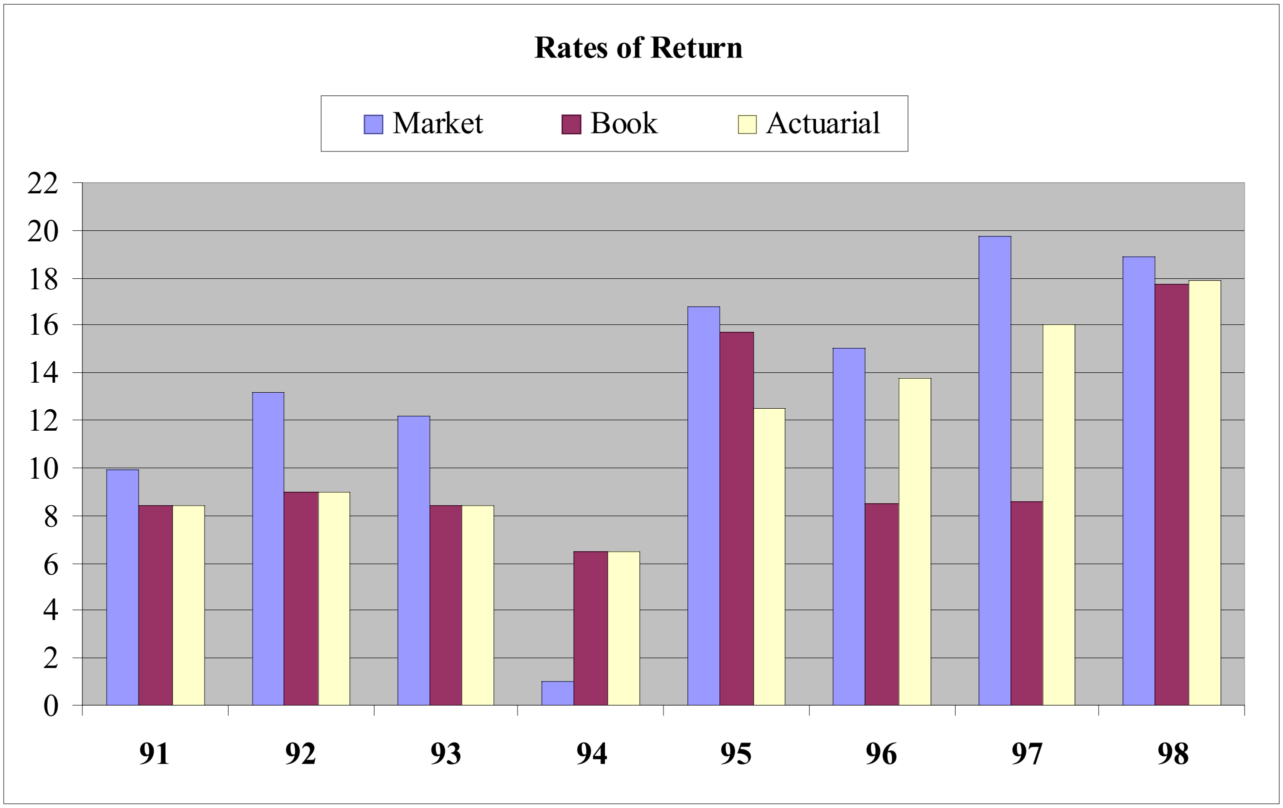


Beginning in 1996, the market value of plan assets exceeded the book value of assets by nearly 30%. As a benchmark, rules for private employer plans do not allow the use of an actuarial value of assets that exceeds market value by more than 120% or is less than 80% of market value. The growth in the market value of system assets has made book value an inappropriate measure of plan assets for valuation purposes.

The difference between the market value of plan assets and the actuarial value of plan assets as of June 30, 1998 is $2,370,391,000. This amount is scheduled to be phased into the actuarial value of plan assets over the next four years as follows:

Year	**Gain/(Loss)**
1999	$ 924,026,000
2000	649,931,000
2001	519,120,000
2002	277,314,000

The following graph shows the rates of return over the last eight years for each asset value.



The above illustrates that the system can experience wide swings in investment results from one year to the next. However, the wide variations that may occur in investment results from year to year should be viewed as more of a nuisance than a problem that warrants a great deal of concern. Of genuine interest is the long term trend in investment results. The method used to determine the actuarial value of plan assets is designed to offset short term investment gains with short term investment losses so that only long term trends emerge in the determination of asset values for valuation purposes.

The goal of any investor is to maximize investment results while minimizing risk. For an investor with a long term investment objective the best way to achieve this objective is through a well diversified portfolio. The following chart shows the asset allocation of PERSs' investments as of June 30, 1998 and the strategic asset allocation adopted in 1995.

	Asset Allocation (Market Value)	
	June 30, 1998	**Target Allocation**
Domestic Equity	54.4%	50.0%
Non-U. S. Equity	12.6	20.0
Domestic Fixed Income	32.2	25.0
Real Estate	0.0	5.0
Cash & Equivalents	.8	Negligible

Clearly, equities have played a large part in the investment results of PERS over the last several years since the majority of assets have been invested in equities. It is important to understand that even though the ultimate goal is to have 70% of investments in equities (both domestic and foreign), the asset allocation may still represent a well diversified portfolio.

Conclusion

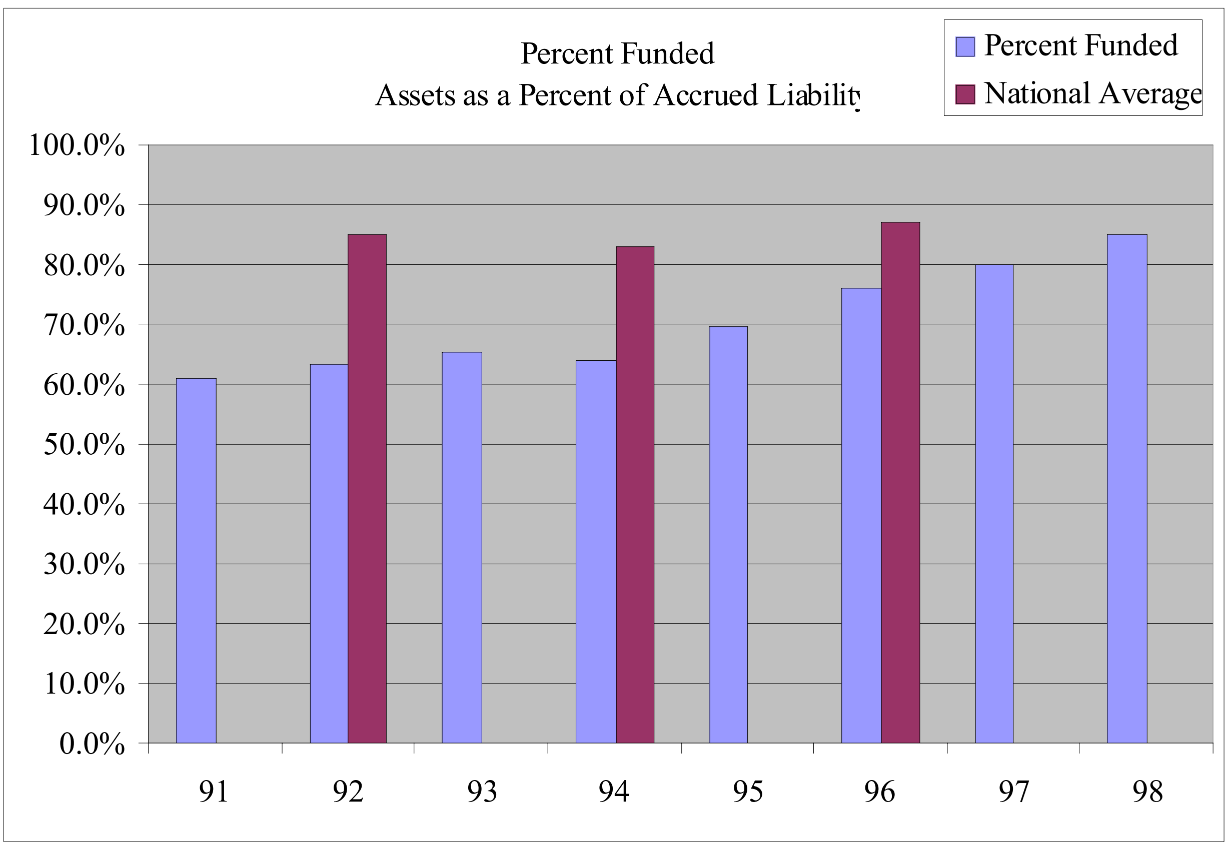
PERS has benefited from a "bull" stock market, which appears to be the by-product of a diversified portfolio. The growth in plan assets has been extraordinary. It took 38 years for the value of system assets to reach $4 billion, and that value has more than tripled to $13 billion over the last 8 years.

The degree to which PERS contribution rates or benefits would be affected should the stock market experience a downturn-i.e., six months as a "bear" stock market.

In this section of the report we will review accepted measures of the funded status of the System to gauge how those measures have changed during the 1990's. Definitions of the underlined terms in this section of the report can be found at the end of this report.

The June 30, 1998 Actuarial Valuation of PERS prepared by the PERS actuary provides a history of the recognized measures of a system's funding progress. The first is the Percent Funded which is the ratio of the actuarial value of system assets to the Actuarial Accrued Liability. The funded status of a system is generally deemed to improve as this ratio increases.

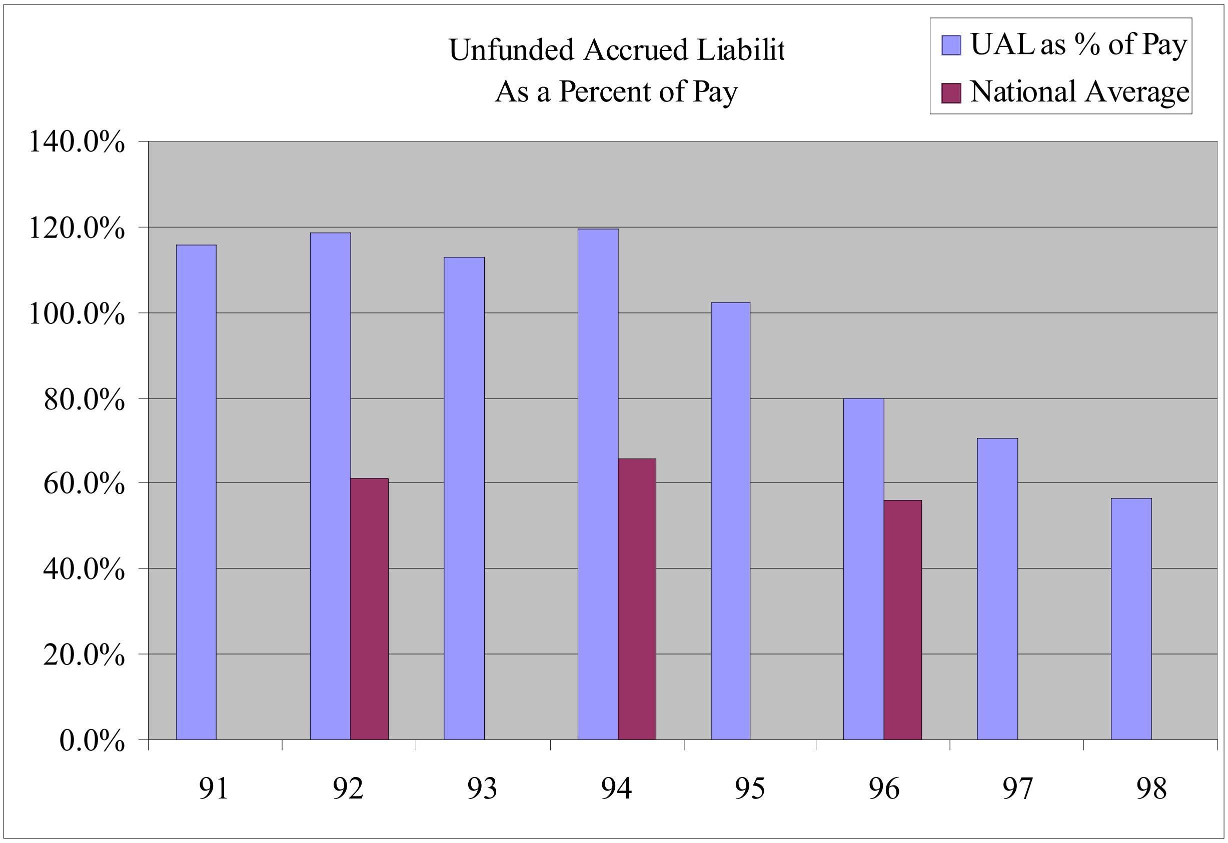
The following is a graph that shows the progress of this ratio over the last eight years. Also included are national averages taken from surveys prepared for the *Public Pension Coordinating Council*. To obtain these averages, we used the information from 74 systems (69 in 1992) similar to PERS.



In 1992 PERS ranked 60th out of 69 systems in percent funded and in 1996, 62nd out of 74. Regardless of its rank, the growth in the actuarial value of system assets has pushed the funded status of the system to the 80% to 90% range, which seems to be the national norm.

The other measure of funded status is the ratio of Unfunded Actuarial Accrued Liability to covered payroll. The funded status of a system is deemed to improve as this ratio declines.

The following is a graph that shows the progress of this ratio over the last eight years along with national averages taken from the same sources as above.

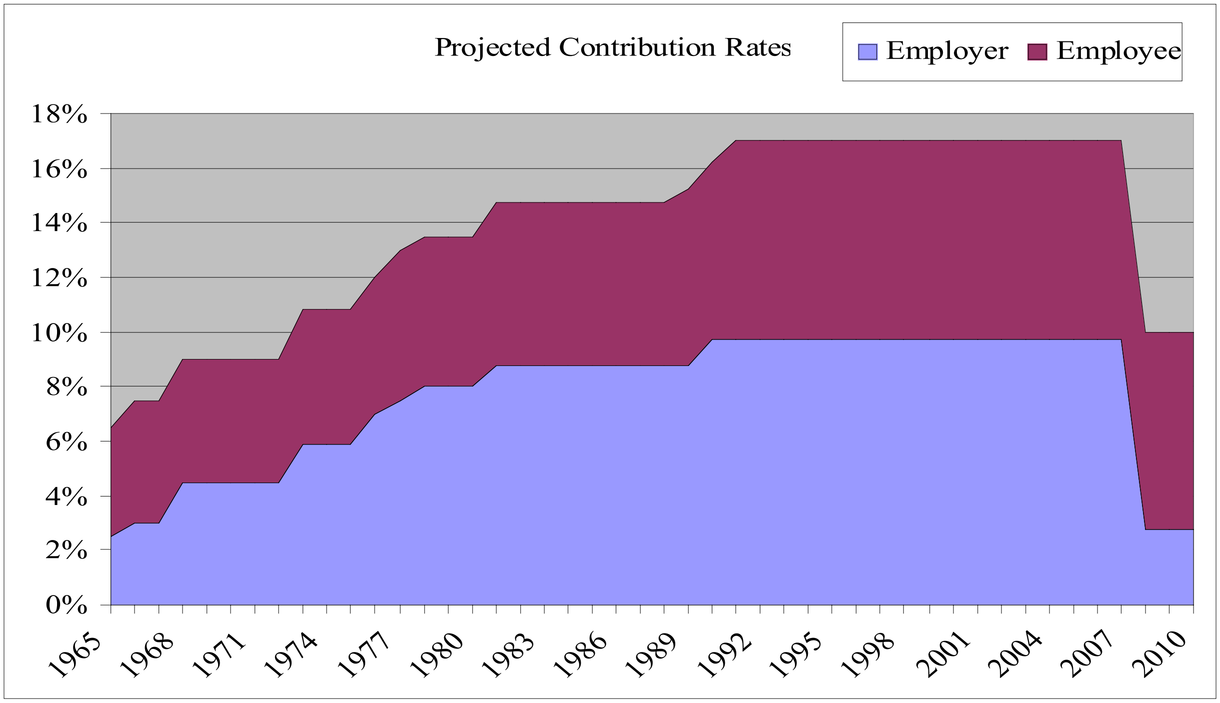


In 1992 PERS ranked 57th out of 69 systems in this measure of funded progress, and in 1996, 55th out of 74. Again, the growth of the actuarial value of plan assets has pushed this measure below 60% which appears to be close to the national norm.

The above measures provide us with an historical perspective on the funding progress of the system. Also important are projections based upon best guesses about where the system may be in the next eight or nine years.

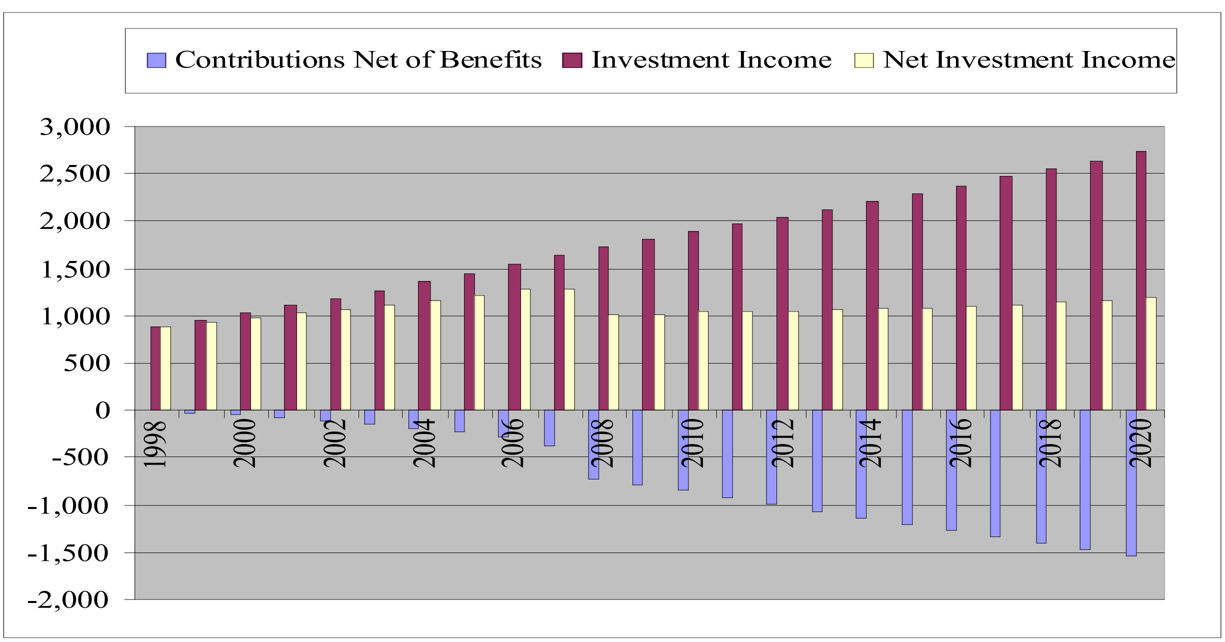
The June 30, 1998 Actuarial Valuation of PERS also includes projections about future contributions and cashflows based upon reasonable assumptions. Whereas actual experience may cause variations, the projections point out how the nature of the system may change in the near term.

The following graph shows us where contributions have been and where they may be over the near term.



The prospect of funding the UAAL in the near term will have major consequences for the system. All involved with the system will be required to think through what constitutes appropriate benefit and contribution levels.

The following graph taken from the June 30, 1998 Actuarial Valuation shows the anticipated future relationship among contributions, benefit payouts and investment earnings.



By next year, benefit payouts will exceed contributions for the first time in the system's history. In addition, for the first time, increasing portions of investment income will be used to provide current benefit payments. The system is maturing and previous relationships between sources of income and benefit payouts are changing. This is normal as a retirement system matures. The system today is not the same as it was ten years ago, and, as the above illustrates, even more changes are coming.

Conclusion

Six months of a bear stock market that constitutes a short-term investment loss should not have a long-term impact on the funded status of the system. The system protects itself from aberrations in investments through a diversification of assets and use of an actuarial asset value that offsets short-term gains and losses.

The system has changed materially during the 1990's, with even more changes expected over the next ten years. These changes will require that fundamental decisions be made about benefit and contribution levels for the system.

Whether PERS should use measures in addition to or in lieu of the amortization period of the Unfunded Actuarial Accrued Liability (UAAL) to describe the funded status of the system.

The amortization period of the Unfunded Actuarial Accrued Liability (UAAL) is not a meaningful measure of the funded status of PERS. Much more meaningful measures exist such as those provided for in the Governmental Accounting Standards Board (GASB) Statements No. 25 and No. 27, as included on pages 35 and 36 of the June 30, 1998 PERS Actuarial Valuation.

These measures are the "Percent Funded" which is the ratio of the Actuarial Accrued Liability to the actuarial value of plan assets. The other is the ratio of the UAAL to covered payroll. Both of these measures are discussed earlier in this report.

Compared to the measures included in the GASB reporting requirements, as described above, the amortization period of the UAAL currently overstates the funded status of PERS.

Conclusion

The amortization period of the Unfunded Actuarial Accrued Liability is not an appropriate measure of the funded status of the system. Both the benefit provisions and financing of PERS are maturing. As a result, PERS should emphasize measures of its funding progress which reflect the maturing of the system.

Definitions

Actuarial Cost Method is a budgeting process that assigns a cost of the benefits payable under the system to prior, current and subsequent plan years. The cost of the benefits payable determined as of a specific date is referred to as the present value of benefits.

Normal Cost is the annual cost assigned to current and subsequent plan years by the actuarial cost method.

Actuarial Accrued Liability is the portion of the present value of benefits which is not provided through future Normal Costs. The Actuarial Accrued Liability, at any particular time, is equal to the present value of future benefits less the present value of future Normal Costs.

Actuarial Valuation or Valuation is the determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets and related Actuarial Present Values for a pension plan.

Unfunded Actuarial Accrued Liability is the excess of the Actuarial Accrued Liability over assets. In the following we will refer to the Unfunded Actuarial Accrued Liability as the UAAL.

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FRANK READY
Executive Director

December 28, 1998

RECEIVED
DEC 29 1998
PEER COMMITTEE

Mr. Max K. Arinder
Executive Director
PEER Committee
222 North President Street
Jackson, MS 39201

Re: Response to Draft of 1998 Review of Current Financial Position and Benefit Provisions of PERS

Dear Mr. Arinder:

PERS staff has reviewed the draft report prepared by the firm of Bryan, Pendleton, Swats & McAllister as consultant to the PEER Committee. The consultant was charged with reviewing the current financial position and benefit provisions of the Public Employees' Retirement System. We appreciate the opportunity to respond to the following Findings as set forth in the report:

(1) Whether the benefit formula for PERS encourages employees with 25 or more years of covered service to defer retirement and continue public employment.
(2) Whether the benefit formula for PERS provides retirement income which is reasonably protected against the effects of inflation.
(3) The degree to which PERS' present financial position can be attributed to and is dependent on the stock market performance of recent years.
(4) The degree to which PERS' contribution rate or benefits would be affected should the stock market experience a downturn.
(5) Whether PERS should use measures in addition to or in lieu of the amortization period of the Unfunded Actuarial Accrued Liability (UAAL) to describe the funded status of the system.

In arriving at the Finding for issue (1) above, the consultant decided to illustrate the value of an early retirement subsidy by making certain assumptions. While not verifying the calculations made by the consultant regarding benefit levels, PERS does not disagree with the resulting products. It should not be surprising to anyone that a PERS member is financially better off retiring at 25 years of service if he/she finds employment with an employer not covered by PERS. This was very amply pointed out in PERS' 1992 Benefit Adequacy Study. We, therefore, concur with the Consultant's conclusion that the PERS benefit formula does not encourage employees with 25 or more years of covered service to defer retirement and continue public employment.

On the contrary, provisions of PERS may actually encourage members to retire at the earliest possible date. First, the legislatively initiated 25-year retirement eligibility provision makes it possible for a member to retire with an unreduced benefit equal to 46.875% of his/her average compensation regardless of age. Many in the public work force attain 25 years of creditable service credit (includes accumulated leave time) at ages ranging from 45 - 55 years of age. They have and are taking advantage of this generous provision by retiring and finding employment outside the public sector while using the retirement allowance to supplement the salary earned in the private sector job.

In times of flat or near-flat salary increases, the annual cost-of-living adjustments will produce a greater retirement benefit than that produced by the benefit formula had the member remained on the job.

More and more retirees who retire prior to age 62 are beginning to add to their retirement allowance through the election of Option 4C. Option 4C is the provision where PERS fronts a retiree with an additional amount (calculated as a percentage of age 62 Social Security entitlement) until the member attains age 62. At this age, the member's PERS benefit is reduced so that the member's income (the sum of PERS and Social Security benefits) remains level.

The second (2) issue examined by the Consultant is whether or not the retirement income from PERS is reasonably protected against the effects of inflation. The Consultant utilizes "replacement ratio" with very limited examples to conclude that the benefit formula for PERS does provide retirement income which is reasonably protected against the effects of inflation. The replacement ratios provided by the Consultant are in line with those of PERS' 1992 Benefit Adequacy Study. The retirement income used to compute the replacement ratios includes the portion of the retirement benefit provided by employee contributions to the system. In the PERS' Benefit Adequacy Study of 1992, the actuary developed replacement ratios financed by employer contributions only. Not surprisingly, the replacement ratios for ages 62 and 65 were less than 70% across all levels for members retiring with 30 or fewer years of service. It is further noted that the examples used by the Consultant included Social Security benefits (ages 62 and 65). It would be interesting to see the Consultant's replacement ratios using only the employer purchased benefit and excluding the Social Security benefit prior to age 62.

Even with Social Security and employee purchased benefits included, the draft report shows a loss in purchasing power of the retirement income throughout retirement. The major reason for this loss in real income is that the cost-of-living adjustments are not compounding and are less than the assumed inflation rate.

On issue (3) the Consultant concludes that, "PERS has benefited from a 'bull' market, which appears to be the by-product of a diversified portfolio." We agree that PERS' fund has been well positioned to fully participate in the market in recent years. In fact, the average annual return of the fund over the last four years has been 17.8% and 19.2% over the last two years. These returns contributed greatly to the current financial status of the system.

The Consultant has concluded with respect to issue (4) that, "Six months of a 'bear' market that constitutes a short-term investment loss should not have a long-term impact on the funded status of the system." While agreeing with the conclusion reached by the Consultant, PERS fails to see a direct correlation between the Consultant's narrative on this topic and the conclusion reached.

The major economic assumption that must be made by the Board of Trustees, assisted by the actuary and investment consultant, is that of rate of return on the investments of the system. PERS has assumed that the average annual rate of return on investments will be 8.0%. Short-term investment losses or gains have little long-term impact on the funded status of the system. Through the implementation of an investment policy (asset allocation), the Board has put in place a well diversified portfolio that is designed to provide high, long-term returns within an acceptable risk level. This same diversification will minimize investment losses in a down market.

The Governmental Accounting Standards Board (GASB) requires that assets of a retirement system be valued on a market related basis. To further minimize the effects of short-term fluctuations in the markets and thus in investment returns, the Board of Trustees, upon advice from the actuary, has adopted a five-year rolling market return. This actuarial asset valuation method tends to have a smoothing effect as all the gains or losses are not taken into consideration in any one valuation period.

Lastly, the Consultant has deemed the amortization period of the Unfunded Actuarial Accrued Liability not an appropriate measure of the funded status of the system. In 1996 and 1997 the Consultant has indicated that PERS places <u>too much emphasis</u> on the amortization of the unfunded accrued liability as a measure of the funded status. However, until now, there has been no indication that the Consultant believed that this method <u>was not appropriate</u>.

PERS has over the last two to three years made concerted efforts to publicize the funded status of the system using two or more recognized measures to do so. In addition to the use of the amortization period for the unfunded accrued liability, the system has also used the ratio of assets to the accrued liabilities (funded ratio) and the ratio of the unfunded accrued liability to the payroll. Having learned that the PEER Consultant believes that the amortization priod for the unfunded accrued liability is not an appropriate measure for the funded status of a retirement system, PERS staff has conducted an informal survey with three major, national actuarial firms that perform actuarial services for statewide public plans in approximately forty states. Preliminary survey results place the PEER Consultant at odds with his fellow actuaries. Consider that the vast majority of the systems involved with these three firms use the entry-age normal actuarial cost method, the method used by PERS of Mississippi. All systems that use this cost method calculate the amortization period and use it as one measure of the system's funded status. Also, all systems calculate the other measures required by GASB with some systems using the Funded Ratio as a prime measure of the status.

PERS will continue to survey all state systems to determine what cost method is being used and the extent to which the amortization period for unfunded accrued liability is relied upon. A copy of the research/survey report will be made available to the PEER Committee.

Again, PERS staff agrees with the overall conclusion and tenor of the report. We appreciate the opportunity to provide the Committee and the PEER staff with the above comments. Should you have any questions, please feel free to contact me.

Sincerely,

Frank Ready

Frank Ready
Executive Director

FR:bwp

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