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FY 1992 Actuarial Review of the Public Employees' Retirement System of Mississippi

April 13, 1993

The PEER Committee

Mississippi Legislature

The Mississippi Legislature
Joint Committee on Performance Evaluation and Expenditure Review
PEER Committee

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April 13, 1993

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According to MISS. CODE ANN. Section 25-11-101 (1972), the PEER Committee is required "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."

The PEER Committee engaged Bryan, Pendleton, Swats & McAllister, Actuaries and Consultants, to prepare the enclosed actuarial review of PERS for FY 1992. PEER released this report, entitled **FY 1992 Actuarial Review of the Public Employees' Retirement System of Mississippi**, at its April 13, 1993, meeting. The actuary's letter on page vii presents a brief summary of the report's findings and recommendations.

Representative Cecil McCrory, Chairman

This report does not recommend increased funding or additional staff.

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ACTUARIAL REVIEW
OF THE
PUBLIC EMPLOYEES' RETIREMENT SYSTEM
OF MISSISSIPPI

December, 1992

Prepared
by
Bryan, Pendleton, Swats & McAllister
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December 11, 1992

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

Gentlemen:

We are pleased to present our actuarial review of the Public Employees' Retirement System of Mississippi (PERS), prepared according to our agreement with you.

This 1992 review consists, in most part, of a comparison of benefit levels, contributions rates, and the funded status of PERS to similar systems nationally and nine systems in the Southeast. The nine states in the Southeast used for comparison are Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, North Carolina, South Carolina and Tennessee.

A brief summary of our finds are as follows:

1. Retirement allowances provided by PERS compare favorably to similar systems nationally and are above average when compared to the allowances provided by the systems of the nine comparison states.

2. Employer contribution levels, as a percentage of active member payroll, are near average both nationally and for the comparison states.

3. Employee contribution rates are well above national averages and are the highest among the nine comparison states.

4. Asset accumulation by PERS toward the payment of promised benefits lags well behind the norm for other systems, both regionally and nationally.

Our recommendation is that emphases should be placed on improving the funded status of the plan. The historical practice of funding benefit increases through the extension of the amortization period of the unfunded accrued liability should be abandoned. This amortization period should be fixed. In order to add necessary discipline to the system, future benefit increases should result in increased contributions.

We appreciate the opportunity of serving the PEER Committee and are available to answer any questions concerning this report.

Sincerely,

Michael E. Brister

Michael E. Brister, F.S.A.

MEB:spl

Enclosures

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I. INTRODUCTION

The purpose of this report is twofold. We will make a comparison of retirement benefits provided by the Public Employees' Retirement System of Mississippi (PERS) with similar systems covering general state employees in other states in the Southeast. A similar comparison of the funded status of PERS will also be made. Information on other systems derived from national surveys will be used where available.

The states in the Southeast selected for comparison are Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, North Carolina, South Carolina and Tennessee. Our primary sources of information are the annual component unit financial reports prepared by each of the selected systems.

We also used the November 1991 publication of the Government Finance Officers Association, Survey of State and Local Government Employee Retirement Systems, by Paul Zorn to extend our comparisons to similar systems nationwide.

Throughout this report, we will determine two statistics when comparing PERS to other regional systems. They are as follows:

Median - Middle of a distribution. The statistic which divides the group in half when ranked in order by magnitude.

Mean - Average of a distribution. The sum of the data in a sample divided by the number in the sample.

When calculating the median and the mean we will not include Mississippi. We will also rank the systems. As always, when making comparisons with a small group, care should be taken when interpreting the results.

II. NORMAL RETIREMENT BENEFITS

Our report is restricted to the major features of the retirement systems maintained for the benefit of general state employees. Special system features maintained for categories of employees, such as firefighters or police, are not considered.

In general, the formula for the normal retirement allowance is based on final average earnings (FAE) and follows the following form:

FAE times Annual Benefit Percentage times years of service

For example, the retirement allowance for Arkansas is equal to average earnings for the highest five consecutive years, times 1.55%, times years of service.

There are some variations on this basic form as follows:

1. The Annual Benefit Percentage for Mississippi increases from 1-7/8% to 2% for service after 25 years.

2. Tennessee provides an additional benefit using an additional Annual Benefit Percentage of .25% for compensation in excess of the average of the Social Security taxable wage bases.

Louisiana is one of only seven states nationwide that does not participate in the Social Security system. As a result, we will make adjustments when appropriate to data for Louisiana to make the comparisons uniform.

The following compares the Annual Benefit Percentage for the states in our region. The variations for Mississippi and Tennessee described above were ignored. The Annual Benefit Percentage for Louisiana was adjusted from 2.50% to 1.05%, due to the lack of Social Security benefits.

	Annual Benefit Percentage	Rank
Mississippi	1.875%	3
Alabama	2.0125	1
Arkansas	1.55	8
Florida	1.60	7
Georgia	1.64	5
Kentucky	1.97	2
Louisiana	1.05	10
North Carolina	1.64	5
South Carolina	1.82	4
Tennessee	1.50	9
Median	1.64	
Mean	1.64	

The results from the national survey mentioned in the introduction are as follows:

	Mean Annual Benefit Percentage
South Region	2.17%
100,000 + Active Members	1.75
$1-10 Billion Assets	1.83

The Annual Benefit Percentage is only one part in determining the level of benefits. Other items include the period used for determining final average earnings, and the age and service requirements for unreduced benefits.

In order to take these other items into account, we calculated benefits under each system for a hypothetical employee attaining age 65 with 30 years of service and earnings of $25,000 in final year of employment with a 5% salary scale. We made the comparison based on the portion of earnings in final year replaced by the retirement allowance.

	Age 65 and 30 Years of Service Retirement Allowance as % of Final Earnings	Rank
Mississippi	52.94%	3
Alabama	57.55	1
Arkansas	42.29	8
Florida	45.82	6
Georgia	48.05	5
Kentucky	53.71	2
Louisiana	31.54	10
North Carolina	45.79	7
South Carolina	52.03	4
Tennessee	41.38	9
Median	45.82	
Mean	46.46	

III. EARLY RETIREMENT BENEFITS

Another important measure of the benefit level is the period of service required for payment of the retirement allowance without any reduction for early receipt of the benefit. Reductions in requirements for receipt of unreduced benefits, generally add substantially to the cost of a system.

The following compares the service requirement for unreduced benefits.

	Years of Service For Full Benefit	Rank
Mississippi	25	1
Alabama	25	1
Arkansas	30	3
Florida	30	3
Georgia	30	3
Kentucky	27	2
Louisiana	30	3
North Carolina	30	3
South Carolina	30	3
Tennessee	30	3
Median	30	
Mean	29	

Most of the states allow immediate receipt of a benefit for early retirement on a reduced basis if the conditions for unreduced benefits have not been met.

We calculated an early retirement allowance for our hypothetical employee assuming retirement at age 55 with 25 years of service, earnings of $25,000 in final year of employment with a 5% salary scale.

	Age 55 and 25 Years of Service Immediate Retirement Allowance as % of Final Earnings	Rank
Mississippi	43.63%	2
Alabama	47.95	1
Arkansas	14.11	9
Florida	23.62	8
Georgia	0	10
Kentucky	40.32	3
Louisiana	39.60	4
North Carolina	26.74	6
South Carolina	34.68	5
Tennessee	26.21	7
Median	26.74	
Mean	28.14	

IV. COST-OF-LIVING ADJUSTMENTS

Of the 10 states used in our comparison, only two do not provide for annual automatic increases in retirement benefits based upon increases in the Consumer Price Index. They are Alabama and Kentucky. The following chart compares the limit on the cost-of-living adjustment (COLA) for the other eight states.

	Limit in Annual COLA Based on CPI
Mississippi	2.5% of original benefit
Alabama	no automatic annual increases
Arkansas	3%
Florida	3%
Georgia	3%
Kentucky	no automatic annual increases
Louisiana	3%
North Carolina	4%
South Carolina	4%
Tennessee	3% of original benefit

V. CONTRIBUTIONS

The following is a review of the contribution rates for the systems. All the systems except Louisiana are funded as a level percent of covered payroll. We have adjusted the rates for Louisiana to take into account that Louisiana is not in the Social Security system.

	Employer Contribution Rate as % of Pay	Rank
Mississippi	9.75%	4
Alabama	7.12	9
Arkansas	10.00	3
Florida	15.72	1
Georgia	15.16	2
Kentucky	8.66	6
Louisiana	5.45	10
North Carolina	9.21	5
South Carolina	7.70	8
Tennessee	7.85	7
Median	8.66	
Mean	9.65	

The results from the national survey are as follows:

	Mean Employer Contribution Rate
South Region	14.76%
100,000 + Active Members	10.37
$1-10 Billion Assets	12.99

Mississippi's employer contribution rate is near average both nationally and for the comparison states. Next we consider the employee rates. Employees in Louisiana do not contribute at a rate higher than the Social Security tax rate for employees, so for our analysis we consider the Louisiana system as noncontributory.

	Employee Contribution Rate as % of Pay	Rank
Mississippi	7.25%	1
Alabama	5.00	4
Arkansas	0	8
Florida	0	8
Georgia	1.25	6
Kentucky	5.00	4
Louisiana	0	8
North Carolina	6.00	2
South Carolina	6.00	2
Tennessee	2.77	7
Median	2.77	
Mean	2.89	

The results from the national survey are as follows:

	Mean Employee Contribution Rate
South Region	6.91%
100,000 + Active Members	5.59
$1-10 Billion Assets	5.53

The next chart compares the contribution levels combined for the employer and employees as a percentage of payroll.

	Combined Contribution Rate as % of Pay	Rank
Mississippi	17.00%	1
Alabama	12.12	7
Arkansas	10.00	9
Florida	15.72	3
Georgia	16.41	2
Kentucky	13.66	6
Louisiana	5.45	10
North Carolina	15.21	4
South Carolina	13.70	5
Tennessee	10.62	8
Median	13.66	
Mean	12.54	

The results from the national survey are as follows:

	Mean Combined Contribution Rate as % of Pay
South Region	21.67%
100,000 + Active Members	15.96
$1-10 Billion Assets	18.52

VI. FUNDED STATUS

A review of benefits and contribution levels leads naturally to a comparison of the funding status, or financial health, of PERS with other systems. In order to make these comparisons, we will need the following definitions.

<u>Pension Benefit Obligation</u> (PBO) is a standardized disclosure measure of the present value of pension benefits, adjusted for the effects of projected salary increases and step-rate benefits, estimated to be payable in the future as a result of employee service to date. The PBO is independent of the funding method used by the system to determine contributions.

<u>Actuarial Accrued Liability</u> (AAL) is the portion of the present value of future benefits not covered by future normal cost contributions. The AAL is dependent upon the funding method used by the system to determine normal costs.

<u>Unfunded Accrued Liability</u> (UAL) is the excess, if any, of the AAL over the value of plan assets.

Analysis of the PBO, by itself, can be misleading. Expressing the net assets available for benefits as a percentage of the PBO provides one indication of a system's funding status on a going-concern basis. Analysis of this percentage over time indicates whether a system is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the system.

The following is from the June 30, 1991 PERS Annual Actuarial Valuation prepared by Gabriel, Roeder, Smith & Company.

Analysis of Funding Progress
PERS of Mississippi
($ in thousands)

Fiscal Year Ended	(1) Net Assets Available	(2) Pension Benefit Obligation	Percent Funded (1)/(2)
6-30-86	$2,523,570	$3,276,754	77.0%
6-30-87	2,926,177	3,691,059	79.3
6-30-88	3,222,969	4,016,686	80.2
6-30-89	3,609,293	5,324,657	67.8
6-30-90	4,061,773	5,949,750	68.3
6-30-91	4,545,941	6,656,365	68.3

The above indicates that the funded status of PERS has not grown stronger since the mid 1980's.

We can also compare the above funding percentage to our selected group of Southeastern states and to systems nationally.

	Assets as % of PBO	Rank
Mississippi	68.30%	9
Alabama	103.27	4
Arkansas	120.02	1
Florida	69.09	8
Georgia	84.76	6
Kentucky	90.02	5
Louisiana	55.92	10
North Carolina	103.48	3
South Carolina	71.75	7
Tennessee	106.55	2
Median	90.02	
Mean	89.43	

The results from the national survey are as follows:

	Mean Assets as % of PBO
South Region	83.30%
100,000 + Active Members	86.60
$1-10 Billion Assets	83.00

As stated above, the method used for calculating the PBO is standard but the assumptions may vary from system to system, which adds an additional challenge when making comparisons. The calculation of the PBO is especially sensitive to the interest rate and salary assumptions used. However, the rates used by our comparison states were very close together. Appendix 2 gives more information about the PBO for our comparison states.

The "1992 Report on Funding Levels For State Retirement Systems," prepared by Stephen J. Church of Wilshire Associates Incorporated, looked at 81 state sponsored retirement systems in all 50 states and the District of Columbia. The report attempts to solve the problem of varying assumptions in calculation of the PBO by making adjustments to the reported PBO values for variations in interest rates and salary scales.

The 1992 Report on Funding Levels ranked the 50 states and the District of Columbia according to the adjusted funding percentage. The results for Mississippi and our comparison states are as follows.

	Rank Nationally From Highest to Lowest of Assets as a Percentage of PBO
Mississippi	38
Alabama	12
Arkansas	7
Florida	32
Georgia	13
Kentucky	27
Louisiana	47
North Carolina	5
South Carolina	35
Tennessee	8

The UAL is of particular interest when reviewing the funded status of a system. The UAL represents the portion of the employer cost for prior service which is generally amortized over the longest period. The deferral of too much cost through the UAL can be a serious problem for a system. Most systems fund the UAL as a level percentage of covered payroll. Expressing the UAL as a percentage of active member covered payroll aids in measuring the progress by a system towards accumulating sufficient assets. The smaller the ratio of UAL to covered payroll, the stronger the system.

The following is from the June 30, 1991 PERS Annual Actuarial Valuation.

Summary of UAL
PERS of Mississippi
($ in thousands)

Valuation Date June 30	UAL	Active Member Payroll	UAL as a % of Payroll
1986	$ 845,179	$1,676,489	50.41%
1988	1,012,047	1,826,922	55.40
1989	2,364,112	2,266,336	104.31
1990	2,547,537	2,394,069	106.41
1991	2,889,833	2,499,679	115.61

The UAL as a percentage of payroll has increased dramatically since 1986 for PERS and is now well over 100% of covered pay. This indicates that the funded status of PERS has grown weaker over the last five years.

The following compares the UAL as a percentage of covered payroll for our comparison states. Remember, the lower the ratio of UAL to payroll, the stronger the system.

	UAL as a % of Covered Payroll	Rank
Mississippi	115.60%	9
Alabama	14.34	3
Arkansas	0	1
Florida	114.35	8
Georgia	68.82	7
Kentucky	38.15	4
Louisiana	144.85	10
North Carolina	11.51	2
South Carolina	59.77	6
Tennessee	45.56	5
Median	45.56	
Mean	55.26	

VII. REVIEW OF BENEFIT ADEQUACY

In the October 30, 1991 Actuarial Review of PERS, prepared by our firm, we calculated net replacement ratios to gauge the adequacy of PERS retirement benefits. We determined the ratio as:

Net Retirement Income
divided by
Net Preretirement Income

Net Retirement Income is after tax income from PERS and Social Security. Net Preretirement Income is after tax income in the year before retirement. We varied the calculations by age at retirement, years of service, income and marital status.

The results showed replacement ratios in excess of 100% for most categories for employees with at least 20 years of service at retirement. We concluded that benefits were certainly adequate and could be categorized as generous.

A similar study entitled "Public Employees' Retirement System of Mississippi 1992 Benefit Adequacy Study," was prepared by the PERS actuary, Gabriel, Roeder, Smith & Company, and published June 22, 1992. We found the conclusions from both studies to be very similar. In addition, the 1992 study went further and considered the effects of inflation. However, we disagreed with some of the methodology used in determining replacement ratios in the 1992 study.

The benefit payable by PERS in that study was adjusted to a joint and 50% survivor benefit in calculating the ratios for married members. Election of an optional form of benefit represents a purchase by a retiring participant of a death benefit. Adequate death protection is a concern of a member of PERS both before and after retirement. The expense of providing income replacement as a death benefit is not deducted, in the study, from pre-retirement income. In addition, the normal form of benefit payable guarantees the return of employee contributions with interest and is a material death benefit. Therefore, we believe the net replacement ratios calculated for married participants in the 1992 study are understated in the order of 4 to 5%.

In the introduction, the 1992 study defines replacement ratios as "post-retirement disposable income after taxes in a given year divided by pre-retirement disposable income after taxes in the year prior to retirement." However, to calculate the ratios, the study used net income in the year prior to retirement increased by 5% for inflation. Thus, the ratios are not based on income in year prior to retirement, as described in the introduction, but on projected net income which would have been received in year of retirement. The ratios actually calculated are understated by an additional 5% over what is defined in the introduction of the study.

Researchers at the Center for Risk Management and Insurance Research at Georgia State University have prepared studies to address the issue of adequate retirement income. Their most recent result is "The 1991 Retire Project Report" by Bruce A. Palmer. This study defined adequate retirement income as the "amount needed by retirees to continue their preretirement standard of living into their retirement years."

The study took into account the differences in tax rates, rates of saving and changes in work-related and age-related expenses. The result was to develop replacement ratios based on gross income for a worker age 65 with a spouse age 62.

Using the same salary scale assumptions as used by the PERS actuary for the June 30, 1991 PERS valuation, we have calculated gross income replacement ratios for a member age 65 with a spouse age 62 to compare with the results of "The 1991 Retire Project Report."

Based on this report, someone retiring at age 65, with a spouse age 62, would need 85.2% of his preretirement gross income of $20,000 to maintain his standard of living after retirement. The following chart compares gross income replacement ratios for service periods of 20, 25, 30 and 35 years taking into account PERS and Social Security benefits with the replacement ratios from the report.

Gross Replacement Ratios
Married - Age 65, Spouse Age 62

Pre-Retire Gross Pay	PERS and Social Security Service at Retirement				The 1991 Retire Project Report
	20	25	30	35	
$15,000	99.9%	108.6%	117.9%	127.2%	88.4%
20,000	93.8	102.4	111.7	121.0	85.2
25,000	90.0	98.7	108.0	117.3	82.7
30,000	86.7	95.4	104.7	113.9	80.8
40,000	77.1	85.8	95.0	104.3	80.2
50,000	70.2	78.8	88.1	97.4	77.7
60,000	64.7	73.4	82.7	91.9	77.1
70,000	60.4	69.1	78.4	87.7	76.2

For most of the service periods and salary ranges PERS benefits appear to be adequate and in most cases are much greater than income deemed to be required by The 1991 Retire Project Report.

VIII. SUMMARY

The findings of our review may be summarized as follows:

1. PERS benefit levels for normal retirement are in line with national levels for similar systems and are above average among our comparison states in the Southeast.

2. The rate of employer contributions for PERS, as a percentage of payroll, is very close to national averages and is close to the average for the comparison states.

3. The rate of employee contributions for PERS is the highest among our comparison states and is well above national averages.

4. PERS lags behind the average both nationally and for the comparison states in the standards used to measure the accumulation of assets sufficient to cover payment of promised benefits.

Appendix 1

SURVEY OF PUBLIC RETIREMENT SYSTEMS

BASIC BENEFIT FORMULA

State	Basic Benefit Formula	Final Earnings Period
Mississippi	(.01875 x Years + .00125 x Years over 25) x FAE	Highest 4 Consecutive Years
Alabama	.020125 x Years x FAE	Highest 3 Consecutive Years of Final 10
Arkansas	.0155 X Years x FAE	Highest 60 Months
Florida	.016 x Years x FAE (Gradual increase after 30 Years at age 62)	Highest 5 Years
Georgia	.0164 x Years x FAE	Highest 8 Quarters
Kentucky	.0197 x Years x FAE	Highest 5 Years
Louisiana	.025 x Years x FAE plus $300 if member before 7-7-86	Highest 3 Consecutive Years
North Carolina	.0164 x Years x FAE	Highest 48 Consecutive Months
South Carolina	.0182 x Years x FAE	Highest 12 Quarters
Tennessee	.015 x Years x FAE + .0025 x Years x (FAE in excess of SSIL)	Highest 5 Consecutive Years

Appendix 1

SURVEY OF PUBLIC RETIREMENT SYSTEMS

QUALIFICATION

State	Normal Retirement Qualification	Early Retirement Qualification	Early Retirement Reduction
Mississippi	25 Years or Age 60 & 4	None	NA
Alabama	25 Years or Age 60 & 10	None	NA
Arkansas	30 Years or Age 65 & 10	Age 55 & 10 Years	6% for Each Year Early
Florida	30 Years or Age 62 & 10	After 10 Years Service	5% for Each Year Early
Georgia	30 Years or Age 65 & 10	Age 60 & 10 Years	5% for Each Year Under 65
Kentucky	27 Years or Age 65 & 4	Age 55 & 5 Years or 25 Years	5% for Each Year Under 65 or 27 Years
Louisiana	30 Years or Age 55 & 25 or Age 60 & 10	10 Years & 50	2.5% for Each Year Early
North Carolina	30 Years or Age 60 & 25	20 Years & 50 or 5 Years & 60	3% a Year Under 65
South Carolina	30 Years or Age 65	1. Age 60 or 2. 55 & 25 Years	1. 5% for Each Year Under 65 2. 4% for Each Year Under 30
Tennessee	30 Years or Age 60 & 10	10 Years & 55	4.8% per Year Early

Appendix 2

LIABILITIES, ASSETS AND COVERED PAY
($ IN MILLIONS)

State	Date Determined	Interest Rate for PBO	PBO	UAL	Assets(1)	Pay of Active Members
Mississippi	6-30-91	8.00%	$ 6,656	$ 2,889	$ 4,546	$ 2,500
Alabama	9-30-89	8.25	2,387	NA	2,465	NA
Alabama	9-30-90	NA	NA	208	NA	1,450
Arkansas	6-30-91	7.50	1,264	0	1,517	648
Florida	6-30-91	8.00	33,819	15,893	23,366	13,898
Georgia	6-30-90	7.50	3,603	1,053	3,054	1,530
Kentucky	6-30-91	8.00	2,125	375	1,913	983
Louisiana	6-30-91	8.25	4,499	1,983	2,516	1,369
North Carolina	12-31-90	7.50	13,659	645	14,135	5,606
South Carolina	7-1-90	8.00	9,497	2,083	6,814	3,485
Tennessee	6-30-91	8.00	8,831	1,657	9,409	3,637

(1) Net assets available for benefits were valued at an amortized cost for all systems.

Appendix 3

PERS AND SOCIAL SECURITY BENEFITS FOR A MEMBER WHO RETIRES AT AGE 65 WITH A SPOUSE AGE 62

Pay in Year Before Retire	Social Security Benefit	PERS Benefit Years of Service		
		20	25	30
$15,000	$ 9,778	$ 5,214	$ 6,517	$ 7,908
20,000	11,799	6,952	8,690	10,544
25,000	13,816	8,690	10,862	13,180
30,000	15,584	10,428	13,035	15,816
40,000	16,930	13,904	17,380	21,088
50,000	17,699	17,380	21,725	26,359
60,000	17,963	20,856	26,070	31,631
70,000	17,963	24,332	30,415	36,903

To project salary backwards, the salary scale used in the 6-30-91 actuarial valuation of PERS was used.

Agency Response

PERS

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April 23, 1993

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

RE: Response to FY 1992 Actuarial Review of the Public Employees' Retirement System of Mississippi by Bryan, Pendleton, Swats & McAllister

Dear Sirs:

At your request, we have reviewed the April 6, 1993 report entitled "Actuarial Review of the Public Employees' Retirement System of Mississippi" prepared by Bryan, Pendleton, Swats & McAllister for the PEER Committee of the Mississippi Legislature. We have requested that our Actuary, Gabriel, Roeder, Smith & Company respond to us with their comments regarding the report and have incorporated their response in our comments which follow.

The Board of Trustees and the Actuary wholeheartedly concur with the report's overall recommendation that "emphasis should be placed on improving the funded status of the plan." Such agreement indicated by the fact that the Board of Trustees last fall developed a legislative package that contained no benefit improvements that would increase the liability of PERS. It is important to note that many of the benefit improvements which have been initiated in the last several years were implemented by the Legislature and not by PERS. Two examples would be the 25-year retirement and four-year vesting.

The report to the PEER Committee compares PERS to nine states in the Southeast with regard to benefit and funding levels. One of the states included, Louisiana, has no Social Security coverage for its employees. Although the report attempts to make an adjustment when comparing benefit levels, the

adjustment is necessarily somewhat arbitrary. Since the report notes "as always when making comparisons with a small group, care should be taken when interpreting the results." Perhaps it would have been better to eliminate Louisiana entirely from the comparison group as opposed to making adjustments in the benefits. It should also be noted that in addition to Louisiana, four of the other states (Alabama, Arkansas, Georgia, and Kentucky) have separate systems for state employees and teachers, and North Carolina has a separate system for local government employees. We are unsure how these systems would have affected the results, but they probably should have been included for completeness since PERS covers all of these groups in one system.

With regard to the benefit level comparison, the report shows the portion of final earnings replaced by each system for a member retiring at age 65 with 30 years of service. The PERS benefit is third highest of the group behind Alabama and Kentucky. In another section the report lists the cost-of-living adjustments provided by each system, but makes no comment as to the impact this will have on the benefit level previously calculated. Of the systems with COLA's (Alabama and Kentucky were listed as having no automatic COLA) PERS is the lowest, particularly since its COLA is based on the original benefit while all but Tennessee's are of the compound type.

The nine Southeastern states are also used as a basis for comparison of contribution levels and funded status in the report. Although we have no specific comments to make regarding the contribution levels, we would mention that systems use varying funding policies with regard to the unfunded accrued liability amortization period which would make direct comparisons of employer contribution levels extremely difficult.

The report also makes a number of observations to support its conclusion that "asset accumulation by PERS toward the payment of promised benefits lags well behind the norm for other systems, both regionally and nationally." With regard to those comments, I would offer the following comments received by Mr. Thomas J. Cavanaugh, F.S.A., Actuary with Gabriel, Roeder, Smith & Company, dated April 22, 1993:

> First, the report lists certain supplemental disclosure information from our 6/30/91 valuation report showing net assets available for benefits, pension benefit obligation and percent funded for each fiscal year since 6/30/86. The report then states "The above indicates that the funded status of PERS has not grown stronger since the mid 1980's." This statement is presumably made because the percent funded declined from 77.0% in 1986 to 68.3% in 1991.
>
> The reason for this decline is not that the funded status has deteriorated, but rather that significant benefit improvements were passed into law in the middle of the period. When benefit improvements first occur, the system realizes all the liability without an immediate offsetting asset. Since <u>future</u> contributions are not recognized in the percent funded, that number decreases. A more telling point regarding improved funding status can be seen

by noting that, absent the benefit improvements, the trend in percent funded is upward. In fact the 6/30/92 results showed a percent funded of 69.4%, higher than 1991.

Second, the report compares this percent funded for PERS with the other Southeastern states. The problem with this comparison is twofold. It is not known if any of the other states had experienced a major benefit improvement recently as had PERS, and as the report notes, the assumptions used in calculating the PBO vary from system to system.

Next the report refers to a 1992 Wilshire study on public system funding levels. Although we are not familiar with the 1992 study, we presume it is an update of the work done in 1990. The problem with that study was that it made adjustments to reported results in an attempt to put all systems on the same assumption basis. Concern was expressed by a number of actuaries as to the manner in which the adjustment was made rendering the study's conclusions somewhat suspect.

The report to the PEER Committee concludes the funding section with a comparison of unfunded accrued liability (UAL) as a percent of payroll for each of the Southeastern states. The same basic comments made above regarding the percent funded comparison would apply here. In addition, it is not clear what asset valuation method is used by each State in developing the UAL. If some use a market-related value, the UAL would in all likelihood be lower than they would be if the systems used book value, as does PERS.

We are not sure why it was necessary to review the Benefit Adequacy Study done in 1992, but since the report to the PEER Committee takes exception to some of the methodology used, we feel it is necessary to respond.

First, the report questions why we used a 50% joint and survivor form of benefit payment when developing the replacement ratios for married members. As our study indicates we did this so as to be consistent with the manner in which Social Security benefits are paid to a married couple with one non-working spouse. The PEER report notes that this is a form of death benefit and suggests that some deduction in pre-retirement income should have been made to reflect the cost of this death benefit. It goes on to state that the normal form of benefit payment guarantees a return of employee contribution which is also a form of death benefit. While we agree with this, we unfortunately do not see the point. In any event, we do not see how our use of the 50% J&S form of benefit is materially different from the approach in last year's PEER Committee report of using a Social Security leveling form of benefit payment for members who retire prior to age 62.

Second, the report notes what the author apparently considers an inconsistency in the study wherein we stated that replacement ratios were post-retirement income divided by pre-retirement income and then went on to more fully explain that we adjusted pre-retirement income for the effect of one year's inflation when generating results so as to be sure we were comparing dollars in constant terms. Again we fail to see the problem. We are not aware of any nationally accepted method for determining replacement ratios, and would therefore only be concerned if the reader of our study would be unable to determine how we calculated the replacement ratios. This was obviously not the case since the author of the PEER report was sufficiently informed to object to our approach.

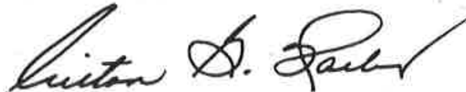
Finally, the PEER report presents replacement ratios for married members age 65 with a spouse age 62 (presumably non-working) at various salary and service combinations and compares the results with those obtained from a Georgia State University study that calculated what a married couple would require at varying income levels. The report concludes "For most of the service periods and salary ranges PERS benefits appear to be adequate and in most cases are much grater than income deemed to be required by the 1991 Retire Project Report."

We cannot comment on the University study results as we have not seen the report. We are heartened to know, however, that someone is able to determine to one-tenth of one percent precision what retirees need in post-retirement income levels. In any event, the comparison uses married results which ignore the single members of PERS as well as the married members where both spouses work. Finally, the comparison does not recognize the portion of post-retirement income financed by the member through employee contributions to PERS and FICA taxes.

In conclusion, let me emphasize that we are in agreement with the basic recommendation of the report to the PEER Committee that emphasizes the improved funding status of PERS. We sincerely believe that improvement will come with time based on current benefit and contribution levels. We also emphasize that increased benefits without corresponding increases in contributions will negatively affect the funding status of PERS.

Thank you for allowing us the opportunity to respond to this report.

Sincerely,



Milton G. Walker
Executive Director

MGW:et

cc: Board of Trustees
Thomas J. Cavanaugh

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