

**STATE OF LOUISIANA
LEGISLATIVE AUDITOR**

**Louisiana Employee
Compensation and Benefits**

**Staff Study
May 1996**



Performance Audit Division

*Daniel G. Kyle, Ph.D., CPA, CFE
Legislative Auditor*

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Office of Legislative Auditor
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LEGISLATIVE AUDITOR

May 13, 1996

The Honorable Randy L. Ewing,
President of the Senate
The Honorable H. B. "Hunt" Downer, Jr.,
Speaker of the House of Representatives
and
Members of the Legislative Audit Advisory Council

Dear Legislators:

This is our staff study of Louisiana Employee Compensation and Benefits. This study was initiated as part of Phase Two of the Select Council on Revenues and Expenditures in Louisiana's Future (SECURE) project. The study was conducted under the provision of Title 24 of the Louisiana Revised Statutes of 1950, as amended.

This staff study represents our findings, conclusions, and recommendations. We have also identified matters for legislative consideration.

Sincerely,

A handwritten signature in cursive script that reads "Daniel G. Kyle".

Daniel G. Kyle, CPA, CFE
Legislative Auditor

DGK/jl

[SEGBP]



Office of Legislative Auditor

Executive Summary

Louisiana Employee Compensation and Benefits Staff Study

Our study of the employee compensation and benefits in Louisiana state government found that for most Louisiana state workers:

- ♦ Salaries are low and have fallen considerably behind inflation.
- ♦ Annual and sick leave are generous for employees under civil service, but not necessarily for teachers.
- ♦ Holidays are average when compared with other state governments.
- ♦ Medical insurance is expensive because the state contributes a smaller portion towards it than any other state in the nation.
- ♦ Death benefits are good for long-service employees, but not for short-service ones.
- ♦ Long-term disability benefits are nonexistent or poor except for extremely long-service employees.
- ♦ Retirement benefits are good for long-service employees.

Glossary

Accrual Rate	The percentage of retirement benefit earned for each year of service.
Actuarial Accrued Liability	The amount of money that should be on hand now so that, together with the investment income that is expected to be earned on that amount, it will provide sufficient funds to pay retirement benefits attributable to the service rendered by employees up to the date the estimate is made.
Actuarial Reduction	A process by which an actuary calculates the benefit that would be payable based on the participant's service and compensation to date, then multiplies it by an early retirement factor. <i>This factor reflects the fact that benefit payments begin earlier than was originally contemplated and therefore extend over a longer period of time.</i> Also, the plan assets supporting these benefits earn less investment income before payments commence, and there will be no gain to the plan from participants dying before that time.
Actuary	A professional who uses statistical and economic techniques to evaluate the financial, economic, and business implications of future events.
Amortization Schedule	Amortization means paying off long-term debts over a period of years either through prepayment or the establishment of an account set aside specifically for that purpose. An amortization schedule sets forth the amount to be put aside each year to pay off the debt.
Annual Leave	Leave with pay granted to an employee for the purpose of rehabilitation, restoration, and maintenance of work efficiency, or transaction of personal affairs.
Benefit Formula	In the retirement systems, this is generally <i>Accrual Rate x Years of Service x Final Average Salary</i> . For example, a state employee retiring at age 55 with 30 years of service using a 2.5% accrual rate and based on final average earnings of \$28,000 per year would receive a maximum annual benefit of \$21,000 (.025 x 30 x \$28,000).

Department of State Civil Service (Civil Service)	A state agency responsible for administration and regulation of the state classified service. The department's responsibilities include hiring and recruiting of classified employees, job classification and compensation for classified employees, refereeing classified employee disciplinary appeals, and recordkeeping for classified employees. Civil Service also proposes personnel policies for classified employees to the Civil Service Commission, which is responsible for overseeing the state's merit system.
Classified/Unclassified	A classified employee is covered by civil service protections and prohibitions. An unclassified employee is subject to the authority of the employing agency as well as procedural and due process protections of the federal and state constitutions.
Co-Insurance	Insurance held jointly with another or others.
Cost-of-Living Adjustment (COLA)	An increase in salary or pension benefits to compensate for increases in the cost of living. These increases may be an automatic percentage, based on an index such as the CPI, or granted ad hoc as funds are made available.
Contributions	Payments made by the employer and the employee toward the funding of the state and statewide retirement systems, medical plans, or other benefit packages.
Consumer Price Index (CPI)	A commonly reported measure of inflation. This index is the product of information compiled by the Bureau of Labor Statistics of the U.S. Department of Labor.
Death Benefit	An amount paid under an insurance contract on the death of an insured.
Defined Benefit (DB)	A retirement plan that uses a predetermined formula to calculate a retirement benefit and obligates the employer to provide those benefits. Benefits generally are based on salary, years of service, or both.
Defined Contribution (DC)	A retirement plan that typically specifies the level of employer and employee contributions to a plan, but not the formula for determining eventual benefits.

Disability Coverage	Protection of employee income during short- and long-term illnesses. Short-term illnesses may be covered by sick leave and sickness and accident insurance. Illnesses that outlast sickness and accident insurance and sick leave provisions require long-term disability coverage, which typically replaces 60-67 percent of predisability salary.
Deferred Retirement Option Plan (DROP)	A program that allows a retiree to continue to work and earn a regular salary while accumulating credits in an account based on the amount that would otherwise be received as a monthly retirement benefit if he or she had retired.
Dual Referral	A legislative requirement that a bill must be referred to two committees before being sent to either house for a final vote.
Experience	In an actuarial context, statistics measuring what has occurred over a given period.
Experience Account	Established by Acts 572 and 1031 of the 1992 Regular Legislative Session to prefund future Cost-of Living Adjustment (COLA) benefits in Louisiana State Employees' Retirement System and Teachers' Retirement System of Louisiana, respectively, through the systems' investment earnings.
Final Average Salary (FAS)	The annual average of a retirement system member's highest consecutive 36-month career earnings.
General Fund	The principal operating fund of the state, through which the ordinary expenses of state government are paid.
Health Maintenance Organization (HMO)	A healthcare organization providing a prescribed set of benefits to an enrollee for a fixed payment, thus bearing the risk associated with delivering care.
Indemnity	Security against or compensation for damage, loss, or hurt.
Louisiana State Employees Retirement System (LASERS)	See "Retirement Systems."

Legislative Actuary	An individual who serves as the actuarial advisor to the legislature and is a member of the legislative auditor's staff. The actuary provides a variety of statutorily required actuarial and consulting services, including preparing actuarial cost reports for proposed legislation, reviewing actuarial valuations, preparing annual reports on public retirement systems, certifying Cost-of-Living Adjustments, and serving as a voting member of the Public Retirement Systems' Actuarial Committee. The actuary also offers audit support to the audit staff of the legislative auditor.
Medicaid	A program, jointly funded by the states and the federal government, that provides medical care for people whose income is below a certain level.
Medicare	A program under the Social Security Administration that provides medical care for the aged.
Member	An employee participating in a retirement or health plan. Membership in a retirement plan is mandatory for most state employees. For the state's health plans, membership is optional.
Mortality	The frequency of number of deaths in proportion to a population.
Normal Retirement Age	The age of the retirement plan participant at which the retirement benefit is payable without being actuarially reduced for early retirement. Under many plans, participants may retire under a wide range of ages, with appropriate adjustments to their benefits.
Normal Cost	The system's projected liability for benefits allocated to a certain year. In other words, how much it should cost to fund all the benefits that all the system employees will earn in one fiscal year.
One-Year Term Cost (1 YRTC)	An actuarial cost allocation method to measure the expected cost of benefits to be paid out in the next year.
Optional Retirement Plan (ORP)	A defined contribution retirement plan provided by a private carrier for academic and unclassified employees of Louisiana colleges and universities.

Preferred Provider Organization (PPO)	A healthcare organization providing participants with a higher benefit for services rendered by designated health care providers, such as hospitals and physicians who agree in advance to a given fee schedule, although participants are free to choose other providers at a lower level of reimbursement.
Public Retirement Systems' Actuarial Committee (PR SAC)	A committee charged by statute to make recommendations for general actuarial policy with regard to funding, unfunded accrued liability amortization, and actuarial assumptions. The committee also provides system valuations and may comment on other matters as appropriate. In addition, it advises the House and Senate legislative retirement committees and recommends employer contribution rates to those committees and the Joint Budget Committee. Members include the state treasurer, the commissioner of administration, the president of the Senate, the speaker of the House, the legislative actuary, two retirement system actuaries, and an independent actuary.
Qualified Preretirement Spousal Annuity (QPSA)	A benefit available to a married participant from the time he or she becomes vested in any accrued benefit until annuity starting date. This benefit is reduced by an early retirement reduction factor and a joint and survivor reduction factor. Payments are computed on the basis of benefits accrued to date of death, but do not begin until the date the participant would have reached his or her earliest retirement age.
Retirement	Termination of active service, with a retirement allowance.
Retirement Systems	<i>In Louisiana, the four state and nine statewide retirement systems. While the state is the plan sponsor for all 13, it acts as surety for the four state systems. These four systems--Louisiana State Employees' Retirement System (LASERS), Teachers' Retirement System of Louisiana (TRSLA), School Employees' Retirement System, and State Police Retirement System--are described on the following page.</i>

As of June 30, 1994

System	Number of Members	Who Belongs	Actuarial Asset Size	Percent Funded
LASERS	68,966	Most state employees including legislators, judges and court officials, corrections officers, wildlife agents	\$3,347,602,209	61.95%
TRSLA	85,262	School teachers, classroom personnel, lunchroom workers, unclassified employees of state colleges and universities	\$5,699,644,766	57.41%
School Employees	15,141	School workers other than classroom personnel	\$932,112,162	119.4% (fully funded)
State Police	664	Sworn and commissioned law enforcement officers	\$76,131,007	30.6%

**Service Credit
(creditable
service)**

Prior service plus membership service for which credit is allowable.

Sick Leave

Leave with pay granted an employee who is suffering with an illness or disability that prevents him or her from performing usual duties and responsibilities or who requires medical, dental, or optical consultation or treatment.

Social Security

A program established by the federal Social Security Act of 1935. It includes Old-Age, Survivors, Disability (OASDI) and Medicare insurance. State and local government employees are covered on an elective basis. Generally, career Louisiana state government employees are not covered unless they have also worked for an employer who is covered under Social Security.

**State Employees
Group Benefits
Program
(Group
Benefits)**

Offers accident and health, term life and dependent life coverages to all full-time employees, retirees, employees of governing boards and authorities who are under civil service, members of the legislature, and eligible dependents. The employer (usually the state) contributes approximately half of the premium for health and term life coverages.

**State
Retirement
Systems**

The four retirement systems whose benefits are funded and guaranteed by the state of Louisiana. State systems can present a warrant to the state treasurer for any unpaid monies due the system.

**Statewide
Retirement
Systems**

The nine retirement systems whose benefits are funded by ad valorem taxes or revenue sharing monies. Benefits for these systems are not guaranteed by the state constitution.

Survivor Benefit	In the Louisiana State Employees' Retirement System (LASERS) and Teachers' Retirement System of Louisiana (TRSLA), an annuity payable to the qualifying spouse, minor children, and mentally retarded children if certain conditions are met. <i>The member must be in state service, except in LASERS where a member is permanently entitled to this benefit if he or she has 20 or more years of service.</i>
TRSLA	Teachers' Retirement System of Louisiana (see "Retirement Systems").
Term Insurance	Life insurance protection for a limited number of years. <i>The face amount of the policy is paid only if death occurs during the stipulated term; nothing is paid if the insured survives.</i>
Unfunded Accrued Liability (UAL)	The portion of the accrued liabilities not covered by a system's assets.
Valuation Interest Rate	The actuarially assumed interest rate used in the valuation of system liabilities as of the valuation date.
Vested Benefits	Accrued benefits of a member that have become nonforfeitable under the vesting requirements adopted by his or her retirement system.
Window	In this study, refers to a limited time period in which a prospective retiree can participate in the Deferred Retirement Option Program (DROP).
Years of Service (YOS)	The number of years the member has been an active participant in the retirement system.

Chapter One: Introduction

Report Conclusions

Generally, for most Louisiana state workers:

- *Salaries are low and have fallen considerably behind inflation.* The salaries and salary ranges for certain classified civil service jobs are low when compared with other southeastern state governments and the local private sector. If these comparisons hold for all classified jobs, it would cost between \$52 million and \$201 million annually to bring salaries up to these levels. Louisiana classified state workers received only a 4 percent across-the-board increase during the period from 1985 to 1994, while the Consumer Price Index rose nearly 38 percent.
- *Annual and sick leave are generous for employees under civil service, but not necessarily for teachers.* Louisiana state workers earn more sick leave than all other states except for one. However, this generous allotment may partially compensate for the lack of disability insurance and Social Security. In contrast, Louisiana teachers' sick leave is below average. The annual leave state employees earn is also above national norms. Even though we cannot identify tangible savings for leave used, the higher annual and sick leave earned equates to \$40.3 million annually.
- *Holidays are average.* Louisiana grants its employees 11 holidays per year, which is the national average for state governments.

- ♦ ***Medical insurance is expensive.*** Louisiana ranks last among all states in the percentage it contributes toward its employees' medical insurance premiums for single coverage. The state ranks near the bottom in the percentage it contributes toward family coverage. Bringing the state's contribution to an average level for active employees in the indemnity plan would cost \$54 million per year, presuming enrollment would not change.
- ♦ ***Death benefits are good for long-service employees, but not for short-service ones.*** The state offers a group life insurance policy, but premiums are high due to the policy structure. Survivor benefits in the two retirement systems we studied can replace as much as 75 percent of a deceased employee's income, but this benefit is available only to employees who have been members at least five to ten years. Replacing the current benefit structures with a revised group life insurance policy might save approximately \$3 million to \$10.5 million per year initially, but may not be equitable since state employees do not have Social Security.
- ♦ ***Long-term disability benefits are nonexistent or poor except for extremely long-service employees.*** The only disability coverage to which the state contributes is found in the retirement systems. However, many LASERS and TRSLA members are not yet eligible for this benefit. Further, it takes the typical LASERS member 26 years to achieve a 65 percent salary replacement. Instituting a plan to provide this level of benefit for all LASERS and TRSLA members would cost \$11.5 million in the first year.
- ♦ ***Retirement benefits are good for long-service employees.*** As in most defined benefit plans, the percentage of preretirement salary replaced grows with each year spent on the job.

Because retirement benefits were not adequately funded for many years, the state in fiscal year 1994-1995 contributed more than \$400 million toward current benefits and paying off accumulated debt. We suggest to the legislature a few ways to control retirement system expenses:

- **A moderately revised plan for new members of Louisiana State Employees' Retirement System (LASERS) and Teachers' Retirement System of Louisiana (TRSLA) could save up to \$53 million annually by the time it has been in effect for 10 years.**
- **Eliminating the conversion of sick and annual leave to retirement credit may save as much as \$33 million in the first year.**

Study Initiation and Objectives

This staff study of Louisiana employee compensation and benefits was conducted as part of Phase Two of the Select Council on Revenues and Expenditures in Louisiana's Future (SECURE) project. The Office of Legislative Auditor and SECURE contracted with an independent actuarial firm, Milliman and Robertson Incorporated (M&R), for actuarial studies. The legislative actuary also contributed to this effort.

The Louisiana Legislature established SECURE through Senate Concurrent Resolution (SCR) 192 in the 1993 Regular Legislative Session. The council was created to develop recommendations to improve the financial future of the state and the quality of life of its citizens. The resolution provided for the council to be composed of 27 members representing state and local government, private industry, education, labor, and special interest groups. The legislature reauthorized SECURE through SCR 17 in the Third Extraordinary Legislative Session of 1994 and expanded its membership to 30. This continuation of effort is known as Phase Two of the SECURE project.

The SECURE Phase One report said that Louisiana does not comprehensively evaluate employee compensation and benefits. This study further explores some of the issues raised in the SECURE Phase One report. The goal of the study is to comment on the competitiveness of employee compensation and benefits, pointing out where benefits are overly generous as well as where improvements are needed with respect to the following:

- ♦ Salaries
- ♦ Retirement benefits
- ♦ Non-retirement benefits

In this study, we examined alternatives for restructuring benefits and present costs and savings associated with these changes. The Office of Legislative Auditor does not advocate any particular structure; rather, we present alternatives for legislative consideration. In a few cases, we make recommendations to agencies.

Background

Where an employee of a private sector corporation might have a complete compensation and benefits package provided by his or her employer, compensation and benefits for a state employee in Louisiana are administered by several different entities. For each employee, this may include his or her retirement system, a group insurance benefits organization, the Department of Civil Service, and administrative policies of the agency where he or she works.

Salary administration is developed by the Department of Civil Service for classified employees and by individual agencies for unclassified employees. Teachers' minimum salaries are set in statute, but individual school boards are allowed to pay more from their own funds.

Leave policies are developed by Civil Service for classified employees. Most agencies generally follow civil service rules for their unclassified employees as well. Some leave policies for teachers are set in statute while others are set by individual school boards.

Life insurance is available through three sources. One is a group term insurance policy through the State Employees Group Benefits Program (SEGBP), a state agency that administers the insurance for most of state government as well as some political subdivisions. The cost of this policy is partially paid by the state. Also, many private insurers are allowed to offer life insurance policies to state employees through payroll deduction, but the state does not share any of the cost. Finally, long-term state employees are eligible for a survivor benefit through the retirement systems. This benefit varies by retirement system, but typically it pays an employee's spouse and/or

children an annuity equal to 50-75 percent of the deceased employee's salary. To qualify, a member must have been working for the state for at least five to ten years at the time of death, depending on family composition.

Health insurance is administered through SEGBP. Most employees have a choice between a basic indemnity plan, which is structured with a preferred provider organization (PPO), and one of several health maintenance organizations (HMOs). Under the PPO, the state contracts with numerous physicians, pharmacies, hospitals, and other medical providers for lower charges. HMOs are private organizations that negotiate fees with providers, then charge whatever premium is necessary to cover anticipated expenses and make a profit. While SEGBP administers the PPO plan, it merely negotiates contracts and collects premiums for the HMOs. Employees compare premiums and benefits, then select the option that best suits their needs.

Disability coverage for disabilities of various lengths is available through three means. The first of these is accrued sick leave, which can cover short-term illness. The second is the employee's retirement system, which provides a long-term benefit computed like retirement benefits. Only system members with at least ten years' service in LASERS or five years' service in TRSLA are eligible. The third is individual disability policies available through payroll deduction, but the state does not contribute toward the premium. If the policy is short-term, benefits may not be collected for more than just a few years.

Retirement is available to state employees and teachers through one of four state retirement systems. This study focuses on LASERS and TRSLA, which are by far the two largest systems with approximately 69,000 and 85,000 active members, respectively. Retirement system membership is mandatory for employees of most state agencies and local school boards. Age and years of service requirements for benefits vary. Louisiana is one of a handful of states that does not contribute to Social Security. Therefore, Louisiana state employees are ineligible for Social Security benefits unless they have significant prior service with an employer that contributes to it. Retirement system members vest (have their benefits fully available) after 10 years, but if they leave state service before that time, they receive only their own contributions with no interest.

Scope and Methodology

This staff study was conducted under the provisions of Title 24 of the Louisiana Revised Statutes of 1950, as amended.

Scope. Our work began in October 1994 and was completed in September 1995. Because of data limitations, we used information from different sources to perform different parts of the study. These limitations are listed below or are clearly described within the body of the report.

Salaries and leave. We compared fiscal year 1994 pay for Louisiana civil service employee classifications with pay of other states in the southeast region and the Baton Rouge and New Orleans private sector. We were not able to analyze pay for medical employee classifications.

We compared civil service leave accrual rates and policies with those of other state governments using 1994 data when available. Our projections of leave are based on an analysis of the state's classified population. Reliable data were not available on salary and leave accrual for unclassified positions. We also compared the leave and 1995 salaries of Louisiana elementary and secondary school teachers with those of other states.

State Employees Group Benefits Program (SEGBP) medical and life insurance benefits. With the assistance of our contract actuary, Milliman and Robertson, we analyzed the competitiveness of the program's medical and life insurance rates and benefits. Data are from the 1994 and 1995 fiscal years. Our analysis includes an assessment of the effectiveness of the medical program's PPO, a review of SEGBP's medical rate setting and financial analysis methods, and a summary of other issues related to management of the group life insurance policy.

Retirement and ancillary benefits. The legislative actuary planned and executed an actuarial study of the benefit structure of two of the state's retirement systems, LASERS and TRSLA, using an extensive demographic database on the systems' members. These two systems were chosen because they are both underfunded and are the largest, representing about 90 percent of the population and actuarial assets of the four state systems. The other two state systems, Louisiana School Employees' Retirement System and State Police Pension and Retirement System, were excluded. The School Employees' system is fully funded and the State Police system covers law enforcement employees for whom eligibility requirements and benefit provisions typically differ because of the nature of their work. Also, all nine statewide systems were excluded since their

funding is provided by sources other than state general fund revenues. Most data are from the plan year ended June 30, 1994.

We also studied funding alternatives, which could apply to all four state retirement systems. Finally, we examined various oversight methods which the legislature could implement to monitor the systems.

Methodology. To analyze the competitiveness of salary and benefits for Louisiana employees, we researched and reviewed existing literature, studies, and data related to employee benefits. We relied primarily on the studies listed in Appendix A.

To understand and obtain data for specific study items related to Louisiana's benefit structures and policies, we contacted:

- ♦ 14 major Louisiana private sector employers
- ♦ 20 Louisiana school systems
- ♦ Louisiana Senate staff
- ♦ Louisiana State Treasury staff
- ♦ LASERS and TRSLA staff
- ♦ SEGBP and their consultants
- ♦ Louisiana Department of Civil Service staff
- ♦ Louisiana Department of Education staff
- ♦ Louisiana Division of Administration staff
- ♦ Representatives of other state governments
- ♦ National Council of State Legislatures (NCSL)
- ♦ Life Insurance Marketing Research Council (LIMRA)
- ♦ American Council on Life Insurance (ACLI)

To understand the legal authorization, requirements, and restrictions related to employee benefits, we reviewed state laws pertaining to all areas of employee benefits. In addition, we reviewed lawsuits related to specific benefit issues. We also consulted with the general counsel of the Office of Legislative Auditor on the legality of changing benefits in the retirement system.

M&R performed most of the work related to the medical and life insurance benefits. M&R's work on medical benefits, contained in three reports, is included as Appendixes L, M, and N.

M&R, along with the legislative actuary, also performed the analyses relating to retirement benefits. M&R's contribution on this subject is included as Appendix O.

Areas for Further Study

During this study, we noted areas that warrant further consideration. Time and resource constraints did not allow us to pursue these issues.

Central Management of Benefits. Results of a preliminary survey indicate that the majority of states have some form of common benefits management among the personnel, group insurance, and retirement benefit organizational structures. We conducted this survey because the SECURE Council recommended the formation of a Department of Human Resources. This department would manage traditional human resource functions in addition to developing a new compensation and benefits plan. Under SECURE's recommendation, the new plan would be administered by a single entity and would cover employee pay, retirement, insurance, and other benefits. We informally surveyed all 50 states to determine whether there is common management among these functions. Although many states appear to have common administrative management or coordination among two or more of these functions, each state may have a different interpretation of these relationships. Therefore, it is impossible to make a precise or conclusive comparison of management structures without extensive research and verification. Further study should be done to determine which states, if any, could serve as a role model for Louisiana if the legislature decides to move toward the consolidation of benefit management.

Study of a Defined Contribution Plan. The SECURE Council recommended the state study a defined contribution (DC) plan to replace the current defined benefit (DB) plan in the retirement systems. A DC plan designates a certain amount to be contributed, with the eventual retirement benefit based on whatever contributions and earnings have accumulated in the individual's account. In contrast, a DB plan sets a certain formula for eventual retirement benefits and attempts to provide adequate funding in time to pay them.

Preliminary actuarial studies indicate it may be costly in the early years to institute a DC plan. To clarify all the costs and benefits would require extensive legal, financial, and actuarial research. This subject is further discussed in Chapter Five.

Adoption of Social Security. One reason complex study would be required when considering a DC plan is Louisiana is one of six states that does not contribute to Social Security on behalf of most of its employees. If the state's benefit structures are significantly changed, adoption of Social Security may be required. The current mandatory employer contribution to Social Security is 7.65 percent of salary. Social Security provides retirement, survivor, and disability benefits and could possibly augment or substitute for other benefits currently in the retirement systems.

Report Organization

The remainder of this report is organized as follows:

- ♦ **Chapter Two** addresses employee salaries.
- ♦ **Chapter Three** addresses leave.
- ♦ **Chapter Four** addresses medical benefits and group insurance.
- ♦ **Chapter Five** addresses retirement benefit issues.
- ♦ **Appendix A** lists the primary sources used.
- ♦ **Appendix B** provides a comparison of southeastern public salaries to Louisiana civil service salaries.
- ♦ **Appendix C** provides a comparison of southeastern public salary ranges to Louisiana civil service salary ranges.

- ♦ **Appendix D** provides a history of various state salary increases.
- ♦ **Appendix E** addresses UAL contribution requirements and who contributes.
- ♦ **Appendix F** addresses UAL amortization under three types of schedules.
- ♦ **Appendix G** contains Texaco settlement applied to the unfunded accrued liability.
- ♦ **Appendix H** discusses standard defined benefit plan--new entrants.
- ♦ **Appendix I** lists current benefits in LASERS and TRSLA.
- ♦ **Appendix J** contains survivor and disability comparisons.
- ♦ **Appendix K** addresses deferred retirement option plan (DROP).
- ♦ **Appendix L** contains M&R's analysis of state employees group benefits program preferred provider organization.
- ♦ **Appendix M** contains M&R's analysis of state employees group benefits program competitiveness of premium rates and benefits.
- ♦ **Appendix N** contains M&R's analysis of state employees group benefits program rate setting methods and financial analysis.
- ♦ **Appendix O** contains M&R's employee preretirement death and disability benefit study for the state of Louisiana.

Chapter Two: Employee Salaries

Chapter Conclusions

Selected Louisiana civil service employee salaries are lower than those of comparable government employees in southeastern states, as well as those of private sector employees in Baton Rouge and New Orleans. In addition, the salary ranges for state civil service employees have not kept pace with inflation. Finally, Louisiana teachers' salaries are among the lowest in the southeast and the nation.

Overall Louisiana Civil Service Salaries Below Market

Salaries and salary ranges of workers in Louisiana state civil service are generally lower than their regional state government and local private sector counterparts. To measure the competitiveness of state compensation, we compared Louisiana civil service pay with that of southeastern state governments and with the private sector in-state. We conducted our comparisons in two ways: actual salaries and salary ranges. A salary is the amount that an individual employee currently makes within a specific salary range. A salary range denotes the minimum and maximum that an employer pays for a specific job classification. In Louisiana, pay ranges for classified employees are determined by the state Civil Service Commission.

While most of the surveyed salaries and salary ranges were below regional state government and the local private sector, a few were above. Therefore, any adjustments should be considered on a case-by-case basis rather than across the board.

We analyzed only comparable jobs for which data were available rather than a random sample of all Louisiana civil service job classifications. As a result, our projections of possible costs to the state if it paid salaries at market levels are not statistically valid. However, these projections do provide an indication of the potential costs if the state chooses to bring civil service pay up to market with other southeastern states or the Louisiana private sector.

Louisiana State Government Employees Earned Less Than the Average of Southeastern States

We compared salaries and salary ranges of 71 Louisiana civil service job classifications with similar job classifications in southeastern states. These 71 classifications represent 11,800 state employees, or 18 percent of the state classified workforce. The 14 states included in the comparison are:

Alabama	<i>Louisiana</i>	South Carolina
Arkansas	Mississippi	Tennessee
Florida	Missouri	Virginia
Georgia	North Carolina	West Virginia
Kentucky	Oklahoma	

Louisiana ranks 11th out of these 14 states in 1993 per capita income.

Salaries. For state employees in the southeast region, salaries averaged 3.57 percent higher than those of Louisiana's civil service employees. For workers in the 71 job classes we studied, bringing Louisiana salaries up to the level of the southeastern states would have cost \$7.9 million in fiscal year 1993-1994. If the same 3.57 percent difference were to hold true for all Louisiana civil service workers, it would have cost approximately \$52 million to bring Louisiana salaries up to the regional average. Exhibit 2-1 on the following page contains projections of potential costs to the state for raising salaries to the southeastern averages.

Appendix B provides detailed information on salaries we examined including the difference between the Louisiana and southeastern averages and the amount that the state would have paid to employees based on the southeastern average.

Exhibit 2-1
Potential Cost of Raising All 1994 Louisiana Civil Service Salaries to Southeastern Governmental Average

Total Amount These Employees Would Have Made in Average Southeastern State	\$228.6 million
What They Actually Made in Louisiana Civil Service	\$220.7 million
Difference or Cost to Bring These Salaries to Southeastern Market	\$7.9 million
Difference as a % of Actual Civil Service Salaries	3.57%
What ALL Civil Service Employees Would Have Made in the Average Southeastern State, Based on this Difference	\$1.52 billion
What ALL Civil Service Employees Actually Made in 1993-94	\$1.46 billion
Difference, or Cost to Bring ALL Civil Service Salaries to Southeastern Average	\$52 million

Source: Created by legislative auditor's employees from survey data supplied by the Department of Civil Service, including the *Southeastern States Salary Conference Salary Survey Report, 1994*.

Note: Based on differences in total pay of 11,805 employees in 71 job classes. Extrapolations are based on the only 71 jobs having common descriptions. Because of this limitation, this sample is not random and projections are therefore not statistically valid.

Salary ranges. For comparable job classifications, salary ranges in the southeast region averaged 8.9 percent higher than Louisiana civil service ranges. One reason salaries are low is salary ranges are low. Once an employee in a given position reaches the top of a range, he or she is ineligible for another salary increase unless there is a promotion or range adjustment. Approximately 28 to 33 percent of Louisiana civil service employees have reached the top of their salary range. To bring certain salaries to market levels, the state must first bring the salary range for the job classification to the market level.

For each of the 71 job classifications we examined, Appendix C lists the Louisiana salary range at the midpoint, the regional average, and the percentage difference between the two. Exhibit 2-2 on the following page shows the high and low extremes for the southeastern region comparison. For 55 of the 71 classifications, Louisiana ranges were below the regional average. However, the pay ranges for some Louisiana jobs were above the average.

Exhibit 2-2
Examples of Southeastern Regional Average Salary Ranges
Highest Above and Furthest Below 1994 Louisiana Civil Service Ranges

Job Classification	Louisiana Employees in Classification	Louisiana Civil Service Salary Ranges			Southeastern States Average Salary Ranges			Midpoint Percent Difference
		Minimum	Midpoint	Maximum	Minimum	Midpoint	Maximum	
Southeastern Region Salary Ranges Above Louisiana Civil Service Salary Ranges								
Baker 1	34	\$817	\$954	\$1,092	\$1,023	\$1,290	\$1,556	35.22%
Fisheries Specialist I	2	1,075	1,375	1,675	1,420	1,795	2,170	30.55%
Insurance Compliance Examiner Specialist I	2	1,408	1,800	2,192	1,800	2,276	2,752	26.44%
Mobile Equipment Operator Light	64	817	1,046	1,275	1,046	1,320	1,593	26.20%
Custodian I	1,775	737	927	1,116	897	1,156	1,415	24.70%
Southeastern Region Salary Ranges Below Louisiana Civil Service Salary Ranges								
Sanitarian Administrator	1	\$3,165	\$4,052	\$4,938	\$2,791	\$3,635	\$4,478	(10.29%)
Health Lab Director	1	3,875	4,963	6,050	3,397	4,334	5,271	(12.67%)
State Department Director of Planning and Budget	2	4,150	5,313	6,475	3,451	4,419	5,387	(16.83%)
Geologist II	20	2,415	3,092	3,768	1,910	2,465	3,021	(20.28%)
Corrections Warden IV	1	4,440	5,684	6,927	3,374	4,299	5,224	(24.37%)

Source: Prepared by legislative auditor's staff from information supplied by the Department of Civil Service, including the Southeastern States Salary Conference Salary Survey Report, 1994.

Civil Service Salaries Below Private Industry

State employees in the surveyed job classifications earned less than their private sector counterparts in Baton Rouge and New Orleans. We compared salaries and salary ranges of selected Louisiana civil service job classifications with similar job classifications in private industry. We chose the Baton Rouge and New Orleans areas because they represent the two largest employment markets in the state for both private industry and state government: over 25,000 civil service employees (39 percent of the total) work in these metropolitan areas. We compared salaries and salary ranges of 69 Louisiana civil service job classifications with similar classifications in Baton Rouge. We also compared 45 classifications with similar ones in New Orleans.

Salaries. Private sector employees in the jobs we studied in Baton Rouge and New Orleans earned 13.7 percent and 10 percent more, respectively, than similar workers in state civil service. This calculation is based on the average salary for each job. Because we were trying to match private sector jobs with civil service jobs, the jobs we studied in Baton Rouge were different, in many cases, from those we studied in New Orleans.

If the state had paid salaries for the 16,089 employees in the 69 positions we studied at the Baton Rouge average, it would have cost an additional \$39 million. The cost to bring salaries for the 12,996 employees in the 45 positions in the New Orleans market would have been \$22 million. If the percentage differences in total pay are projected to the entire Louisiana civil service population, bringing salaries up to private sector levels would annually require between \$201 million (based on the Baton Rouge difference) and \$147 million (based on the New Orleans difference). Exhibit 2-3 on the following page further explains these costs.

Exhibit 2-3		
Potential Cost of Raising All 1994 Louisiana Civil Service Salaries to Local Private Sector Averages		
	Baton Rouge	New Orleans
Classes Where Matches Found	69	45
Number of Civil Service Employees in These Classes	16,089	12,996
Total Amount These Employees Would Have Made in Private Sector	\$325.3 million	\$245.3 million
What They Actually Made in Louisiana Civil Service	\$286.1 million	\$222.9 million
Difference or Cost to Bring These Salaries to Private Sector Market	\$39.2 million	\$22.4 million
Difference as a % of Actual Civil Service Salaries	13.70%	10.06%
What ALL Civil Service Employees Would Have Made in the Private Sector, Based on this Difference	\$1.66 billion	\$1.61 billion
What ALL Civil Service Employees Actually Made in 1993-94	\$1.46 billion	\$1.46 billion
Difference or Cost to Bring ALL Civil Service Salaries to Private Sector Market	\$201 million	\$147 million

Source: Created by legislative auditor's staff from survey data supplied by the Department of Civil Service and William M. Mercer, Incorporated.

Note: Based on differences in the total pay of employees in job classes studied. These extrapolations are based on the only jobs having common descriptions in Louisiana state civil service as well as the New Orleans and Baton Rouge private sectors. Because of this limitation, this sample is not random and projections are therefore not statistically valid.

Salary ranges. In Baton Rouge and New Orleans, respectively, salary ranges averaged 21 and 22 percent higher than those for comparable Louisiana civil service job classifications. Exhibits 2-4 and 2-5 on the following pages show the high and low extremes in the private sector comparisons. These exhibits show that there were only three classes for which the

civil service salary ranges exceeded the Baton Rouge market. Further, there were no classes for which civil service ranges exceeded the New Orleans market. In several cases, business and industry ranges were above civil service ranges by as much as 70 percent. The variation by individual employee and classification indicates that any adjustments need to be made on a case-by-case basis.

Exhibit 2-4
Examples of Baton Rouge Business and Industry Salary Ranges Highest Above
and Furthest Below 1994 Louisiana Civil Service Salary Ranges

Job Classification	Number of Louisiana Employees in Classification	Louisiana Civil Service			Baton Rouge Industry			Midpoint Percent Difference
		Minimum	Midpoint	Maximum	Minimum	Midpoint	Maximum	
Baton Rouge Business and Industry Salary Ranges Above Civil Service Salary Ranges								
Guard	184	\$936	\$1,199	\$1,461	\$1,961	\$2,083	\$2,205	73.81%
Maintenance Superintendent I	47	1,609	2,060	2,511	2,815	3,515	4,213	70.63%
Electrician	96	1,228	1,572	1,916	2,130	2,527	2,925	60.76%
Engineer	6	2,110	2,701	3,292	3,235	4,259	5,282	57.67%
Laborer	515	737	927	1,116	1,220	1,404	1,589	51.55%
Baton Rouge Business and Industry Salary Ranges Below Civil Service Salary Ranges								
Accounting Specialist I	346	1,148	1,470	1,791	1,229	1,448	1,775	(1.48%)
Physical Therapist I	5	2,931	3,828	4,725	2,963	3,559	4,156	(7.02)%
Registered Nurse Program	35	2,561	3,345	4,129	2,342	2,903	3,668	(13.22)%

Source: Prepared by legislative auditor's staff from information supplied by the Department of Civil Service and the "Greater Baton Rouge Society for Human Resource Management 1994 Compensation Survey" provided by William M. Mercer, Incorporated.

Exhibit 2-5
Examples of New Orleans Business and Industry Salary Ranges Highest Above
and Furthest Below 1994 Louisiana Civil Service Salary Ranges

Job Classification	Number of Louisiana Employees in Classification	Louisiana Civil Service Salary Ranges			New Orleans Industry Average Salary Ranges			Midpoint Percent Difference
		Minimum	Midpoint	Maximum	Minimum	Midpoint	Maximum	
New Orleans Business and Industry Salary Ranges Above Civil Service Salary Ranges								
Stock Clerk I	189	\$876	\$1,122	\$1,367	\$1,352	\$1,664	\$1,975	48.37%
Operating Engineer II	96	1,228	1,572	1,916	1,838	2,260	2,682	43.77%
Telephone System Operator I	50	818	1,048	1,277	1,279	1,497	1,715	42.91%
Purchase Agent II	26	1,504	1,926	2,347	2,160	2,704	3,247	40.43%
Information System Application	161	1,971	2,524	3,076	2,792	3,520	4,248	39.49%
New Orleans Business and Industry Salary Ranges Below Civil Service Salary Ranges								
No positions fall into this category	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

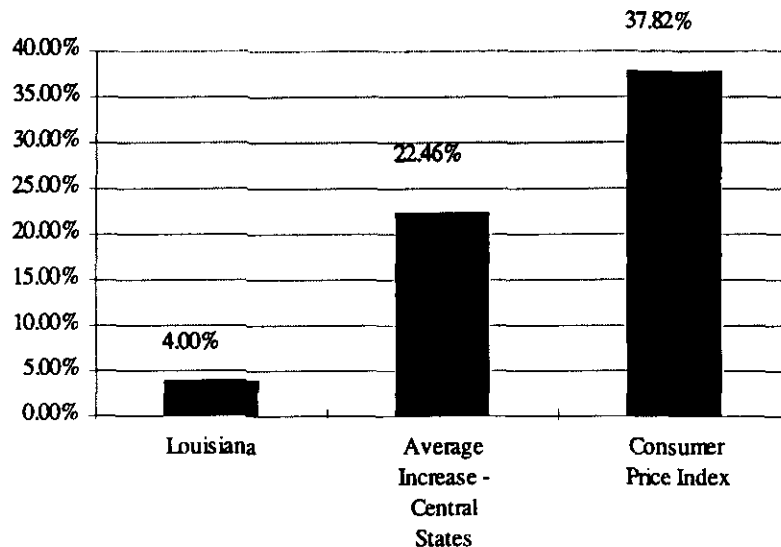
Source: Prepared by legislative auditor's staff from information supplied by the Department of Civil Service and the *Human Resource Management Association, New Orleans Area/New Orleans Compensation and Benefits Association 1994 Wage and Salary Survey* Results provided by William M. Mercer, Incorporated.

Pay Has Not Kept Pace With Inflation

Louisiana has not regularly granted across-the-board pay increases to keep pace with inflation. While the Consumer Price Index (CPI) rose 38 percent from 1985 to 1994, Louisiana granted only one 4 percent increase since 1985. In contrast, some other states tend to make such adjustments more frequently. Eight states for which we have information in a comparable format averaged seven increases from 1985 to 1994. These eight states, including Arkansas, Colorado, Idaho, Kansas, Minnesota, Texas, Utah and Wisconsin, averaged a cumulative 22.5 percent increase from 1985 to 1994, compared with the 4 percent increase for Louisiana.

Exhibit 2-6 shows the cumulative pay range adjustments for Louisiana, the Consumer Price Index, and the average cumulative pay range adjustments for these eight states from 1985 to 1994. Details on salary adjustments for 17 states, including these eight that provided historical percentage adjustments, are contained in Appendix D.

Exhibit 2-6
Salary Range Increases - 1986-1994



Source: Prepared by legislative auditor's staff from 1994 *Central States Salary and Benefit Survey*, U.S. Department of Labor.

**Louisiana
Teachers'
Salaries Are
Below SREB
and National
Average**

Salaries for Louisiana teachers are below the Southern Regional Educational Board (SREB) and national averages. We compared salaries of Louisiana teachers with those of teachers in the SREB states and the nation. Even after adjusting for the differences in the cost of living, salaries for Louisiana's 47,500 teachers are still behind these groups. The 15 SREB states include:

Alabama	<i>Louisiana</i>	South Carolina
Arkansas	Maryland	Tennessee
Florida	Mississippi	Texas
Georgia	North Carolina	Virginia
Kentucky	Oklahoma	West Virginia

SREB Average. The average teacher's salary for the SREB states is over 17 percent higher than the average teacher's salary in Louisiana. Even when adjusted to account for cost-of-living differences, the SREB average is 12 percent higher. Louisiana ranks last among the SREB states in teachers' salaries and second to last when these salaries are adjusted for the cost of living.

In fiscal year 1994-1995, the estimated average salary for Louisiana teachers was \$26,574, according to the SREB. In comparison, the average teacher's salary for the SREB states was \$31,266 (not adjusted for the cost-of-living difference). Exhibit 2-7 on the following page lists the SREB states' average teachers' salaries.

Exhibit 2-7
Southern Regional Educational Board Average Teachers'
Salaries Estimated for Fiscal Year 1994-1995

SREB States	Average Salary	Average Salary Adjusted for the Cost of Living
Alabama	\$31,144	\$33,018
Arkansas	28,409	32,944
Florida	32,588	35,049
Georgia	32,828	32,797
Kentucky	32,257	36,416
Louisiana	26,574	30,322
Maryland	40,636	38,336
Mississippi	26,910	29,509
North Carolina	31,079	33,609
Oklahoma	27,971	32,058
South Carolina	30,341	33,757
Tennessee	31,270	34,717
Texas	31,310	34,680
Virginia	33,753	36,674
West Virginia	31,923	35,714
SREB Average	31,266	33,973
Percent SREB is above Louisiana average	17.66%	12.04%

Source: Prepared by legislative auditor's staff from *Teachers Salary Trends During a Decade of Reform* published by the SREB.

Note: Although salary figures are based on National Education Association estimates for 1994-1995, the cost-of-living adjustment percentages were supplied by the American Federation of Teachers in 1994.

National Average. The average salary for teachers nationwide is 39 percent higher than Louisiana's. When adjusted for the cost of living, the national average is still over 21 percent higher. Nationally, the average salary estimated by the National Education Association for fiscal year 1994-1995 was \$36,933. According to this estimate, Louisiana ranks 49th compared with the 50 states and the District of Columbia.

Adjusting Louisiana teachers' salaries to regional and national norms. Although Louisiana teachers are employees of parish school boards rather than the state, their salaries are partially funded by the state through the Minimum Foundation Program. The state and parish governments would have paid an estimated \$223 million to bring Louisiana's 47,500 teachers' salaries up to the 1994-1995 SREB average. Likewise, if Louisiana teachers were paid at the national level, it would have cost an additional \$492 million in the same fiscal year. These costs are detailed in Exhibit 2-8 below.

**Exhibit 2-8
Potential Cost of Increasing Teachers' Salaries
to SREB and National Averages**

	Louisiana	SREB	National
Average salary	\$26,910	\$31,266	\$36,933
Annual salary costs*	\$1.20 billion	\$1.41 billion	\$1.66 billion
Additional annual cost to bring Louisiana salaries to these averages*		\$223 million	\$492 million

* Based on estimated average salaries for 47,500 Louisiana teachers in fiscal year 1994-1995.

Source: Prepared by legislative auditor's staff from *Teachers Salary Trends During a Decade of Reform* published by the SREB.

Matters for Legislative Consideration

The legislature may wish to consider:

1. Funding pay increases for state civil service employees to bring salaries and salary ranges for state employees into a more competitive position with southeastern states and private industry. Consideration should be given to each individual job classification before any adjustments are made.

2. Funding pay increases for teachers to bring salaries for teachers into a more competitive position with SREB states and nationally. Consideration should be given to years of experience and level of education before adjustments are made.

Matter for Departmental Consideration

1. The state Civil Service Commission should consider adjusting pay ranges to be more competitive with southeastern states and private industry.

Chapter Three: Leave

Chapter Conclusions

Compared with other states, Louisiana's classified employees earn above-average amounts of annual and sick leave. Louisiana is one of only three states that allows employees to carry unlimited amounts of annual leave forward at year-end. Similarly, Louisiana is one of only four states that grants employees increasing amounts of sick leave based on years of service. However, Louisiana is the only state that does not allow employees to use sick leave to attend to an ill family member. Louisiana's generous leave policies may partially compensate for the state's lack of disability insurance.

Louisiana teachers earn slightly less sick and personal leave than other teachers in the nation. Like approximately half of teachers nationwide, Louisiana teachers can accumulate unlimited sick leave.

Louisiana grants its employees 11 paid holidays per year, which is the national average.

Louisiana Grants Higher-Than- Average Leave Accruals and Accumulation

Louisiana's classified employees earn above-average amounts of annual and sick leave. The state grants both annual and sick leave based on an employee's years of service. Tying the amount of annual leave to employees' years of service is common practice for state governments. However, for sick leave, Louisiana is one of only four states that grants all of its employees increasing amounts of sick leave based on their years of service. The leave accrual rates for classified employees are shown in Exhibit 3-1 on the following page.

**Exhibit 3-1
Louisiana's Yearly Accrual Rates**

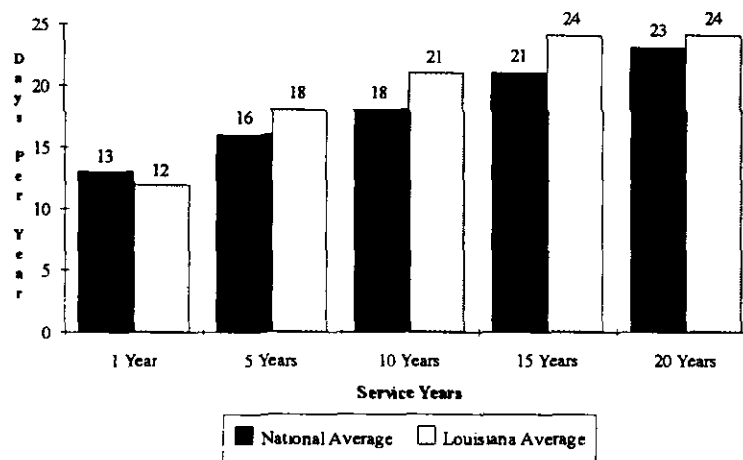
Length of Service	Annual Leave	Sick Leave
Up to 3 Years	12 days	12 days
3 to 5 Years	15 days	15 days
5 to 10 Years	18 days	18 days
10 to 15 Years	21 days	21 days
15 Years and Above	24 days	24 days

Source: Prepared by legislative auditor's staff using information provided by the Department of Civil Service.

Louisiana's Annual Leave Accrual Rates Exceed the National Average for States

The amount of annual leave Louisiana grants its classified employees exceeds national norms. Exhibit 3-2 below compares Louisiana's accrual rates with other states. The only interval where Louisiana does not exceed the national average is during the first year of service.

**Exhibit 3-2
Louisiana's Annual Leave Accrual Rates
Compared With National Average**



Source: Prepared by legislative auditor's staff using information obtained from the 1994 State Employee Benefits Survey published by Workplace Economics, Inc., and from the Department of Civil Service.

Louisiana is one of only three states that allows an *unlimited amount of annual leave to be carried forward into* succeeding years. In the remaining 47 states, annual leave that an employee earns over the maximum accruable amount must be used during the year it is earned.

States that limit annual leave carry-over use one of three methods:

- ♦ Setting a uniform number of days that can be carried over for all employees;
- ♦ Limiting days carried forward to either one, two, or three times the employee's accrual rate; or
- ♦ Tying the limit to the employee's length of service.

Regardless of which method a state uses, the maximum amount of annual leave an employee is allowed to carry over generally falls within the range of 20 and 60 days.

Louisiana's Sick Leave Accrual Rates Exceed the National Average for States

Exhibit 3-3 on the following page illustrates the number of sick leave days that other states grant. Most other states grant employees between 12 and 15 days, with the average number of days being 13.5 per year. To create a basis for comparison, we determined the average number of days Louisiana grants its classified employees. Currently, the state is granting the equivalent of approximately 19 sick leave days per employee per year. Only one other state grants employees 19 or more days of sick leave annually. Further, examining Louisiana's classified employees by accrual category reveals that over 70 percent have been employees for over five years and therefore receive between 18 and 24 days per year.

While Louisiana grants more sick leave days than almost any other state, it is the only state that does not allow employees to use sick leave to attend to an ill family member.

Exhibit 3-3
Louisiana's Sick Leave Accrual Rates
Compared With National Average

Accrual Per Year	Number of States
9 Days	1
10 Days	1
12 Days	17
13 Days	7
14 Days	1
15 Days	14
18 Days	2
<i>19 Days</i>	* Derived Average for Louisiana
<i>21 Days</i>	1
13.5 Days	Weighted Average of Comparison States, Not Including Louisiana

* Four states, including Louisiana, vary sick leave accrual according to the employee's length of service and therefore could not be factored into the average. For two additional states, data were not available.

Source: Prepared by legislative auditor's staff using information obtained from the *1994 State Employee Benefits Survey* published by Workplace Economics, Inc., and from the Department of Civil Service.

Incentives for Not Using Sick Leave. Louisiana, like 38 other states, does not limit the amount of sick leave an employee may accumulate and carry over. However, many other states provide incentives for not using sick leave, including:

- ♦ Crediting unused sick leave towards calculating retirement benefits (Louisiana currently allows this).
- ♦ Applying a portion of the value of unused sick leave towards the cost of life or accident and health insurance.

- ♦ Paying some of the value of unused sick leave to the employee in cash. Recently enacted legislation allows Louisiana school boards to do this for teachers.
- ♦ Paying the cash value of unused sick leave to the employee in the event of disability.
- ♦ Paying the value of unused sick leave to an employee beneficiary in the event of death.

Reducing Leave Accruals Could Cause Problems in Other Areas

Before the state considers reducing sick and annual leave accruals, some implications of doing so should also be considered. First, the generous leave policies may have been designed to compensate for the lack of disability insurance. Also, agency schedules and staffing policies may cause problems for employees who are forced to "use or lose" leave.

Leave May Substitute for Disability Insurance. Other states may have lower leave accrual rates, but many also provide disability insurance, which replaces part of an employee's salary if he or she is unable to work. Twenty-two percent of state and local government employees nationwide have short-term disability insurance and 28 percent have long-term disability insurance. Louisiana does not contribute toward traditional disability insurance for its employees.

Some long-service employees in Louisiana have a disability retirement provision through the retirement systems. However, many state employees have not accumulated enough years of service to be eligible for disability retirement should they become disabled. Approximately 57 percent of LASERS members and 27 percent of TRSLA members were not eligible for the disability retirement benefit as of June 30, 1994. Accumulated leave may be the only protection these employees have in the event of catastrophic illness or disability. Further, Louisiana is one of six states that does not pay Social Security; therefore, many state employees would not be eligible for Social Security disability benefits.

Scheduling Leave May Be Difficult. If the state limits leave accrual, its agencies and departments should consider and modify any scheduling and staffing policies that could create conflicts. For example, most state employers compensate overtime hours worked as compensatory time earned instead of cash payment. Departments may require employees to use accumulated compensatory time before using annual leave. Therefore, an employee might have difficulty scheduling all his or her compensatory leave in addition to annual leave. In particular, 24-hour facilities or departments with critical staffing shortages may have difficulty in scheduling employees if state policy forced all employees to "use or lose" leave.

**Louisiana
Cannot Know
True Cost of
Granting
Above-Average
Leave**

The Department of Civil Service does not have reliable data on annual or sick leave usage. As a result, we were not able to determine if or to what extent Louisiana's above-average accrual rates result in excessive usage of leave by its employees. We were also unable to project the actual cost savings, if any, which might result from adjustments to leave accrual and usage policies. Therefore, we based our annual and sick leave cost calculations on earned rather than used leave. Although our calculations do not represent the amount the state is actually spending on leave each year, they do indicate the potential liability to the state if employees were to use all the leave granted to them in a year. The actual cost may be less because an employee may not use or receive payment for all accrued leave.

Tangible savings may not occur simply by reducing leave accrual rates. However, if Louisiana's classified employees have excessive leave usage, then lowering leave accrual may reduce absenteeism. If employees are at work more often, the state might be able to reduce the size of its workforce and thus achieve savings.

**Louisiana Grants 106,500 Days of Annual Leave
Above National Norms Per Year**

Louisiana is currently granting approximately 106,500 days of annual leave per year above the national norm for classified employees with one to 25 years of service. The value of this excess leave is \$9.9 million. Because some employees may not actually use all of their annual leave, the cost incurred by the state may be less than this amount.

When classified employees terminate state service because of separation, resignation, or retirement, they receive a cash payment for up to 300 hours of annual leave at their current hourly rate of pay. If an employee is eligible for retirement, he or she can convert the remaining annual leave into retirement credit or receive an actuarially reduced lump-sum payment. (The cost associated with applying leave towards retirement system credit is discussed further in Chapter Five.) Classified employees who leave service without retiring lose annual leave over 300 hours. The state does not incur a cost for the leave that is lost.

Louisiana Grants 300,000 Days of Sick Leave Days Above National Norms Per Year

Louisiana is currently granting approximately 300,000 sick leave days above the national norm for sick leave for all classified employees per year. The value of this leave is \$30.4 million. We calculated this value using a norm of 15 days, which 14 other states grant, rather than 13.5 as shown in Exhibit 3-3 on page 30 to be conservative in formulating this estimate. The conservative approach is warranted because Louisiana government employees have no social security or employer-provided long-term disability insurance like employees of many other states. Therefore, they use sick leave as a substitute.

Particularly in the case of sick leave, the state may not be actually incurring a cost equal to the dollar value of this excess leave. Large sums of sick leave may go unused because sick leave is only taken in the event of personal illness or injury. Further, civil service rules prohibit employees from being paid for any unused sick leave upon separation; consequently, the state never incurs a cost for some sick leave. At retirement, an employee may also convert unused sick leave into service credit, subject to the rules of his or her retirement system.

**Louisiana
Grants
Average
Number of
State Holidays**

Louisiana grants its employees 11 paid holidays per year. According to the *1994 Workplace Economics Survey*, the average number of paid holidays granted to state employees nationwide is 11 days. Election days, which do not occur each year, and holidays granted only to employees in a specific location, such as Inauguration Day in Baton Rouge, are not included in this average. The greatest number of paid holidays granted by any state is 14, the least is 9.

The state observes eight legal holidays: New Year's Day, Mardi Gras Day, Good Friday, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, and Christmas Day. In addition to the eight legal holidays, the governor may proclaim two other holidays each year plus Acadian Day (the day after Thanksgiving). The eight legal days with the two days proclaimed by the governor plus Acadian Day yield 11 holidays for state employees in Louisiana, not including Election Day.

**Louisiana
Teachers Earn
Less Leave
Than Others,
But Can
Accumulate It**

Louisiana teachers earn a minimum of 10 days sick leave per year, compared with an average of 12 days nationwide. State law requires that all Louisiana school boards provide teachers at least 10 days of sick leave per year. This sick leave can be accumulated. Of the 16 Louisiana school boards we surveyed, all provide the minimum number of days required by state law. These 16 boards represent 24 percent of the total.

Teachers do not earn annual leave, but instead earn personal leave to cover absences because of circumstances other than illness. Fifteen of the 16 school boards we surveyed provide teachers two personal days per year, with one providing three personal days per year. In addition, state law allows Louisiana teachers to use at least two days of sick leave per year for personal needs. Nationwide, teachers receive an average of four personal days per year. Thirty-two percent of school systems nationwide charge personal leave to sick leave. Eight percent are similar to Louisiana and charge some personal leave to sick leave. The rest generally provide personal leave separate from sick leave.

State law allows Louisiana teachers to accumulate unlimited sick leave, as do approximately half the school systems nationwide. In Louisiana, sick leave can be applied to retirement credit only if it was earned before June 30, 1990 (see Chapter Five). Thirty-five percent of school systems nationwide allow partial or full credit of accumulated sick leave toward retirement service credit.

Matter for Legislative Consideration

The legislature may wish to consider:

1. Amending LSA-R.S. 17:1201 to increase the minimum number of sick days provided to Louisiana teachers.

Recommendations

The Civil Service Commission should consider the following amendments to leave policies:

1. Adjust leave accruals to be more consistent with the national averages. However, this should only be done in conjunction with the state instituting an adequate disability policy for all employees. This would include allowing a set number of sick leave days per year regardless of an employee's length of service.
2. Limit the amount of annual leave that an employee can accumulate.
3. Allow sick leave to be used to care for ill family members.
4. Explore the feasibility of implementing incentives to keep sick leave usage down.
5. Institute a tracking system for leave usage.

All Louisiana school boards should consider the following amendment to leave policies:

1. Grant additional days of leave to teachers for sick and personal leave.

Chapter Four: Medical and Other Group Insurance

Chapter Conclusions

Louisiana state employees and retirees pay a higher percentage of medical insurance premiums, particularly for single coverage, than other government employees nationwide and the local private sector. Nevertheless, the total premiums collected from the state and its employees are still insufficient to cover all claims and expenses. Bringing the state into a competitive position for medical insurance would be costly and would require a change in state law. The program's best savings opportunity is to negotiate lower providers' fees, but state law limits SEGBP's ability to do so.

SEGBP's claims and expenses exceed total indemnity plan premiums. Allocating claims to the month they were incurred would help management determine income requirements to cover these claims.

SECURE's Phase I Performance Audit of Personnel and Benefits found that the SEGBP's group life insurance program is uncompetitive in cost and benefit provisions. The benefit design results in a higher cost to the state because younger employees can purchase age-rated coverage at a lower cost outside SEGBP's program.

Further, the cost of SEGBP's life insurance has been consistently inflated. Each year, there are excess payments into the life insurance program that are used to subsidize the medical program. This subsidy disguises the true cost of the medical and life insurance programs. Even if the state redesigned this benefit to provide adequate coverage to employees and sound underwriting, the current bid requirements for future contracts may prohibit competitive bidding.

Background

SEGBP offers two options for health insurance to state employees: several HMOs and an indemnity plan structured with a PPO. SEGBP designs, pays claims, and collects premiums for the PPO plan, but merely negotiates contracts and collects premiums for the HMOs. Employees compare premiums and benefits, then select the option that best suits their needs. The employer, usually the state or a local school board, pays a portion of the premium cost for the coverage selected, while the employee pays the rest.

Milliman and Robertson (M&R) was asked to determine if benefits in these plans are competitive, the plan is cost-effective, and rates are reasonable. They found that SEGBP's indemnity plan has most of the significant benefits usually included in benefit plans and does not include any unusual or overly generous benefits that should be eliminated. However, they suggest including a well child examination for children aged 8 through 15, which might cost the plan only \$120,000 per year (see Appendix M).

State's Share of Medical Insurance at or Near Bottom

Louisiana ranks at or near the bottom compared with other states and the local private sector in the percentage of employee health insurance premium it pays. However, increasing this percentage to cover a higher portion of the premium would be expensive, particularly if program participation increases from its current low levels.

The state can pay a higher percentage only if an existing law is changed. LSA-R.S. 42:851(C) prohibits the state from paying more than 50 percent of the medical insurance premiums for active employees and retirees. Increasing the percentage paid by the state would require a change in the law.

Compared with other state governments in percentage of health insurance paid, Louisiana is:

- ◆ Last in the nation for active employees who elect to cover only themselves with medical insurance (single coverage),
- ◆ Forty-sixth for family health coverage for active employees,

- ◆ Thirty-second for single coverage for retirees who are covered by Medicare, and
- ◆ Twenty-fifth for family coverage for retirees who are covered by Medicare.

Eight states pay the entire premium for active single and family coverage. Sixteen additional states (or state plans) pay the entire premium for active single coverage; eight of these also pay the same dollar amount toward family coverage.

For retirees with Medicare, Louisiana ranks near the middle when compared with all states. However, 14 states do not pay any of the premium. The average contribution for states that do share part of the premium for retirees with Medicare and retiree/spouse coverage with Medicare is 89 percent and 74 percent, respectively.

For retirees without Medicare, we were unable to find statistics to make comparisons with other state governments. State law provides that retirees without Medicare coverage shall not pay more than the premium charged to active participants. However, their insurance costs more. Since the state must make up the difference, its contributions are nearly four times higher for this group than the others. Approximately 10,000 of Louisiana's 27,000 retirees (37 percent) do not participate in Medicare.

Exhibit 4-1 on the following page shows the state's rank and percentage of premium paid compared with other states for each type of coverage.

Exhibit 4-1
Louisiana's Employer Contribution to Medical Premiums
Compared With Other States

Coverage Type	Percent Paid by Louisiana	Average Percent Paid By State Governments	Louisiana Rank vs. All State Governments
Active Single	45%	90%	50
Active Family	47%	74%	46
Retiree (Medicare)	40%	89%*	32
Retiree and Spouse (Medicare)	45%	74%*	25
Retiree (No Medicare)	75%	N/A	N/A
Retiree and Spouse (No Medicare)	77%	N/A	N/A

The numbers marked by an asterisk (*) are weighted averages calculated by legislative auditor's staff from this database.

Source: Prepared by legislative auditor's staff from *State Employees Group Benefits Program, Comparison to Other State Health Care Plans, 1994, The Segal Company.*

Compared with 11 major Louisiana private sector employers in percentage of health insurance paid, Louisiana is:

- ◆ Last for active employees with single coverage,
- ◆ Ninth for family health coverage for active employees (however, the three employers who paid less than the state paid 100 percent of the premium for single coverage), and
- ◆ Behind six out of nine respondents for all coverages for retirees who are covered by Medicare (the others do not pay any portion of the premium).

Five of the 11 private-sector employers paid 100 percent for active single coverage. Many private sector employers also provided the same dollar amount toward active dependent or family coverages. For retirees not on Medicare, five of the nine companies that responded to the retiree question contributed at approximately the same rate as the state.

Relatively High Premiums for Single Coverage May Be Subsidizing Family and Dependent Coverages

Employees electing single coverage not only pay a high percentage of their health insurance costs, but they also pay more than considered normal when compared with dependent and family coverages. Therefore, employees electing single coverage may be subsidizing other coverage types.

Based on M&R's healthcare cost experience with other plans around the country, premiums for single coverage should be a certain percentage of dependent and family coverage. Louisiana's premiums for single coverage exceed that percentage, as shown in Exhibit 4-2. After the 1995 rate changes, the subsidy is slightly less because rates for other coverages rose more than for single coverage. These cost relationships suggest that SEGBP is charging higher rates for single coverage and using the difference to offset dependent-plus-one and family coverages.

Exhibit 4-2
1995 Single Coverage Premiums as a Percent
of Other Coverage Premiums*

Coverage Category	SEGBP Single Coverage Premiums	M&R Expected Single Coverage Premiums
Participant + One Dependent	59.17%	49.26%
Family Coverage	48.54%	42.19%

* Although M&R factored plan participants' average age and gender distribution into these expectations, they did not analyze SEGBP's actual costs in each coverage type.

Source: Calculated by legislative auditor's staff from M&R Report titled *Competitiveness of Premium Rates and Benefits*, page 9.

Because the level of employer contributions is low and premiums are high for certain coverages, state employees may be discouraged from participating in the program. We estimate that approximately 59 percent of eligible active LASERS and TRSLA members participate in SEGBP's medical plan or contracted HMOs. In comparison, approximately 94 percent of eligible active employees participate in the medical insurance programs of the 11 Louisiana private sector employers we surveyed. We have no comparable data for other state governments.

Increasing the State's Share Would Be Expensive

If the state paid a greater share, more employees might participate in the health insurance program. However, paying a higher percentage of active employee medical insurance premiums would be expensive for Louisiana. Further, an increase in the percentage the state pays toward premiums might encourage additional employees to join the program, resulting in even greater expense. Exhibit 4-3 on the following page projects what these costs might be for active members in the indemnity plan under different hypothetical scenarios. Costs under additional scenarios are contained in the M&R Report on *Competitiveness of Premium Rates and Benefits* (Appendix M). If HMOs and retiree insurance premiums were considered, the costs would be even greater. For instance, if the state were to absorb all the costs for single coverage, its HMO premium costs would increase by 39 percent, or \$18 million. If the state simply increased its cost share to 60 percent for all categories of HMO coverage, its HMO premium costs would rise by 37 percent, or \$17 million.

Exhibit 4-3
Costs to Increase State's Share of Active-Only 1995
Premiums in the Indemnity Plan Under Different Scenarios

What State Would Pay Toward Active Coverage Scenario	If There Is No Change in Enrollment		If There Is A 25% Increase in Enrollment	
	Dollar Change in State Cost	Percent Change in State Cost	Dollar Change in State Cost	Percent Change in State Cost
100% of Single-Only, pay same <i>dollar amount</i> toward other coverages	\$26,471,676	37%	\$51,021,480	71%
100% of Single-Only, leave dependent cost-sharing at current level	\$20,547,540	29%	\$43,616,316	61%
Increase cost-sharing so that Louisiana ranks 25th among states in percent of premiums for <i>all</i> coverages	\$54,621,804	76%	\$86,208,852	120%

Does not include retiree health insurance premiums or HMOs.

Source: M&R report on Competitiveness of Premium Rates and Benefits,
pp. 10-11, and Exhibit B, Scenarios 2, 3, and 7.

**Shifting Costs
to Providers
and Non-PPO
Participants
Would Produce
Savings**

According to M&R, the cost structure of the medical plan is well designed because SEGBP's costs for preferred provider and non-preferred provider services differ by little. This means the employee, not the state, absorbs most of the additional costs of going outside the preferred provider network. Nevertheless, the program could potentially reduce costs in two ways. One, which was suggested by SECURE, is to shift costs to employees by increasing participants' deductibles and out-of-pocket maximums and by lowering co-insurance reimbursements. However, participants' costs are already high. The second is to negotiate lower physicians' fees, but state law limits SEGBP's ability to do so.

Increasing Deductibles and Out-of-Pocket Maximums Would Further Burden Employees

SEGBP may lower medical program costs by increasing deductibles and out-of-pocket maximums and by lowering co-insurance reimbursements. However, among state governments, Louisiana's indemnity program had the fourth highest deductibles in the nation in 1994. The state ranked near the middle in co-insurance and out-of-pocket maximums.

In contrast to state governments, the 11 private sector employers we surveyed typically had higher out-of-pocket maximums than the state. On the other hand, they paid a greater share of premiums. We did not make further comparisons because the data we have are incomplete.

Alternative to Cost-Shifting to Employees. In our preliminary report issued in February 1995, we recommended that SEGBP could decrease costs by lowering the non-preferred provider co-insurance below the 70 percent level then in force. This means that the plan reimbursed members at 70 percent of the maximum fee schedule when they chose to use a provider who was not in the preferred provider network. In the same month, SEGBP's Board of Trustees voted to lower the non-preferred provider co-insurance reimbursement to 50 percent. SEGBP projects this change will save \$9.5 million in fiscal year 1995-1996. The board also increased SEGBP's non-preferred provider out-of-pocket maximum from \$1,800 to \$2,800.

Shifting Costs to Providers Would Produce Savings, But SEGBP Is Restricted in Its Ability to Do So

SEGBP could reduce costs by shifting them to providers through negotiating greater discounts with PPO physicians. However, state law currently limits SEGBP's ability to do so.

Changing two statutes would give SEGBP more flexibility to generate even greater cost savings in its PPO. LSA-R.S. 42:851.5 requires SEGBP to adopt the schedule of maximum fees for medical services, which must be limited to "usual and customary" charges. According to SEGBP staff, this law limits SEGBP's ability to use capitation agreements. Under a capitation

agreement, providers receive a fixed amount per person independent of the actual services patients receive. Capitation agreements provide an incentive to providers to limit services, which shift the health care risk from SEGBP to the provider.

LSA-R.S. 40:2202 prohibits the signing of exclusive contracts with preferred providers. The law requires that no licensed provider, other than hospitals, be excluded from becoming a preferred provider. This limits SEGBP's ability to negotiate lower preferred providers' fees. According to SEGBP staff, exclusive contracts would allow SEGBP to negotiate deeper discounts with preferred providers by guaranteeing more patients per provider.

**SEGBP's
Premium
Income
Inadequate to
Pay Claims**

The indemnity plan's claims and expenses have generally exceeded its total premiums. M&R estimated that claims and expenses in SEGBP's indemnity plan would exceed its premiums by \$32.5 million on an incurral basis and \$40.4 million on a cash basis in fiscal year 1995. M&R's estimate is based on assigning all claims to the month in which the covered services were performed, or incurred. Other revenues including interest earnings, HMO administrative fees, and excess life insurance premiums are not included in these estimates. The numbers also reflect a 10 percent increase in claims costs over fiscal year 1994. If other revenues available to SEGBP are considered in M&R's calculations, these amounts become \$25.6 million on an incurral basis and \$33.6 million on a cash basis.

Currently, it is difficult for SEGBP to project its premium needs because they have not allocated claims to the month in which the claims were incurred. M&R recommends SEGBP maintain a complete claims experience report showing all paid claims through all incurral months. Currently, SEGBP reports experience on a "paid" basis. M&R recommends using an incurred basis because claims are matched to the number of participants generating them in a given month. M&R's report on this subject is presented in this study as Appendix N.

SEGBP's Board of Trustees recommended and received a 10 percent increase in rates to generate approximately \$24.6 million in fiscal year 1996. Additional rate relief might come from the maintenance of complete incurral data, which would allow better forecasting of rates adequate to finance the program.

Group Life Insurance Uncompetitive

In addition to health benefits, the state offers a group life insurance policy through SEGBP. The policy's premiums are inflated. Further, it attracts an older group of participants than one might expect, which drives up its costs. Because the policy duration is limited, few insurance carriers may be willing to bid on replacing it.

The program offers a basic death benefit of \$5,000. The supplemental program allows additional insurance up to a maximum of \$40,000, as well as dependent coverage. Employees who choose to participate must pay 50 percent of the SEGBP basic and supplemental stated premium cost and 100 percent for dependent coverage. In contrast, most state governments and private employers pay the full cost of basic life insurance coverage, as shown in Appendix J.

Group Life Attracts Mostly Older Employees

Younger employees are able to purchase age-rated coverage outside SEGBP for a lower out-of-pocket cost even without the state contribution. The result has been a gradual erosion of the program's risk base and an increase in the average age of all participants to 53. The average age of active LASERS and TRSLA members, who comprise approximately 83 percent of all active SEGBP life insurance participants, is 42.

The age of the population increases the cost of SEGBP's life insurance program. SEGBP charges \$.88 per thousand dollars of coverage, which is nearly three times higher than the average of \$.32 reported by 32 states in a study by Workplace Economics, Inc. Forty-four state governments pay the full cost of basic life insurance coverage, while employees in SEGBP pay half the stated premium cost. If the full cost for a basic level of life insurance was paid by the state, younger employees would join the program, which would decrease premium rates.

SEGBP Consistently Inflates Life Insurance Premiums

Premiums charged by SEGBP to life insurance participants have historically exceeded premiums paid to the carrier. SEGBP currently charges participants \$.88 per thousand of coverage. However, SEGBP remits only \$.71 per thousand to the carrier, resulting in excess charges of \$.17, or 24 percent. The remainder is being used to subsidize the medical plan. When this excess is factored in, employees actually pay 62 percent, not half, for their life insurance coverage. LSA-R.S. 42:821 allows the employer to pay up to 50 percent for this coverage.

The plan's actuaries stated in 1993 that this subsidy historically represented between \$8 and \$10 million per year, or approximately 6 to 8 percent of SEGBP's total income. Because of increases in the premium rates charged by the carrier and a rate reduction for plan members implemented by the SEGBP Board in 1986, the actuaries projected a reduction by 1996 to approximately \$2 million per year. Though it has decreased, the subsidy still disguises the true costs of the medical and life insurance programs.

Two-Year Limit on Insurance Procurement Discourages Other Insurers From Bidding

Making the statutorily required contract period longer than the current two-year limit would likely result in a more favorable rate structure. This is because it takes an insurance carrier at least three years to amortize the acquisition costs for a life insurance contract. So that they may amortize these costs, carriers may charge higher premiums and increase premiums frequently if they are at risk of losing a contract after two years. Changing the maximum period to at least three years, preferably five, would make the contract more attractive for other carriers to bid.

The current contract holder, Continental Assurance Company (CNA), has held the contract since 1973. During this period, SEGBP has not placed the contract out for bid. With the exception of an increase in basic coverage from \$2,000 to \$5,000 in 1991, provisions have remained basically unchanged.

LSA-R.S. 42:821(4)(b) requires that all future SEGBP insurance contracts be for no longer than two years. According to experts from Life Insurance Marketing and Research Council (LIMRA) and the American Council of Life Insurance (ACLI), this period is not adequate. Although no firm guidelines for contract length exist, industry experts we interviewed advise that employers contract with a carrier for a minimum of three years, but preferably five years. Not only are rates likely to be lower, but frequent carrier changes may also result in benefit inconsistency, changes in enrollment and data systems, and disruptions in administrative services.

Matters for Legislative Consideration

The legislature may wish to consider:

1. Funding a larger portion of the cost of SEGBP's medical insurance premiums.
2. Modifying LSA-R.S. 42:851, which limits the state's contributions and that requires retirees' share of premiums not to exceed the premium paid by active indemnity plan members for similar coverage.
3. Modifying LSA-R.S. 40:2202 and 42:851.5, which limit SEGBP's ability to negotiate lower preferred provider fees.
4. Amending LSA-R.S. 42:821 to increase the maximum term for insurance contracts.
5. Funding a basic level of life insurance for all employees. This could be studied in conjunction with restructuring survivor benefits for new employees under the retirement systems.

Recommendations to Agency

1. SEGBP and the Board of Trustees should ensure that the medical program has an adequate cost structure to cover expenses, including incurred but unpaid claims.
2. SEGBP should perform claims analyses and two-year *financial projections on a regular basis for the purposes of rate-setting, budgeting and planning.*
3. SEGBP should negotiate deeper discounts with preferred providers.
4. SEGBP, if state law is modified, should consider the use of capitation agreements for its PPO.
5. SEGBP should set life insurance premiums approximately equal to what SEGBP pays to the carrier or to actual claims and administrative cost if self-insured.
6. SEGBP should modify the existing life insurance contract, rebid the contract, or self-insure life insurance benefits. Supplemental coverage offered under any new benefit should be age rated.
7. SEGBP should consider providing a well child examination for children aged 8 through 15.

Chapter Five: Retirement Benefit Issues

Chapter Conclusions

LASERS and TRSLA have a combined unfunded accrued liability (UAL) of \$6.285 billion as of June 30, 1994. UAL amortization for the LASERS and TRSLA debt is about \$235 million from the general fund for fiscal year 1994-1995. Although the state is now on a legislatively mandated amortization schedule, the UAL might be paid out more quickly and with reduced interest payments under other payment plans.

The law is not clear whether the benefits of current retirement system members can be changed. Because modifications to benefits for current retirement system members would very likely result in costly litigation for the state, changes should be considered for new entrants only. A proposed revised retirement plan for new LASERS and TRSLA entrants could save \$53 million annually by fiscal year 2003-2004. The plan would be based on the current retirement plan, with changes in a few key provisions:

- ♦ **Normal retirement at age 65**
- ♦ **Reduced benefits for early retirement**
- ♦ **Minimum early retirement age**
- ♦ **Final average salary (FAS) of five years**

Another benefit change that would produce savings is to limit or eliminate the amount of unused sick and annual leave credit convertible at retirement. If the conversion of future sick and annual leave were capped at one year, the state could save approximately \$3.6 million in the first year, all of it in LASERS. TRSLA has such a cap. If all future conversion of sick and annual leave credit were eliminated for LASERS and TRSLA, the state could save approximately \$33.3 million in the first year.

The legislative actuary also studied three other changes proposed in the SECURE Phase I report:

- ♦ The state would save almost \$10.5 million in the first year for a revised death benefit for current LASERS and TRSLA members, but it would spend over \$11 million for an improved disability program for the same group.
- ♦ An automatic cost-of-living adjustment for LASERS and TRSLA members based on a variant of the Consumer Price Index would cost about \$198 million in the first year and over \$5.4 billion over an 11-year period.
- ♦ Because no reliable experience measurements are available, the state cannot know the extent of its liability for the Deferred Retirement Option Plan (DROP). Because the program is so new and also unique to Louisiana, it is difficult to measure actuarially. However, there are several factors that can control the cost of this program.

Finally, complete and timely descriptions of the potential cost of proposed retirement legislation are essential. These cost studies can help legislators consider retirement legislation in terms of whether the state can afford it.

Background

Louisiana pays large sums annually toward retirement system benefits and debt. The state's general fund provided about \$400 million toward LASERS and TRSLA in fiscal year 1994-1995.

The retirement systems are funded partially by the members and partially by the governmental entity that employs them. The member's contribution equals a percentage of his or her salary that is fixed by statute. The employer's contribution varies each year, depending on what the retirement systems cost for that year. Two components are included in this cost: the normal cost and debt amortization. The normal cost is the cost

of retirement benefits for one year. All of the member's contribution goes toward it. The employer's contribution includes what is left of the normal cost plus all the cost of amortizing the system's debt, known as the unfunded accrued liability (UAL).

The UAL is the shortfall in the amount of money the retirement systems should have on hand so that, together with the investment income expected to be earned on that amount, they will have enough to pay benefits their members have earned. Put another way, it is a retirement system's accrued liabilities minus its actuarial assets. The UAL as of June 30, 1994, for LASERS and TRSLA, the two largest underfunded state retirement systems, is shown below.

Exhibit 5-1			
Unfunded Accrued Liability in the State's Two Largest Retirement Systems as of June 30, 1994			
		LASERS	TRSLA
1	Accrued Liabilities	\$5,403,394,552	\$9,928,474,127
2	Actuarial Assets	\$3,347,602,209	\$5,699,644,766
3	UAL (1 - 2)	\$2,055,792,343	\$4,228,829,361
4	Funded Ratio (2/1)	61.95%	57.41%

Source: Prepared by legislative auditor's staff from data supplied by the legislative actuary.

The state's constitution requires that employer contributions to the retirement systems, including the normal cost and the UAL amortization, not fall below a certain percentage of payroll. That way, a certain level of funding toward this debt is guaranteed. Since nearly 70 percent of the employer contributions used to fund LASERS and TRSLA comes from the general fund, any change in the employer contribution rate has a direct and substantial effect on the state's budget. There are three ways the state can impact the employer contribution rates:

- ♦ choosing the optimal UAL payment option;
- ♦ enacting benefit reforms that save costs while providing equitable benefits; and
- ♦ ensuring sound monitoring of proposed retirement legislation.

Current UAL employer contribution requirements and the types of employers that contribute to the systems are further explained in Appendix E.

UAL Payment Schedules. The UAL is now on a constitutionally mandated payment schedule, which has evolved over the past decade. The state addressed the question of this massive debt in three stages:

- ♦ *Ad hoc funding prior to 1988.* Until the passage of Act 81 of the 1988 Regular Session, systems were funded on a non-actuarial basis. Simply put, whatever money was available at the time was used to fund the systems. The funding supplied was not adequate to cover accrued liabilities.
- ♦ *Constitutional provision of 1987 [Article 10, Sec. 29 E(2)].* This mandated that the UALs established as of June 30, 1988 be actuarially funded by the year 2029. Act 81 of 1988 was the enabling legislation that set forth the amortization schedule to accomplish this funding.
- ♦ *Act 257 of the 1992 Regular Session.* The Act 257 amortization schedule superseded the Act 81 schedule. The new schedule has lower payments in the early years of the schedule and higher payments at the end.

Important features of the Act 81 and Act 257 schedules are further explained and compared in Appendix F.

Other Payment Options Exist for UAL

Several other options are available to the state for modifying the amortization of the UAL. Whether any option is advantageous depends on several variables, including the state's financial situation and available interest rates. Periodic evaluations of available payment options would help determine the benefit of changing the state's UAL payment method at any given time. A few UAL payment options include:

Percentage of Payroll. The state could adopt a schedule requiring annual employer contributions to be equal to a stated percentage of payroll. One advantage of this type of schedule is that each generation of taxpayers pays the same proportion of state payroll. A disadvantage is the variability in payments caused by payroll fluctuations. In periods of high payroll growth, payments would be higher; in periods of low payroll growth, payments would be lower.

Pension Obligation Bonds (POBs). These are bonds the state would issue at an interest rate lower than the valuation interest rate the actuaries assume the system will earn. The difference between the bond rate the state pays and the valuation interest rate would represent a savings to the state in interest payments. This option is viable only when available interest rates are lower than the actuarial valuation rate.

Shorter Amortization Period. Shortening the amortization period by five years would result in interest payment savings of \$1.283 billion for LASERS and \$2.621 billion for TRSLA, based on current actuarial assumptions. Although debt would be paid more quickly, shorter amortization periods mean larger annual payments.

New Increase Factor. The current amortization schedule requires that principal payments increase annually by a specified percentage. A change in the rate of increase to require higher payments at the early part of the schedule would result in larger payments initially and interest savings eventually.

Additional Payments to Principal. In the spring of 1994, Texaco and the State of Louisiana reached a settlement concerning disputed payments of oil and gas revenues for production on state property. About \$205 million of this money is being applied directly to the UAL of the state's three underfunded retirement systems as additional payments. Consequently, the legislative actuary estimates that Louisiana is saving \$2.5 billion in interest payments over the remaining 35-year amortization period and is retiring the debt two years earlier than originally projected. Although such windfall payments aid greatly in reducing the UAL, this source is not predictable. The effect of the application of the Texaco payments is explained in Appendix G.

**State May Not
Be Able to
Change
Benefits for
Current
Employees**

State law is not clear regarding whether the benefits of current retirement system members can legally be changed. Consequently, modifications to benefits for current retirement system members could result in costly litigation.

Article 10 of the Louisiana Constitution provides for the establishment of LASERS and TRSLA. The article states that the accrued benefits of members of any state or statewide public retirement system shall not be diminished or impaired. Future benefit provisions for members of the state and statewide public retirement systems shall only be altered by legislative enactment.

The term "accrued benefits" is not defined in Louisiana law. The article also states that the legislature may alter benefits to ensure the systems' actuarial integrity, even though employees may be adversely affected. Again, neither the article nor state law clearly define what benefits may be altered and to whom the changes could apply.

Further, the article states that a contractual relationship exists between the state of Louisiana and retirement system members. Federal and state constitutions prohibit the impairment of contracts. These "contract clause" prohibitions could be interpreted to mean that current or future benefits cannot be eliminated or reduced for any system members, including those who are not vested.

The legislative auditor's general counsel has opined that because so much is not defined and a reasonable argument can be made on either side, there is no definitive answer whether retirement benefits may be constitutionally altered, reduced, or eliminated. To avoid potentially costly litigation, the state should consider making the benefit changes studied in this report for new employees only.

**Revised
Retirement
Plan for New
Entrants
Would Produce
Future Savings**

A revised retirement plan for new state employees could save as much as \$53 million annually by fiscal year 2003-2004. We evaluated a standard plan, which would apply to all new members entering LASERS and TRSLA systems. Contribution rates would be standardized for all members (7.5 percent) as would accrual rates (2.5 percent).

The plan would be a defined benefit (DB) plan like the existing plan, with a few key alterations. A DB plan offers retirement benefits based on a member's final pay and total service.

The revised DB plan for new entrants only includes altered benefit structures in certain key areas, including:

- ♦ Normal retirement at age 65
- ♦ Reduced benefits for early retirement
- ♦ Minimum early retirement age
- ♦ Final average salary (FAS) of five years (60 months)

A complete description of the revised benefits is in Appendix H. A description of current benefit structures is in Appendix I.

Normal Retirement Age. Unlike most other pension plans, LASERS and TRSLA currently lack a normal retirement age and a minimum early retirement age. The normal retirement age is the earliest age at which a member can retire without an economic penalty, which takes the form of an actuarial or annual percentage reduction. The reduction is designed to reflect the fact that a younger person will live longer; therefore, his or her benefits will be paid for a longer period of time. An early retirement provision sets the minimum age at which a member can retire and obtain a pension, even though it may be actuarially reduced.

Current Social Security provisions allow normal retirement at age 65, but this will increase to age 67 by the year 2022. Under Social Security, 62 is the minimum early retirement age. At the state level, a 1994 report issued by the Wisconsin Retirement Research Committee shows that nine systems are restricted to the age 65 normal retirement now found under Social Security.

In contrast, LASERS and TRSLA do not have a normal retirement age. Both systems allow retirement with full benefits as follows:

- ♦ age 55 with 25 years of service
- ♦ any age with 30 years of service

In addition, TRSLA allows retirement at age 65 with 20 years of service. TRSLA also allows for retirement at any age with 20 years of service or age 60 with 10 years of service, with a reduced benefit calculated using a reduced accrual rate. LASERS allows retirement at age 60 with 10 years of service at the regular rate.

Legislation passed in 1995 allows LASERS members to retire with 20 years of service at any age; however, benefits would be actuarially reduced from the date the member first becomes eligible. System benefits are more fully explained in Appendix I.

Early Retirement. Under the revised plan for Louisiana, the state would set the normal retirement age at 65 and the minimum early retirement age at 55. Setting the early retirement age at 10 years before the normal retirement age is a standard practice in pension plan design. At this point, most actuarial reductions would result in less than half the normal accrued benefit under any actuarially reduced scale. The two principal methods for reducing benefits for early retirement are:

- ♦ *Annual percentage reduction of the normal retirement benefit.* Social Security uses a percentage reduction for early retirement. According to the Wisconsin report, 64 percent of the state plans surveyed also employ this method to reduce benefits for those who retire early.
- ♦ *Actuarial reduction, which is an age-related benefit reduction, calculated according to an actuarial mortality table.* Under this method, the benefit is based on the expected future lifetime of the member and the expected return on plan investments. According to the Wisconsin report, 20 percent of the state plans surveyed employ this method.

The revised plan would employ the annual percentage reduction method. The benefit amount payable at age 65 would be permanently reduced by 7.2 percent per year for each year of early retirement up to five years and 3.6 percent thereafter. Exhibit 5-2 below shows by what percent retirement pension payments would be reduced at each age for those who retire earlier than 65. The resulting benefit is much more generous to the retiree than most actuarially reduced benefits would be.

Exhibit 5-2
Effect of Graduated Annual Reduction
for Early Retirement

Age at Retirement	Reduction of Benefit	Age at Retirement	Reduction of Benefit
64	07.2%	59	39.6%
63	14.4%	58	43.2%
62	21.6%	57	46.8%
61	28.8%	56	50.4%
60	36.0%	55	54.0%

Source: Prepared by legislative auditor's staff from data supplied by the legislative actuary.

Final Average Salary (FAS). Another feature of the revised plan that would reduce benefit costs is to switch from a three-year to a five-year FAS for new employees. Since salaries normally rise over time, the average of the five highest years would be lower than the average of the three highest years. According to the Wisconsin report, state pension systems normally compute retirement based on the average of two to five years of salary. Although the majority (65 percent) of the plans use a three-year average, a significant portion (21 percent) use five years. Virtually all the rest use two or four years.

Currently, retirement benefits in LASERS and TRSLA are computed by the following formula for most members:

$$\text{Years of Service} \times 2 \frac{1}{2} \text{ percent} \times \text{FAS}$$

The FAS is the average of a member's highest 36 consecutive months (three years) of salary. Based on the existing pattern of salary increases, long-service retirees now replace a significant portion of their income with their retirement pension, as shown in Exhibit 5-3 below. Increasing the averaging period to 60 months (five years) would decrease their FAS. The average of the five highest years is lower than the average of three highest years because most employees' salaries rise over time because of merit increases or promotions. Therefore, adding two more years to the FAS decreases average payouts as follows:

Exhibit 5-3
Retirement Benefit As a Percent
of Pre-Retirement Income

Number of Years at Retirement	LASERS			TRSLA		
	Three-Year FAS	Five-Year FAS	Percent Reduced by Using Five-Year	Three-Year FAS	Five-Year FAS	Percent Reduced by Using Five-Year
10	23.5%	22.0%	6.4%	23.3%	21.8%	6.4%
20	48.0%	46.1%	4.0%	47.3%	44.9%	5.1%
30	72.0%	69.1%	4.0%	70.8%	67.0%	5.4%
40	95.9%	92.1%	4.0%	94.4%	89.4%	5.3%

Source: Prepared by legislative actuary based on projected salaries, assuming a new entrant.

Ten Years From Inception, These Changes May Save As Much As \$53 Million Per Year

The state would realize cost savings under the revised plan gradually in terms of reduced contributions from the general fund. Exhibit 5-4 on the following page projects how implementing the new plan for new employees might gradually

decrease the employer contribution the state must pay. As time passes and new employees enter the system, the effect of the revised plan would become more apparent. By 2004, the total savings from the revised program may reach \$53 million annually, assuming the state had implemented the changes in fiscal year 1994.

Exhibit 5-4
Savings From Revised Plan
for New Entrants

Fiscal Year	Reduction in Employer Contribution	Savings from General Fund
1993-1994	\$0	\$0
1994-1995	0	0
1995-1996	5,094,588	3,489,793
1996-1997	10,164,873	6,962,938
1997-1998	15,446,342	10,580,744
1998-1999	20,940,602	14,344,312
1999-2000	26,648,769	18,254,407
2000-2001	32,186,157	22,047,517
2001-2002	38,637,415	26,466,629
2002-2003	45,768,293	31,351,280
2003-2004	53,402,217	36,580,519

Source: Prepared by legislative auditor's staff from data supplied by legislative actuary.

Defined Contribution Plan Requires Additional Study

If the state wants to consider changing any part of its retirement system to a defined contribution (DC) plan, additional study would be required. Therefore, projections for the revised plan are based on a modification of the existing defined benefit (DB) plan.

Whereas a DB plan offers retirement benefits based on a specified formula, a DC plan provides for a fixed level of contributions and a benefit based on the accumulated value in a retiree's account. Since DB plans are designed to reward long-term employees, Louisiana state employees who leave state service after a short time have a small accrued benefit compared to what they would have in a DC plan. They generally receive only what they contributed to the system, without interest. A DC plan, on the other hand, offers employees who terminate early greater benefits because retirement account values earn interest in the employee's individual account. However, no one knows in advance how much these benefits will be because the amount depends on the investment performance of the employee's account.

We did not pursue a DC plan because making projections regarding such a plan involves a well-designed actuarial study. Such a study would require adequate time to identify all associated costs and select proper actuarial assumptions. Certain critical issues must be considered before adopting a DC plan:

- ♦ There are many options regarding who would be included and how much the employer should contribute. To identify plan parameters, preliminary legal research as well as investment and demographic analysis should be done before commencing the actuarial study.
- ♦ It is generally more expensive in the initial years to switch to a DC plan because of demographic changes. The new entrants who would go into a DC plan would be younger than the rest of the member population. Their benefits would therefore cost less. The existing DB plan would be left with an older population whose benefits would cost more. Consequently, the state would be paying more per employee to fund the old DB plan. Meanwhile, it would also have to pay a fixed amount into the new DC system, which may be greater initially than funding the DB plan benefits for younger employees. As the population in the new plan ages, the

financial gains from fixing all employer contributions at a certain percent would outweigh the losses, but only a complex actuarial model could predict when this would occur.

- ◆ Since a DC plan may not provide a predictable or adequate benefit, the state may need to consider integrating benefits under Social Security as a minimum protection for these employees. Determining whether it is necessary to adopt Social Security involves significant legal research. Social Security would also entail added cost to employee and employer: the employer contribution is 6.20 percent for Old Age, Survivor, and Disability Insurance (OASDI) protection.
- ◆ Because accrued benefits of current employees are constitutionally protected, it may be difficult to terminate the existing DB plans. The UAL in these plans, which consumes the bulk of the employer contribution, would still have to be amortized. The constitutional requirement that total contributions not fall below a certain percentage of payroll would reduce any potential savings until the UAL is fully paid off.

In summary, actuarial modeling for any proposed DC plan should include not only the employer contribution toward retirement benefits but also Social Security contributions. Since survivor and disability benefits are provided by the DB system, the cost of replacing such protection should be studied as well.

Defined Contribution Plan Has Been in State's Colleges and Universities Since 1990

The Optional Retirement Plan (ORP) was created in 1990 by LSA-R.S. 11:921 et. seq. for academic and administrative employees of Louisiana public institutions of higher education who are eligible to join TRSLA. ORP allows participants to direct their retirement accounts in investment options offered by the plan.

ORP's advantage to participants is its portability: while a regular TRSLA member who leaves state employment without serving 10 years has no retirement benefits, an ORP member may continue the retirement plan at another college or university. Further, the regular TRSLA member is entitled only to a return of his or her contributions without interest, whereas an ORP

member is entitled to all the interest earned on these contributions. Consequently, a plan member who anticipates changing employers may be better served by choosing ORP. Such members tend to be younger. As shown in Exhibit 5-5 below, the college and university membership in the regular TRSLA plan has grown older during the five years ORP has been offered, while each year new and existing TRSLA members join ORP. A member who chooses to participate in ORP may not go back to the regular TRSLA plan.

State law provides that ORP participants must contribute the same percentage of salary as other TRSLA members, as described in Appendix I. Their employer must contribute the normal cost of the regular TRSLA system on behalf of that participant. Because the normal cost is calculated based on the existing plan population, this cost has steadily risen over the five years of ORP's existence. Generally, the older the population, the higher the cost of their benefits. Thus, ORP participants have enjoyed an increase in employer contribution as the average age of the population remaining in TRSLA has grown.

Exhibit 5-5
Regular and ORP Participation
in Louisiana Colleges and Universities

TRSLA Regular Members in Colleges and Universities	1990	1991	1992	1993	1994	1995
Average Age	44.62	46.59	47.42	48.04	48.14	47.68
Average Service	11.1	13.27	14.07	14.77	14.92	14.5
Total Members	9314	7420	7113	6616	6278	5967
Members Joining ORP	0	2761	877	1257	943	1033
TRSLA Normal Cost (employer contribution)	6.47%	6.57%	6.78%	6.81%	6.87%	7.09%

Source: Created by legislative auditor's staff from data supplied by the legislative actuary and from the annual financial reports of TRSLA.

Limiting Sick and Annual Leave Conversion Could Reduce Benefit Costs

By limiting or eliminating the amount of unused sick and annual leave credit a member can convert at retirement, the state could reduce the amount it contributes to the retirement systems. If the conversion of *future* sick and annual leave were capped at one year, the state could save approximately \$3.6 million in the first year, all of it in LASERS. TRSLA currently has such a cap. If all future conversion of sick and annual leave credit were eliminated for LASERS and TRSLA, the state could save approximately \$33.3 million in the first year.

LASERS and TRSLA members' leave accumulation is explained in Chapter Three. Currently, some unused sick and annual leave may be converted to retirement credit at the point of retirement as follows:

LASERS

- ♦ There is no limit to the amount of unused sick and annual leave that can be converted to retirement credit at no additional cost to the member.

TRSLA

- ♦ Up to one year of sick leave earned after June 30, 1990, and unused may be converted to retirement credit at no additional cost to the member.
- ♦ Sick leave over that amount earned after June 30, 1990, may be purchased on an actuarial basis for conversion to retirement credit. Purchasing such leave on an actuarial basis means there is no cost to the system for funding it.
- ♦ Although most TRSLA members do not earn annual leave, those who do may purchase unused annual leave on an actuarial basis for retirement conversion.
- ♦ Sick or annual leave earned before June 30, 1990, can be converted to retirement credit.

Conversion May be Incentive Not to Use Leave. Before completely eliminating leave conversion, the state should consider that the ability to convert leave to retirement credit may be an incentive to a potential retiree not to use that leave just before retirement. Whether the state could make this change for

employees other than new hires might also depend on legal ramifications, although leave conversion in TRSLA was changed in 1990. We did not make separate projections for new hires, but making similar changes for them would also yield savings.

Complete Elimination and One-Year Cap Studied

The legislative actuary studied two options for restricting conversion of sick and annual leave, both of which would reduce the state's contributions toward providing benefits for future retirees. Sick and annual leave accrued up to the point the provision becomes active would not be affected.

Option 1: Completely eliminate the amount of future unused sick and annual leave that can be converted to service credit at retirement. New hires would receive no sick and annual leave conversions at retirement.

Option 2: Limit the amount of future convertible leave to one year.

The legislative actuary calculated the employer's annual cost of funding the unused sick and annual leave conversions under each option, then compared it with the annual cost of unused sick and annual leave conversions under current rules.

Data on the current cost of leave conversion are from the fiscal year ended June 30, 1993. Therefore, we assume for the purposes of this illustration that the options presented became active for that fiscal year. Any accrued leave from that date forward is not counted under Option 1 or capped at one year under Option 2. The savings under each option represent the difference between the current costs of funding this benefit and the costs the employer would pay if leave conversions were capped or eliminated. The state should achieve similar savings in subsequent years. Results of the computations are shown in Exhibit 5-6 on the following page.

**Exhibit 5-6
1993 Savings From Capping or Eliminating
Sick and Annual Leave Conversion**

	1	2	3	4	5
	Employer Normal Cost of All Current Benefit Provisions	Cost Under Option 1-Eliminate Conversions	Savings Under Option 1 (Column 1 minus Column 2)	Cost Under Option 2-Cap Conversions at One Year	Savings Under Option 2 (Column 1 minus Column 4)
LASERS	\$79,013,870	\$70,040,710	\$8,973,160	\$75,376,415	\$3,637,455
TRSLA	\$164,457,232	\$140,141,953	\$24,315,279	\$164,457,232	\$0
TOTAL	\$243,471,102	\$210,182,663	\$33,288,439	\$239,833,647	\$3,637,455

Source: Prepared by legislative auditor's staff from data supplied by the legislative actuary.

**Revised
Survivor/Death
Benefit Yields
Savings, But
May Be
Inequitable**

Louisiana would save approximately \$3 million in the first year by adopting a revised in-service survivor benefit for current LASERS and TRSLA members. Currently, the in-service survivor benefit pays the spouse and/or dependents of retirement plan members with five to ten years of service a specified amount if the member dies before retirement. A group life insurance policy, which most full-time state employees can purchase through SEGBP, also pays a death benefit to an employee's survivors. The state provides partial funding for this policy, as discussed in Chapter Four. If the state no longer had to pay its share of life insurance premiums for LASERS and TRSLA members, the total savings would be almost \$10.5 million.

Equity Issues Should Be Considered

The revised benefit would cover more employees, but at a reduced level for many. The LASERS and TRSLA survivor benefit would be replaced with a lump-sum death benefit available to all members regardless of service. Survivors of deceased members would no longer be eligible for a monthly payment. Currently, survivor benefits provide monthly payments for survivors of employees with five to ten years' service, depending on family composition.

Since Louisiana employees are normally not eligible for Social Security, there would be no monthly income to replace the survivor benefit. In contrast, the private sector and all but six states are Social Security participants, which means their employees' survivors are eligible for monthly survivor benefits under Social Security. Appendix I contains a detailed description of the current survivor and death benefit provisions for each system.

For these reasons, it may not be equitable or legally advisable to change benefits for current system members. Nevertheless, comparing the death benefit revision with the current survivor and death benefits illustrates the potential economic advantage in developing a consolidated death benefit plan covering all employees.

Louisiana Survivor Benefits More Generous Than Other States and the Private Sector

We compared LASERS and TRSLA survivor/death benefits with other state and local governments and the private sector. Exhibit 5-7 on the following page highlights these comparisons. A more complete discussion can be found in Appendix O. The charts in Appendix J summarize these benefits for Louisiana state employees in LASERS and TRSLA, employees of state and local governments, and employees of medium to large private sector companies. Most of the statistics were originally compiled by the U.S. Department of Labor.

Exhibit 5-7
Current LASERS and TRSLA Survivor Benefits
Compared With Other State Governments
and the Private Sector (Appendix J)

- ◆ Like LASERS and TRSLA members, most government employees in defined benefit plans have annuities payable to the spouse if a member dies before retiring.
- ◆ Louisiana is one of a few employers that pays a survivor annuity equal to either a flat (unreduced) percentage of salary or service projected to the retirement date. Most other plans have Qualified Preretirement Survivor Annuities (QPSAs), which reduce benefits when death occurs before retirement age. QPSAs are required in the private sector. Consequently, M&R recommends the adoption of a provision reducing payments to a spouse that begin before the employee would have turned 65.
- ◆ Louisiana has one of the rare plans that offers survivor benefits to children.
- ◆ Louisiana is one of the six states whose employees are not covered for Social Security, which pays survivor benefits to spouses and children.
- ◆ Louisiana's group life insurance benefit is typical for a government employee life insurance plan in that it is a flat dollar amount.
- ◆ However, all but six states and virtually all the private sector pay the total cost of employee group life insurance; Louisiana pays only half

Source: Created by legislative auditor's staff from Appendix J.

Revision Results in Savings in LASERS, But Would Increase Death Benefit Costs for TRSLA

Based on the SECURE Council's Phase I recommendations, we investigated the cost implications of revised death benefits to replace the survivor benefit in LASERS and TRSLA. Under this revision, costs would decrease for the death benefit in LASERS but increase for the death benefit in TRSLA. If eliminating what the state pays for the SEGBP group life policy is considered, the net savings in making changes in the death benefit are over \$10 million in the first year for both systems.

The benefit revision assumes that funding would be through a self-insured fund outside the pension plan with contributions provided by the employer. The employee's contributions toward the retirement system, which are fixed in statute, would remain level from year to year as they are now but would be equal for all employees covered. Current employee

contributions are displayed in Appendix I. Nationally, most public employee pension plans require employee contributions for their primary pension as follows:

Exhibit 5-8	
Employee Contributions Required by Major Public Plans	
Employee Contributions	Number of plans
0 - 5 %	29 plans
Over 5%	37 plans*
Rate varies by age or group	8 plans
Plan is noncontributory	11 plans
* Includes LASERS and TRSLA	
Source: 1994 Comparative Study of Major Public Retirement Systems, State of Wisconsin Retirement Research Committee.	

For 68 of the 85 plans, social security coverage is also provided.

Significant elements of the revision include the following:

Revised In-Service Death Benefit

In self-insured fund outside pension plan

- ◆ lump sum of two times pay
- ◆ immediate eligibility for all active members

In pension plan

- ◆ liable only for return of employee contributions if active member dies

The costs of the revised and current benefits are compared using an actuarial method called ***one-year term cost (1 YRTC)***. This method measures what the actuaries expect the plan to pay in benefits in the next plan year. The costs shown in the following exhibits are stated as one-year term costs for the current and revised benefits for the plan year ended June 30, 1994.

In Exhibit 5-9 on the following page, it is clear that the initial one-year term cost of the revised in-service death benefit would be almost \$3.8 million less in LASERS than the cost of the present benefit. However, the one-year term cost of the revised

death benefit would be about \$725,000 more than the current benefit in TRSLA. This is because the current LASERS in-service death benefit is more generous than TRSLA's.

In addition to its retirement contributions, the employer (the state and its political subdivisions) pays half the stated premium for a life insurance policy available to most LASERS and TRSLA employees. The program is available to more than 70 percent of LASERS and TRSLA members through the SEGBP. Generally, a full-time employee or retiree may choose to purchase term life insurance in face amounts up to a maximum of \$40,000, based on salary. The policy is discussed in detail in Chapter Four.

Exhibit 5-9
Initial Savings from Revised Death Benefit
Based on Plan Year Ended June 30, 1994

	Current Plan	Revision	(Savings) Cost of Replacing Current Plan with Revision
LASERS			
Total One-Year Term Cost	\$12,910,000	\$9,117,000	(\$3,793,000)
Cost Per Member	\$193	\$136	(\$57)
Percent of Pay	0.83%	0.59%	(0.24%)
TRSLA			
Total One-Year Term Cost	\$13,293,000	\$14,018,000	\$725,000
Cost Per Member	\$157	\$166	\$9
Percent of Pay	0.59%	0.62%	0.03%
Total Savings for Both			(\$3,068,000)

Source: Prepared by legislative auditor's staff from data supplied by M&R.

The revised death benefit plan would provide coverage that would essentially duplicate the SEGBP policy. Therefore, if the premiums were eliminated for active LASERS and TRSLA members, the employer(s) might save an additional \$7.4 million

per year. Considering the costs and savings in each system, this would produce a potential total savings of almost \$10.5 million in the initial year, as shown in Exhibit 5-10 below.

Exhibit 5-10	
Potential Total One-Year Term Cost Savings in Revised Death Benefits in Initial Year, Based on Plan Year Ended June 30, 1994	
Item	Survivor/Death Benefit
(Savings) Cost in LASERS of Revised Death Benefit	(\$3,793,000)
(Savings) Cost in TRSLA of Revised Death Benefit	725,000
Annual Employer Contribution to Life Insurance for LASERS and TRSLA Members--Saved	(7,399,776)
Total Savings Impact	(\$10,467,776)

Source: Prepared by legislative auditor's staff from data supplied by the legislative actuary and SEGBP.

Revised Death Benefit Costs 10 Years Later. Finally, we considered the costs of the revision 10 years from now compared with the costs of the current survivor benefit. The effect of removing the SEGBP group life premiums is not considered in this illustration. This is because the current and revised death benefits and the SEGBP life insurance plan were developed using different actuarial assumptions.

The revision will save \$4.5 million annually over the current benefit by fiscal year 2003-2004 if the LASERS and TRSLA populations do not increase. These savings would be \$6 million if the populations increase by only one percent. Assuming the state had adopted the revision in 1993, the total savings over the 10-year period from 1993-2003 would be \$41.1 million for no population increase and \$44.4 million for a one percent increase. Of these amounts, \$28.2 million and \$30.5 million, respectively, would be savings to the state general fund. Summaries of annual and cumulative costs and savings, along with the portion of the total costs/savings that would come from the state's general fund, are shown in Exhibits 5-11 and 5-12 on the following page.

Exhibit 5-11
Annual Cost (Savings) of Revised Death Benefit
in Fiscal Years 1994 and 2004

System	1994 Savings	2004 Savings No Population Growth	2004 Savings 1% Population Growth
LASERS	(\$3.8)	(\$5.6)	(\$7.2)
TRSLA	\$0.7	\$1.1	\$1.2
Total	(\$3.1)	(\$4.5)	(\$6.0)

Amounts shown in millions; savings in parentheses.

Source: Prepared by legislative auditor's staff from data supplied by the legislative actuary.

Exhibit 5-12
Cumulative Total Cost (Savings) of Revised Death Benefit
Over the Ten-Year Period From 1994 to 2004

System	No Population Growth		1% Population Growth	
	Total	From General Fund	Total	From General Fund
LASERS	(\$51.2)	(\$35.1)	(\$55.0)	(\$37.7)
TRSLA	\$10.1	\$6.9	\$10.6	\$7.2
Total	(\$41.1)	(\$28.2)	(\$44.4)	(\$30.5)

Amounts shown in millions; savings in parentheses.

Source: Prepared by legislative auditor's staff from data supplied by the legislative actuary.

**Revised
Disability
Benefit Would
Be Costly, But
Would
Enhance
Coverage**

Louisiana would spend approximately \$11.5 million more in the first year by going to a revised in-service disability benefit. The disability revision would extend disability coverage to all LASERS and TRSLA members at a standard level of income replacement. According to the Bureau of Labor Statistics, the typical long-term disability policy replaces 60-67 percent of predisability salary.

Disability benefits provide income to an employee who is unable to work. A revised disability benefit would provide a much higher benefit level to a greater number of people. For instance, it currently takes an employee 26 years in LASERS to attain the revised benefit level of 65 percent of predisability pay.

Under a revised plan, all retirement plan members would be eligible for the benefit, whereas only about 43 percent of LASERS and 73 percent of TRSLA members are eligible now. Those who are ineligible for disability under their retirement systems are generally not eligible for Social Security disability payments because the state does not contribute to Social Security.

Both LASERS and TRSLA provide members with a monthly in-service disability benefit after they meet service eligibility requirements of five years in TRSLA or 10 years in LASERS. Appendix I contains a detailed description of the current disability benefit provisions for each system.

Disability Typical for LASERS and TRSLA Members, but No Social Security or Long-Term Plan

We made disability benefit comparisons similar to those we made for survivor and death benefits in Appendix J. Exhibit 5-13 below highlights these comparisons:

Exhibit 5-13 Current LASERS and TRSLA Disability Benefits Compared With Other States and the Private Sector

- ◆ LASERS, TRSLA disability benefits are typical for a defined benefit plan.
- ◆ Nearly one-third of government employees and 41 percent of employees in the private sector have long-term disability (LTD) insurance. Louisiana employees are eligible only for their accrued retirement benefit.
- ◆ Louisiana's employees are generally ineligible for Social Security, which pays monthly disability benefits.

Source: Prepared by legislative auditor's staff from data in M&R report, Appendix O.

Revised Disability Benefit Would Be Costly

Based on the SECURE Council's Phase I recommendations, we investigated the cost implications of revised disability benefits. Under this revision, costs would increase for the disability benefit in TRSLA and LASERS. The cost of making this change would be almost \$11.5 million in the first year.

The revision assumes that the benefit would be funded through a self-insured fund outside the pension plan with contributions provided by the employer. Significant elements of the revised benefit include the following:

Revised Disability Benefit

In self-insured fund outside of pension plan

- ◆ 65 percent of predisability pay
- ◆ benefit starts after 6-month waiting period

In pension plan

- ◆ vested members provided with additional accrued benefit payable at age 65 from the retirement system
- ◆ nonvested members provided with return of their contributions at the time of disability, if the disability occurs on or before age 65

The revised and current disability benefits are compared using the **one-year term cost**, as previously described. The costs shown in the following exhibits are stated as one-year term costs for the plan year ended June 30, 1994.

In Exhibit 5-14 on the following page, the initial one-year term costs of the revised benefits are \$7.5 million and nearly \$4 million greater than the current disability benefits in LASERS and TRSLA, respectively. The increase in TRSLA is less, even though its population is greater, because its current disability benefits are more generous than LASERS.

Exhibit 5-14
Initial Cost of Replacing Disability Benefit With Revision
Based on Plan Year Ended June 30, 1994

	Current Plan	Revision	Cost of Replacing Current Plan With Revision
LASERS			
Total One-Year Term Cost	\$8,955,000	\$16,458,000	\$7,503,000
Cost Per Member	\$134	\$246	\$112
Percent of Pay	0.58%	1.06%	0.48%
TRSLA			
Total One-Year Term Cost	\$25,458,000	\$29,429,000	\$3,971,000
Cost Per Member	\$301	\$348	\$47
Percent of Pay	1.13%	1.31%	0.18%
Total Cost for Both Systems			\$11,474,000

Source: Created by legislative auditor's staff from data supplied by the legislative actuary and M&R.

Revised Disability Benefit Costs Ten Years Later.

Finally, we considered the costs of the revision 10 years from now compared with the costs of the current disability benefit. The revised disability benefit will cost approximately \$17.2 million more annually than the current one by fiscal year 2004 if the LASERS and TRSLA populations do not increase. These costs would be \$19 million more if they increase by only one percent. Assuming the state had adopted the revision in 1993, the total increased costs over the 10-year period from 1993-2003 would be \$156.4 million for no population increase and \$165.1 million for a one percent increase. Of these amounts, \$107.1 million and \$113.1 million, respectively, would come from the general fund. Summaries of initial and total costs, along with the portion of the total costs that would come from the state's general fund, are shown in Exhibits 5-15 and 5-16 on the following page.

Exhibit 5-15
Annual Cost of Revised Disability Benefit
in Fiscal Years 1994 and 2004

System	1994 Cost	2004 Cost No Population Growth	2004 Cost 1% Population Growth
LASERS	\$7.5	\$11.1	\$12.3
TRSLA	\$4.0	\$6.1	\$6.7
Total	\$11.5	\$17.2	\$19.0

Source: Prepared by legislative auditor's staff from data supplied by the legislative actuary. Amounts shown in millions.

Exhibit 5-16
Cumulative Total Cost (Savings) of Revised
Disability Benefit Over the Ten-Year Period
From 1994 to 2004

System	No Population Growth		1% Population Growth	
	Total	From General Fund	Total	From General Fund
LASERS	\$101.2	\$69.4	\$106.9	\$73.3
TRSLA	\$55.2	\$37.7	\$58.2	\$39.8
Total	\$156.4	\$107.1	\$165.1	\$113.1

Source: Prepared by legislative auditor's staff from data supplied by the legislative actuary. Amounts shown in millions.

LASERS Long-Term Disability Enhancement Would Pay Higher Benefits to More Employees

In addition to the revision recommended for study by SECURE, LASERS proposed a supplemental disability policy that would pay higher benefit levels to a larger number of employees. The program would be self-funded and costs could be paid by the employee or by both employee and employer. Legislation to establish this program failed in the 1995 Regular Session, but the system intends to re-introduce the issue.

LASERS' Board of Directors authorized an independent actuarial study in August 1994 to design a program to supplement disability retirement. The program would allow LASERS members to purchase insurance coverage that would replace 50 percent of salary in the event of disability. As the member spends more years in the job, he or she accrues greater disability benefits under the retirement formula. Consequently, he or she would purchase less supplemental insurance as the years go by. The existing disability retirement benefit would remain unchanged. LASERS is not aware of any other state that has implemented such a program.

Exhibit 5-17 below describes the benefit levels under the benefit LASERS is proposing.

Exhibit 5-17			
LASERS Proposed Disability Enhancement			
Percent of Predisability Income Replaced			
Years of Service (YOS)	Disability Benefit Under LASERS Formula (2 1/2 % * YOS*FAS)	LTD Enhancement Benefit (maximum)	Total Benefit to Disabled Member
1-10	0.0%	50.0%	50.0%
10	25.0%	25.0%	50.0%
15	37.5%	12.5%	50.0%
20	50.0%	0.0%	50.0%
25	62.5%	0.0%	62.5%
30	75.0%	0.0%	75.0%

Source: Prepared by legislative auditor's staff from data supplied by LASERS.

Members would be eligible for the LTD Enhancement Program after two years of service. The benefit would be payable six months after the member files for disability. It would continue until age 65. A lifetime benefit option will be reviewed for possible inclusion at another date.

The LTD Enhancement would contain strong incentives to return to work as soon as possible. A mandatory rehabilitation program would track progress made toward getting well. Also, the Social Security "any occupation" definition of disability would become effective after two years. This means that a member would be considered disabled only if he or she were unable to perform any occupation after two years of receiving disability benefits.

Funding for LTD Enhancement. Costs of the LTD Enhancement Benefit program would be split between the member and the employer or could be totally paid by the member. The cost would be 0.60 percent of payroll (0.3 employee, 0.3 employer) if the employer pays half the cost and 0.66 percent of payroll if the employee pays all, as shown in Exhibit 5-18 below. If the employer pays part of the premium, more employees would join. Generally, the larger the group, the less expensive the coverage. Based on the June 1993 average LASERS member salary of \$21,970, this would be \$132/year or \$11/month if the employer pays half, \$145/year or \$12/month if the employee pays all. Individual premiums would vary depending on salary and level of coverage selected.

Exhibit 5-18
Sample Premium for LTD Enhancement
Based on Average LASERS Salary

Average LASERS Salary	Who Pays	Percent of Payroll Factor	Annual Premium	Monthly Premium
\$21,970	Employer and Employee	0.3	\$66	\$5.50
		0.3	\$66	\$5.50
\$21,970	Employee	0.66	\$145	\$12

Source: Prepared by legislative auditor's staff from data supplied by LASERS.

**CPI-Related
COLA for
Retirees Would
Cost \$198
Million
Annually**

Cost-of-Living Increases (COLAs) are a means of helping retiree incomes keep pace with inflation. COLAs can best accomplish this when they are given regularly, based on an index such as the Consumer Price Index (CPI). Granting regular, automatic COLAs to LASERS and TRSLA members and retirees based on a variant of the CPI could cost approximately \$198 million the first year and \$5.4 billion over an 11-year period, in addition to other required retirement system funding.

COLAs can be funded in two ways: in advance by prefunding and in arrears by amortization. When COLAs become part of the retirement systems' debt, the state's constitution requires that they be amortized. Doing so can be costly: a COLA granted in 1991 to LASERS and TRSLA members created a liability of \$172 million as of September 1991. For this liability, the fiscal year 1995 amortization payment is \$21.6 million. Over the life of the amortization schedule, payments will exceed \$245 million.

The legislature addressed this issue in 1992 by creating experience accounts (EAs) to prefund COLAs from excess investment earnings generated by LASERS and TRSLA retirement system funds. Specifically, when investment income exceeds what the actuaries project, half the excess goes to the EA. When the EA grows large enough to pay a COLA at a level desired by the system and approved by the legislature, the COLA can be funded from the system's EA. As of June 30, 1994, LASERS had nearly \$38 million in its EA while TRSLA had about \$172 million, for a total of \$210 million.

However, EAs have several drawbacks. For example, poor investment performance may deplete the funds, leaving no money for COLAs. Even if investment performance is good, this method offers no assurance as to the size and frequency of future increases. Further, current active members are helping to fund increases for current retirees, since part of the money the systems invest comes from the active members' contributions. Most importantly, half the investment gain goes to the EA rather than directly into system assets. Because the UAL is essentially the systems' accrued liabilities minus its assets, this means the UAL is larger than it would have been if the systems had kept their investment gains. Consequently, the state and other employers must pay larger contributions to reduce the UAL according to the constitutionally mandated amortization schedule.

Potential Cost Impact from Granting CPI-Based COLAs. Because the EAs impair the state's ability to pay off the systems' UAL, the legislative actuary studied a COLA that would be funded in advance as part of the employer's regular contribution to the retirement systems. When current active members retire, funds would be available to grant regular COLAs. The current retired population would also receive regular COLAs under this formula.

Unlike many state pension systems, the Louisiana retirement systems do not grant automatic COLAs based on an inflation index. According to a study produced by the Joint Survey Committee on Retirement Research in Wisconsin, nearly 46 percent of the state plans studied provide a COLA benefit that is CPI-related. The Social Security Administration has also used the CPI index since 1975 to calculate automatic COLAs. Based on this index, the rate of Social Security benefit increases in the last 10 years has been as shown in Exhibit 5-19 below.

Exhibit 5-19
CPI-Based Social Security Increases for 1985-1994

Year	Percent Increase for Next Year	Year	Percent Increase for Next Year
1985	3.1%	1990	5.4%
1986	1.3%	1991	3.7%
1987	4.2%	1992	3.0%
1988	4.0%	1993	2.6%
1989	4.7%	1994	2.8%

Source: Created by legislative auditor's staff from data supplied by the legislative actuary.

The compound rate of increase over the 10 years shown above provided a 40.7 percent benefit increase for Social Security recipients. In contrast, the only COLA for LASERS and TRSLA members during the same period, which was granted in 1991, provided a flat dollar rate increase.

To determine the cost of a COLA that more closely reflects inflation, the legislative actuary projected automatic annual COLAs for LASERS and TRSLA. Such COLAs would be based on the CPI, with increases capped at three percent per year. The projection assumes that the CPI in the 11 years

beginning in 1993 follows the pattern of the 10 years shown on the preceding page. Calculating COLAs this way would result in a 31.4 percent increase in retirement benefits over the 11-year time frame. As shown in Exhibit 5-20, it would cost approximately \$198 million in the first year for LASERS and TRSLA to prefund such COLAs. Of this amount, \$137 million would come from the general fund. By fiscal year 2004, the cost of this COLA would escalate to approximately \$617 million, \$427 million of it from the general fund. Over the 11-year period studied, the total cost of prefunding such COLAs is projected to exceed \$5.4 billion. Growth in costs occurs primarily because salaries increase over time.

Exhibit 5-20
Projected Annual Cost of CPI-Related COLAs

Fiscal Year	LASERS and TRSLA	
	Total	From General Fund
1993-1994	\$197,925,660	\$137,149,568
1994-1995	426,296,394	295,316,087
1995-1996	453,902,729	314,424,391
1996-1997	481,065,487	333,223,903
1997-1998	506,016,216	350,499,498
1998-1999	531,265,156	367,981,878
1999-2000	515,969,494	357,387,324
2000-2001	540,132,964	374,123,467
2001-2002	564,976,651	391,336,065
2002-2003	590,720,057	409,175,004
2003-2004	617,055,958	427,425,405
Total	\$5,425,326,766	\$3,758,042,590

Source: Prepared by legislative auditor's staff from data supplied by legislative actuary.

For the employer, COLA funding would be in addition to other retirement funding obligations. If such a COLA were granted annually and amortized rather than paid for up front, it would cost additional interest annually for each year's COLA. Under an automatic, recurring COLA, each succeeding year would add another layer of amortization payments.

DROP Liability Difficult to Measure

The Deferred Retirement Option Plan (DROP) was effective in 1991 for LASERS and 1992 for TRSLA. Because it is so new and also unique to Louisiana, it is difficult to measure actuarially. *Since no reliable experience measurements are available, the state cannot know the extent of its liability for this program.*

DROP allows retirement-eligible system members to continue to work while accumulating credits based on the amount they would have received as a retirement benefit. When members finish a three-year term in DROP, they may retire and take the DROP proceeds with interest as part of their retirement, or continue to work.

Generally, a member who is eligible to retire can enter the program. The retirement system calculates the pension benefit earned, but cannot pay it to the member since he or she has not yet formally retired. *Instead, the system pays an amount equal to the pension benefit to a subaccount it keeps in the member's name. Assets of this account are invested along with other pension assets. Neither the member nor the employer makes contributions to the retirement system during this time, resulting in an immediate salary increase to the member and a savings to the employer. Also, the member does not accrue years of service credit during DROP participation. If the employee continues to work after completing DROP, his or her salary is frozen at the DROP entry date for the purposes of computing the final average salary on which the benefit is based. He or she will, however, accrue years of service credit and must make employee contributions again to the system.*

Since 1991, the legislative actuary has been assimilating DROP data from LASERS experience. However, changes made in 1993 allowed LASERS DROP participants who had finished a two-year DROP term to re-enter the program for an additional year. Because this changed the actuarial database, the actuary must observe the program further to come up with any meaningful conclusions as to how much it costs. Actuarial cost determinations are based on a number of factors that measure who uses the program for how long and how much is paid out.

DROP can be economically beneficial to the system under certain conditions. The legislative actuary's preliminary modeling with DROP indicates that if four major factors are present, they can help the program produce cost savings to the retirement system:

1. Entry is limited to a "window" of earliest eligibility. TRSLA had such a provision in place; LASERS now has a window as a result of Act 551 of the 1995 Regular Session (See Appendix I). The length of stay in both systems' DROP begins 60 days after a member is first eligible and ends three years later.
2. Salaries that would have risen are frozen for the purpose of computing retirement benefits. If a DROP participant is at the top of a salary range, then there is no benefit to the system from freezing his or her salary.
3. All employees are encouraged to retire earlier than they would have otherwise, thus freezing the retirement system's liability.
4. Younger employees who have accumulated many years of service are encouraged to use the program rather than accumulating higher salaries and more service.

These situations are more fully illustrated in Appendix K.

**Legislative
Controls Could
Enhance
Quality of
Information**

Complete and timely descriptions of the potential cost of proposed retirement legislation are essential. According to the National Council of State Legislatures' Pensions Working Group, "A single, ill-conceived provision in a single act could have significant financial consequences that are not fully apparent for many years." Once cost studies are performed, retirement legislation should be carefully considered in terms of whether the state can afford it.

Several options could help accomplish these goals, including moving back the prefiling deadline for retirement legislation, dual referral of retirement legislation to the Senate Finance or House Appropriations Committees, and ensuring that

cost notes are attached to all retirement legislation, including floor amendments.

However, two other options might yield little additional benefit if applied in Louisiana. These are requiring retirement bills to lay over for one year and creation of another pension oversight body.

Moving Back Prefiling Deadline Would Allow More Thorough Study of Retirement Legislation

Moving back the prefiling deadline for retirement legislation would provide more time to produce thorough actuarial cost studies. State statute requires the legislative actuary to produce cost notes on each retirement bill. These notes contain a summary of the projected cost of the retirement legislation.

Currently, Louisiana's Constitution requires retirement bills to be prefiled by the Friday before the start of the session. Each legislator is allowed to file up to five additional bills, which may include retirement, after the prefiling deadline. After a retirement bill is filed, an actuarial note is prepared. This allows only a short period in which to conduct complex actuarial cost studies. In recent years, legislative requests of the actuary's office for actuarial notes and cost studies have been more frequent. For example, there were 253 retirement bills in the 1995 session. The bills require actuarial notes, which often involve difficult issues such as DROP.

Like many retirement bills, capital outlay requests are often complex and involve significant long-term funding. Act 133 of the 1994 Third Extraordinary Session requires that capital outlay requests be submitted by November 1 to allow for an adequate study period. Such requests can be filed later only if certain emergency conditions are met and certified by a designated official. Although amendments made during the session could alter the cost impact of retirement legislation, extending the time frame for study would alleviate some of the time pressure that can inhibit the production of thorough cost notes and studies. A constitutional amendment to Article 3, Section 2(A)(1) may be required to make this change effective.

Dual Referral Could Promote Financial Perspective

Despite the fact that retirement is an issue of enormous fiscal importance, the committees charged with budgetary responsibilities in each house do not currently hear retirement bills. Dual referral of retirement legislation to the appropriate retirement committees and the Senate Finance or House Appropriations Committees, which are charged with budgetary responsibilities, might promote more thorough review from the fiscal perspective. Senate rules 13.5.1 and 13.5.2 make provisions for dual referral.

These committees already hear certain proposals with a high cost impact. The Administrative Procedure Act requires that proposed executive agency rules with a fiscal impact of over \$1 million be referred to the Senate Finance or House Appropriations Committees, in addition to any other committee assignments. The overall effect of any single retirement bill may be far greater than \$1 million.

Many other states that actively monitor retirement legislation require such legislation to be referred to more than one committee. We surveyed 17 states having pension oversight committees or commissions. Of these, nine require that retirement legislation be referred to more than one legislative committee in a single chamber.

Floor Amendments to Retirement Can Go Forward Without Actuarial Note

Although LSA-R.S. 24:521 requires actuarial notes for amendments to retirement legislation, this law allows floor amendments to be adopted without an actuarial note in some circumstances. Such amendments can potentially alter the actuarial and fiscal impacts of a bill.

The law provides that a motion to attach an actuarial note to a retirement floor amendment can be proposed, but it must pass by majority vote. If the motion does not pass, the amendment may be adopted without the actuarial note. Such last minute amendments may change the cost structure of a retirement bill substantially. Without a cost note, the legislature will not know the impact of the change.

Other states offer models for limiting floor amendments to retirement legislation. For example, a Georgia statute states

that if an amendment to a retirement bill does not have an actuarial note and the bill is passed, it shall stand repealed the July 1 following its enactment. A drawback of Georgia's provision is that if a retirement law were passed and subsequently repealed, those who stood to benefit from the law may be negatively impacted. A North Carolina statute provides that retirement floor amendments without an actuarial note are out of order if they affect the costs or revenues of a retirement system.

One-Year Study Period Not Common Practice

Although a one-year study period would allow additional time for detailed study of complex retirement issues, moving back the prefiling deadline for retirement legislation would address the same goal. At the SECURE Council's request, we studied a mandatory one-year study period for retirement legislation, with exceptions for emergency or federally required legislation.

We found that requiring retirement bills to lay over for one year before passage is not common practice among the states we surveyed. Of the 17 states that have pension commissions or legislative oversight committees, only one requires a one-year layover for retirement legislation. Further, Louisiana's Constitution [Article 3, Section 1(B)] does not allow bills to carry over from one session to the next. Finally, even if exceptions were made for emergency or federally required legislation, many bills might fit those exceptions.

Louisiana's Pension Oversight Consistent With Common Practice in States We Surveyed

At the SECURE Council's request, we studied a proposal to institute a formal pension commission for the independent review of retirement legislation. However, we found that Louisiana's oversight committee structure is consistent with common practice in other states we surveyed.

Louisiana has legislative retirement committees currently in place. One of these is the Public Retirement Systems' Actuarial Committee (PRSAC). Members include the state treasurer, the commissioner of administration, the president of

the Senate, the speaker of the House, the legislative actuary, two retirement system actuaries, and an independent actuary.

In addition, there are the retirement committees in the Senate and House, which sometimes meet jointly. Our survey of 17 states having pension committees or commissions revealed that the typical body:

- ♦ is called a committee,
- ♦ is composed primarily of legislators,
- ♦ reviews proposed legislation and may also propose it,
- ♦ must complete its review in less than a year's time,
- ♦ has access to the services of an actuary,
- ♦ has permanent staff, most likely including fiscal or policy analysts,
- ♦ cannot stop a retirement bill from being passed, and
- ♦ any bill it hears probably must be referred to one additional committee.

Louisiana's committees fit the composite profile of a typical pension oversight body, except that they are not compelled to refer legislation to another committee in the same chamber.

Because Louisiana's pension oversight structure is typical, creation of an additional body such as a pension commission may be of limited benefit. Further, it may take an even longer prefiling requirement or study period to accommodate review of proposed legislation by both the legislative actuary and an additional pension oversight body.

Matters for Legislative Consideration

The legislature may wish to consider:

1. Applying future windfalls toward amortizing the UAL.
2. Requiring a periodic evaluation of amortization schedule options.
3. Making benefit changes only for new entrants to the retirement systems to avoid the litigation costs that would likely result from benefit revisions.
4. Instituting a revised plan for new LASERS and TRSLA entrants with the following features:
 - ♦ Normal retirement at age 65
 - ♦ Reduced benefits for early retirement before age 65
 - ♦ Minimum early retirement age
 - ♦ High five-year (60-month) annual salary
5. Amending LSA-R.S. 11:424 and LSA-R.S. 11:752 to cap the conversion of sick and annual leave for retirement credit.
6. Not changing the in-service survivor benefit for current retirement system members.
7. Authorizing study of a revised survivor plan for new entrants because cost saving opportunities exist.
8. Authorizing study of disability options such as the one proposed by LASERS.
9. To minimize the cost of COLAs and to avoid adding to the retirement systems' substantial UAL, any COLAs granted should be prefunded rather than amortized.
10. Allowing no further changes to the DROP programs so that an actuarial experience base can be accumulated.

11. Establishing the prefiling requirements for retirement legislation as November 1, the date prescribed for capital outlay requests. In addition, appoint the legislative actuary as the certifier for any exceptions. Finally, draft the law so that the legislative actuary receives the bills promptly after they are filed.
12. Instituting dual referral for all retirement legislation to the Senate Finance or House Appropriations Committees, as well as the appropriate retirement committees in each house.
13. Requiring actuarial notes for floor amendments to retirement legislation.

Appendixes

Appendix A: Primary Sources Used

We used data from many sources, including:

1994 Society of Human Resource Management: Greater Baton Rouge Salary Survey
performed by William M. Mercer, Incorporated

*HR Management Association, New Orleans Area/New Orleans Compensation and Benefits
Association 1994 Wage and Salary Survey Results* performed by William M. Mercer,
Incorporated

Consumer Price Index Detailed Report: Data for September 1994 by the U.S. Department of
Labor, Bureau of Labor Statistics

Public Pension Plans--The State Regulatory Framework by Cynthia L. Moore, published by
the National Council on Teacher Retirement

Survey and Analysis of Salary Trends, 1994 published by the American Federation of Teachers

*Fringe Benefits for Teachers in Public Schools, 1991-1992; Part 3 of National Survey of
Fringe Benefits*, published by Educational Research Service

1993 State Employee Benefits Survey published by Workplace Economics, Inc.

1994 Comparative Study of Major Public Employee Retirement Systems published by the
Retirement Research Committee, State of Wisconsin

Employee Benefits in State and Local Governments, 1992 by the U.S. Department of Labor,
Bureau of Labor Statistics, 1994

Appendix B: Comparison of Southeastern Public Salaries to Louisiana Civil Service Salaries

Job Classification	Louisiana Civil Service Average Annual Salaries	Southeast States Average Annual Salaries	Percentage by Which Southeastern Salaries are Higher or (Lower)	Total Annual Salary Paid by Louisiana in Fiscal Year 1993-1994	Projected Annual Cost if Louisiana Paid the Average Salaries of the Southeastern States
Accountant II	\$25,776	\$25,420	(1.38%)	\$4,948,992	\$4,880,640
Accounting Specialist II	20,664	19,151	(7.32%)	8,451,576	7,832,759
Account Supervisor III	28,000	33,503	19.65%	868,000	1,038,593
Administrative Manager III	32,000	32,668	2.09%	512,000	522,688
Baker I	13,700	14,890	8.69%	465,800	506,260
Biologist: Field	20,808	25,413	22.13%	208,080	254,130
Carpenter	18,288	20,419	11.65%	2,011,680	2,246,090
Clerk II	13,860	15,393	11.06%	12,238,380	13,592,019
Communication Specialist I	18,900	25,430	34.55%	226,800	305,160
Compliance Program Officer I	30,500	30,251	(0.82%)	152,500	151,255
Cook I	12,888	14,890	15.53%	3,879,288	4,481,890
Corrections Lieutenant	25,404	24,721	(2.69%)	7,951,452	7,737,673
Corrections Sergeant	19,860	19,422	(2.21%)	67,047,360	65,568,672
Corrections Warden IV	83,124	52,256	(37.13%)	83,124	52,256
Custodian I	11,016	13,251	20.29%	19,553,400	23,520,525
Dental Hygienist I	23,640	24,001	1.53%	70,920	72,003

Job Classification	Louisiana Civil Service Average Annual Salaries	Southeast States Average Annual Salaries	Percentage by Which Southeastern Salaries are Higher or (Lower)	Total Annual Salary Paid by Louisiana in Fiscal Year 1993-1994	Projected Annual Cost if Louisiana Paid the Average Salaries of the Southeastern States
Dentist	\$43,272	\$59,019	36.39%	\$129,816	\$177,057
Dietitian Manager II	33,900	31,517	(7.03%)	33,900	31,517
Disability Determination Examiner II	25,464	23,479	(7.80%)	3,539,496	3,263,581
District Engineer	35,800	37,106	3.65%	572,800	593,696
District Engineer Manager II	56,600	56,506	(0.17%)	1,132,000	1,130,120
Electronic Technician	23,076	22,819	(1.11%)	992,268	981,217
Employment Security Officer II	24,000	21,972	(8.45%)	6,840,000	6,262,020
Employment Security Counselor	31,968	25,078	(21.55%)	543,456	426,326
Engineer in Training I	25,860	27,872	7.78%	1,189,560	1,282,112
Environmental Quality Specialist I	23,300	23,678	1.62%	2,539,700	2,580,902
Financial and Compliance Auditor II	30,100	28,505	(5.30%)	602,000	570,100
Financial Examiner I	21,200	26,349	24.29%	254,400	316,188
Financial Examiner Regional Manager	49,300	47,482	(3.69%)	295,800	284,892
Fisheries Specialist I	14,200	21,256	49.69%	28,400	42,512
Food Service Worker General	10,692	12,901	20.66%	6,671,808	8,050,224

Job Classification	Louisiana Civil Service Average Annual Salaries	Southeast States Average Annual Salaries	Percentage by Which Southeastern Salaries are Higher or (Lower)	Total Annual Salary Paid by Louisiana in Fiscal Year 1993-1994	Projected Annual Cost if Louisiana Paid the Average Salaries of the Southeastern States
Forensic Scientist II	\$29,568	\$30,311	2.51%	\$354,816	\$363,732
Forestry Parish Supervisor	31,704	26,080	(17.74%)	697,488	573,760
Game Senior Field Biologist	25,600	25,413	(0.73%)	102,400	101,652
Geologist II	31,644	27,034	(14.57%)	632,880	540,680
Health Lab Director	72,600	46,954	(35.33%)	72,600	46,954
Human Resource Analyst II	25,100	24,344	(3.01%)	1,907,600	1,850,144
Human Resource Director II	37,800	40,183	6.30%	302,400	321,464
Information System Application Project Leader	43,100	40,893	(5.12%)	2,629,100	2,494,473
Information System Application Programmer II	25,584	25,007	(2.26%)	1,509,456	1,475,413
Information System Equipment Operator II	17,928	20,716	15.55%	986,040	1,139,380
Information System Software Support Specialist III	42,420	43,137	1.69%	1,187,760	1,207,836
Insurance Compliance Examiner Specialist I	17,200	25,213	46.59%	34,400	50,426
Laboratory Technician II	20,688	27,537	33.11%	827,520	1,101,480
Librarian II	25,700	25,926	0.88%	179,900	181,482

Job Classification	Louisiana Civil Service Average Annual Salaries	Southeast States Average Annual Salaries	Percentage by Which Southeastern Salaries are Higher or (Lower)	Total Annual Salary Paid by Louisiana in Fiscal Year 1993-1994	Projected Annual Cost if Louisiana Paid the Average Salaries of the Southeastern States
Medical Records Administrator II	\$32,200	\$29,218	(9.26%)	\$225,400	\$204,526
Mobile Equipment Operator Light	12,700	15,820	24.57%	812,800	1,012,480
Nutritionist Clinical	26,400	24,290	(7.99%)	237,600	218,610
Office Manager II	20,976	22,703	8.23%	4,279,104	4,631,412
Park Ranger II	17,900	26,312	46.99%	572,800	841,984
Pharmacist - Staff	38,316	40,999	7.00%	3,869,916	4,140,899
Pharmacy Director II	50,900	47,817	(6.06%)	356,300	334,719
Police Officer II	19,100	25,256	32.23%	3,858,200	5,101,712
Probation/Parole Agent Supervisor - Adult	36,444	33,262	(8.73%)	2,186,640	1,995,720
Probation/Parole Agent - Adult	22,908	24,201	5.64%	6,208,068	6,558,471
Professional Chemist II	27,564	28,704	4.14%	82,692	86,112
Professional Chemist III	32,400	36,438	12.46%	162,000	182,190
Recreation Area Manager II	29,868	31,081	4.06%	149,340	155,405
Registered Dietitian	26,736	27,423	2.57%	320,832	329,076
Revenue Account Auditor II	27,204	27,463	0.95%	1,469,016	1,483,002

Job Classification	Louisiana Civil Service Average Annual Salaries	Southeast States Average Annual Salaries	Percentage by Which Southeastern Salaries are Higher or (Lower)	Total Annual Salary Paid by Louisiana in Fiscal Year 1993-1994	Projected Annual Cost if Louisiana Paid the Average Salaries of the Southeastern States
Sanitarian Administrator	\$50,028	\$37,925	(24.19%)	\$50,028	\$37,925
Sanitarian in Training	18,500	25,306	36.79%	259,000	354,284
Secretary II	18,156	18,765	3.35%	25,835,988	26,702,595
Staff Attorney	38,340	34,202	(10.79%)	3,642,300	3,249,190
State Budget Analyst II	39,500	31,490	(20.28%)	39,500	31,490
State Department Director of Planning and Budget	68,600	57,065	(16.81%)	137,200	114,130
State Economist	55,800	43,404	(22.22%)	55,800	43,404
Unemployment Insurance Chief of Benefits	46,200	49,146	6.38%	46,200	49,146
Wildlife Management Specialist	15,600	21,256	36.26%	140,400	191,304
Warehouse Manager	28,000	23,380	(16.50%)	56,000	46,760
Wildlife Enforcement Agent	20,000	27,664	38.32%	220,000	304,304
Total				\$220,732,240	\$228,604,803
Average					3.57%

Appendix C: Comparison of Southeastern Public Salary Ranges to Louisiana Civil Service Salary Ranges

Job Classification	Number of Employees in Louisiana	Louisiana Civil Service Salary Ranges		Southeastern Region Average Salary Ranges			Percentage by Which Southeastern Salaries Higher or (Lower) at Midpoint	
		Minimum	Midpoint	Maximum	Minimum	Midpoint		Maximum
Accountant II	192	\$1,609	\$2,060	\$2,511	\$1,752	\$2,258	\$2,763	9.61%
Accounting Specialist II	409	1,314	1,682	2,050	1,310	1,685	2,059	0.18%
Account Supervisor III	31	1,725	2,204	2,683	2,145	2,737	3,330	24.18%
Administrative Manager III	16	1,975	2,525	3,075	2,080	2,702	3,324	7.01%
Baker I	34	817	954	1,092	1,023	1,290	1,556	35.22%
Biologist: Field	10	1,609	2,060	2,511	1,838	2,351	2,863	14.13%
Carpenter	110	1,228	1,572	1,916	1,361	1,751	2,140	11.39%
Clerk II	883	936	1,199	1,461	996	1,259	1,523	5.00%
Communication Specialist I	12	1,508	1,929	2,350	1,641	2,118	2,594	9.80%
Compliance Program Officer I	5	1,725	2,204	2,683	2,012	2,629	3,247	19.28%
Cook I	301	818	1,048	1,277	1,023	1,290	1,556	23.09%
Corrections Lieutenant	313	1,504	1,926	2,347	1,632	2,101	2,569	9.09%
Corrections Sergeant	3,376	1,314	1,682	2,050	1,410	1,812	2,214	7.73%
Corrections Warden IV	1	4,440	5,684	6,927	3,374	4,299	5,224	(24.37%)
Custodian I	1,775	737	927	1,116	897	1,156	1,415	24.70%
Dental Hygienist I	3	1,393	1,820	2,246	1,547	2,000	2,453	9.89%
Dentist	3	2,931	3,828	4,725	3,672	4,558	5,445	19.07%
Dietitian Manager II	1	1,842	2,358	2,875	2,099	2,688	3,362	13.99%
Disability Determination Examiner II	139	1,609	2,060	2,511	1,644	2,133	2,622	3.54%
District Engineer	16	2,108	2,700	3,292	2,514	3,221	3,929	19.30%
District Engineer Manager II	20	3,167	4,054	4,942	3,583	4,630	5,677	14.21%
Electronic Technician	43	1,504	1,926	2,347	1,500	1,934	2,368	0.42%

Job Classification	Number of Employees in Louisiana	Louisiana Civil Service Salary Ranges			Southeastern Region Average Salary Ranges			Percentage by Which Southeastern Salaries Higher or (Lower) at Midpoint
		Minimum	Midpoint	Maximum	Minimum	Midpoint	Maximum	
Employment Security Officer II	285	\$1,508	\$1,929	\$2,350	\$1,555	\$2,002	\$2,449	3.78%
Employment Security Counselor	17	1,722	2,205	2,687	1,692	2,151	2,610	(2.45%)
Engineer in Training I	46	1,842	2,358	2,874	2,119	2,672	3,224	13.32%
Environmental Quality Specialist I	109	1,725	2,400	3,075	1,749	2,255	2,761	(6.04%)
Financial and Compliance Auditor II	20	1,842	2,358	2,875	1,973	2,543	3,114	7.85%
Financial Examiner I	12	1,725	2,204	2,683	2,070	2,609	3,149	18.38%
Financial Examiner Regional Manager	6	2,767	3,542	4,317	3,268	3,960	4,664	11.80%
Fisheries Specialist I	2	1,075	1,375	1,675	1,420	1,795	2,170	30.55%
Food Service Worker General	624	737	927	1,116	913	1,141	1,369	23.09%
Forensic Scientist II	12	1,971	2,524	3,076	2,127	2,729	3,332	8.12%
Forestry Parish Supervisor	22	1,971	2,524	3,076	1,796	2,325	2,854	(7.88%)
Game Senior Field Biologist	4	1,725	2,204	2,683	1,838	2,351	2,863	6.67%
Geologist II	20	2,415	3,092	3,768	1,910	2,465	3,021	(20.28%)
Health Lab Director	1	3,875	4,963	6,050	3,397	4,334	5,271	(12.67%)
Human Resource Analyst II	76	1,608	2,058	2,508	1,832	2,324	2,816	12.93%
Human Resource Director II	8	2,258	2,892	3,525	2,584	3,338	4,092	15.42%
Information System Application Project Leader	61	2,583	3,308	4,033	2,463	3,193	3,924	(3.48%)
Information System Application Programmer II	59	1,842	2,358	2,874	1,778	2,294	2,810	(2.71%)
Information System Equipment Operator II	55	1,148	1,470	1,791	1,421	1,826	2,232	24.22%
Information System Software Support Specialist III	28	2,584	3,308	4,032	2,696	3,499	4,303	5.77%
Insurance Compliance Examiner Specialist I	2	1,408	1,800	2,192	1,800	2,276	2,752	26.44%
Laboratory Technician II	40	1,406	1,800	2,194	1,712	2,203	2,694	22.39%
Librarian II	7	1,508	1,929	2,350	1,684	2,169	2,655	12.44%
Medical Records Administrator II	7	2,092	2,667	3,242	1,899	2,458	3,017	(7.84%)
Mobile Equipment Operator Light	64	817	1,046	1,275	1,046	1,320	1,593	26.20%
Nutritionist Clinical	9	1,592	2,079	2,567	1,779	2,290	2,801	10.15%
Office Manager II	204	1,228	1,572	1,916	1,448	1,863	2,279	18.51%
Park Ranger II	32	1,225	1,571	1,917	1,437	1,847	2,257	17.57%

Appendix D: History of Salary Increases

State	1986	1987	1988	1989	1990	1991	1992	1993	1994	Cumulative Salary Increase
Arkansas	3.00%	0.00%	0.00%	4.00%	2.00%	2.50%	4.00%	0.00%	0.00%	16.47%
Colorado	4.32%	1.31%	0.00%	3.82%	2.16%	4.22%	2.51%	3.22%	2.45%	26.64%
Idaho	0.00%	3.00%	2.50%	5.00%	5.30%	4.00%	1.30%	2.00%	0.00%	25.44%
Iowa	4.00%	2.00%	4.00%	3.50%	5.00%	0% or 5%	4% or 7.5%	\$650 per year	2.00%	N/A
Kansas	5.80%	2.00%	4.00%	3.00%	1.50%	0.00%	1.00%	0.50%	1.50%	20.89%
Minnesota	4.00%	3.00%	3.00%	5.00%	5.00%	2.50%	2.50%	0.00%	3.25%	31.95%
Missouri	\$720 per year	3.00%	\$360 per year	4.20%	2.00%	0.00%	0.00%	1% plus \$400 per year	1% plus \$400 per year	N/A
Montana	1.25% (\$300 min.)	1.25% (\$300 min.)	0.00%	0.00%	2.50%	\$.60/hr plus progression	\$.45/hr plus progression	unknown	0.00%	N/A

State	1986	1987	1988	1989	1990	1991	1992	1993	1994	Cumulative Salary Increase
Nebraska	3.00%	3.00%	4.00%	4.00%	4.00%	3.00%	3.00%	\$300 per year	\$500 per year	N/A
New Mexico	5.00%	1.00%	\$750 per year	4.00%	varied	1.50%	3.00%	4% (avg)	4.5% (avg)	N/A
North Dakota	4.00%	0.00%	0.00%	7.10%	0.00%	4.00%	\$480 per year	\$720 per year	3.00%	N/A
Oklahoma	0.00%	0.00%	5.00%	\$400 per year	\$1000 per year	\$420 per year	2.50%	2.5% to 5%	\$800 per year	N/A
South Dakota	varied	varied	\$436 or 2.75%	4.50%	5.00%	6.50%	6.50%	5.50%	5.50%	N/A
Texas	0.00%	0.00%	2.00%	5.00%	0.00%	0.00%	3.00%	3.00%	0.00%	13.62%
Utah	0.00%	0.00%	2.50%	2.00%	4.00%	1.70%	3.00%	2.75%	0.00%	17.03%
Wisconsin	6.00%	2.10%	2.00%	3.75%	4.25%	1.27%	4.25%	1.50%	0.00%	27.94%
Wyoming	0.00%	0.00%	\$550 per year	5.40%	3.00%	2.00%	0.00%	\$100 to \$1000	unknown	N/A

State	1986	1987	1988	1989	1990	1991	1992	1993	1994	Cumulative Salary Increase
Average Increase - Central States	2.89%	1.43%	2.00%	3.95%	3.03%	2.02%	2.70%	1.62%	0.90%	22.50%
Louisiana	0.00%	0.00%	0.00%	0.00%	4.00%	0.00%	0.00%	0.00%	0.00%	4.00%
Consumer Price Index	1.90%	3.60%	4.10%	4.80%	5.40%	4.20%	3.00%	3.00%	2.70%	37.82%

Source: Created by legislative auditor's staff using information obtained from 1994 Central States Salary and Benefits Survey.

Appendix E: UAL Contribution Requirements and Who Contributes

Because many employers that contribute to LASERS and TRSLA are funded primarily from the state's general fund, this fund has in turn been the principal source of funding for these retirement systems.

Estimated Funding Requirements for Fiscal Year 1994-1995

	Item	LASERS	TRSLA	Total
1	Payroll	\$1,597,053,170	*\$2,268,696,685	\$3,865,749,855
2	Employer Normal Cost	5.36%	7.09%	
3	Required UAL Contribution	6.81%	*10.13%	
4	Total Required Employer Contribution (2 + 3)	12.17%	**17.22%	
5	Required UAL Contribution as a Percent of Total Contribution (3 ÷ 4)	55.96%	58.83%	
6	Total Employer Contribution (1 x 4)	\$194,361,371	\$390,669,569	\$585,030,940
7	How Much Comes from General Fund	68.58%	68.32%	
8	State's Total Contribution from General Fund (6 x 7)	\$133,293,028	\$266,905,450	\$400,198,478
9	State's UAL Contribution from General Fund (5 x 8)	\$74,590,778	\$157,020,476	

* Excludes payroll for Optional Retirement Plan (ORP).

** Excludes UAL for ORP members.

Source: Created by legislative auditor's staff from data supplied by legislative actuary.

Funding for LASERS and TRSLA comes through the budgets of many different agencies or political subdivisions that employ LASERS and TRSLA members. As of June 30, 1994, the number of participating employers by entity type for these two retirement systems was as follows:

By Entity Type That Contribute to LASERS and TRSLA		
Type of Employer	LASERS	TRSLA
State Agency	113	29
Municipality	35	
Courts	48	
State Hospitals	19	
Police Juries	22	
School Boards		66
Vo-Tech Schools		51
Colleges and Universities	15	18
Other	65	31
Total	317	195

Source: Created by legislative auditor's staff from data supplied by legislative actuary.

Appendix F: UAL Amortization Under Three Types of Schedules

Act 81

The original amortization schedule adopted in 1988. Act 81 principal payments increase at 4.0 percent per year initially. After five years, the increase factor is 3.5 percent; after five more years, it is 3.0 percent; and so on. Under Act 81:

- Initial total payments lower than level dollar method, but become higher at a later date
- Interest payments higher than level dollar method
- Because initial series of payments do not meet interest charges, unpaid interest increases the remaining balance owed for several years.

Act 257

Adopted in 1992. Principal payments under Act 257 increase at 4.5 percent per year. This means that each year the payment is 4.5 percent higher than it was the previous year.

- Lowest initial payments but highest payments on the back end of schedule
- Highest interest payments of these three methods
- Because initial series of payments do not meet interest charges, unpaid interest increases the remaining balance owed for several years.

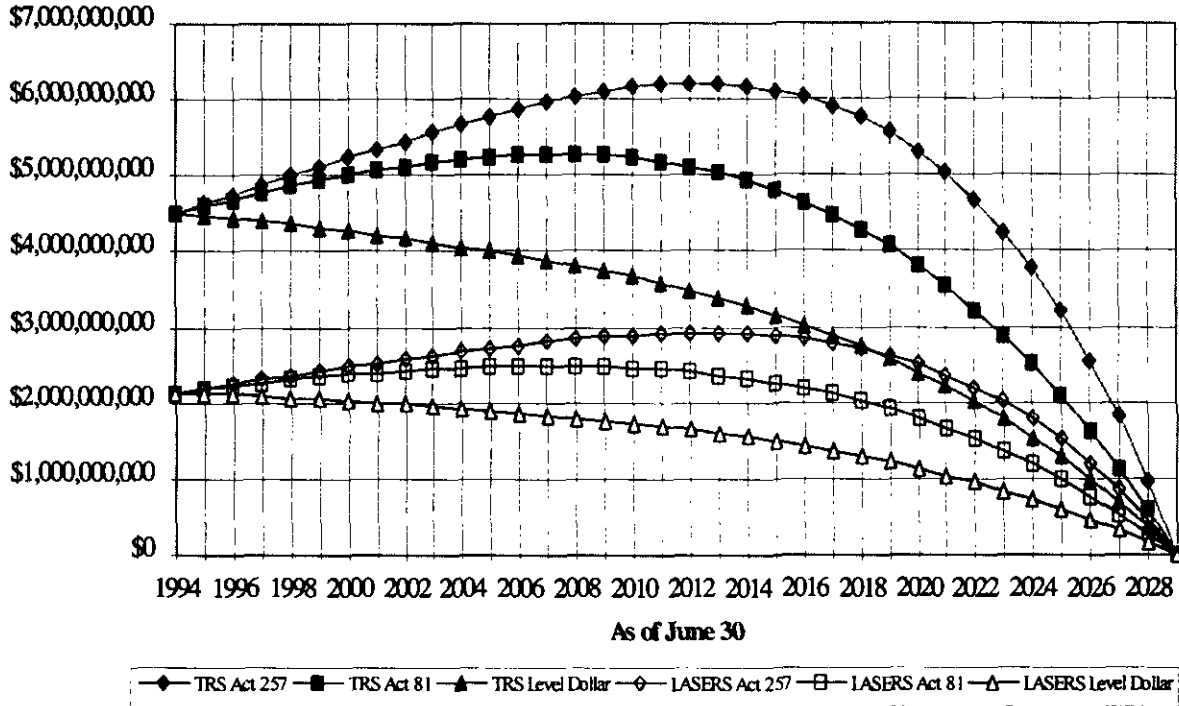
Level Dollar Payments

Fixed, like a home mortgage.

- Highest initial total payment levels
- Eventually produces lowest interest payments
- Because initial series of payments exceed interest charges, remaining balance owed steadily decreases.

Exhibit F-1 below illustrates the difference in outstanding balance using three types of schedules for LASERS and TRSLA. The outstanding balance is the amount of the UAL.

Exhibit F-1
Outstanding UAL Balance Under
Three Amortization Schedules



Source: Created by legislative actuary's staff.

Appendix G: Texaco Settlement Applied to Unfunded Accrued Liability

The 1994 mineral royalty settlement with Texaco was applied to the unfunded accrued liability of the three underfunded state systems as follows:

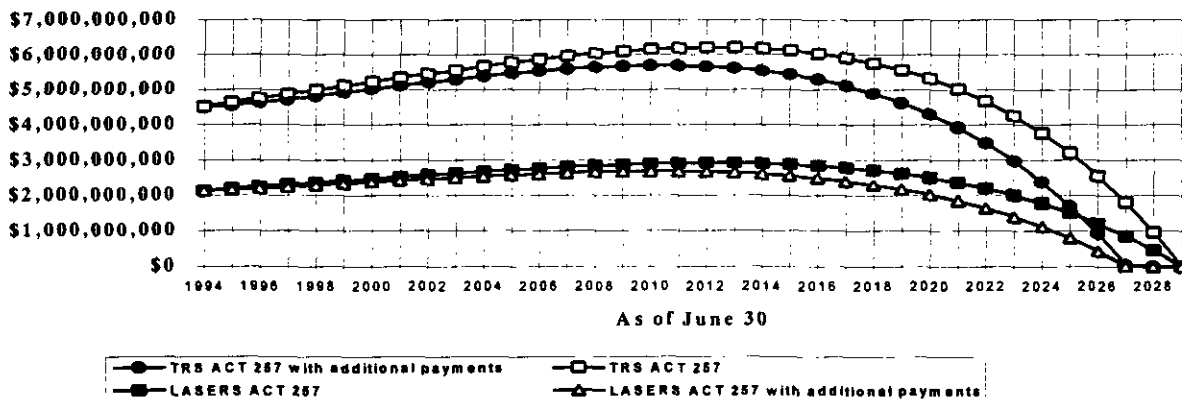
Retirement System	Amount Applied in 1994	Amount Applied in 1995	Amount Applied in 1996	TOTAL
LASERS	\$36,555,033	\$13,817,580	\$13,817,580	\$64,190,193
TRSLA	77,185,041	29,175,475	29,175,475	135,535,991
State Police	3,059,926	1,156,633	1,156,633	5,373,192
TOTAL	\$116,800,000	\$44,149,688	\$44,149,688	\$205,099,376

Source: legislative actuary

Early Payoff: As a result of the application of these settlement funds, the UAL will be paid off two years sooner than originally scheduled because:

- the additional payments were applied to principal at the beginning of the schedule; and
- no other details of the payment schedule were modified.

**Exhibit G-1
Measure of Funding Progress--UAL Balance Comparison**



Source: Created by legislative actuary's staff.

Appendix H: Standard Defined Benefit Plan--New Entrants

A. Benefits

- ♦ *Benefit Formula:* 2.5 percent x highest 5-year average salary x years of service (but not more than 100 percent of highest 5-year salary).
- ♦ *Normal Retirement:* Retirement on or after attainment of age 65.
- ♦ *Early Retirement:* Retirement on or after the attainment of age 55 and 10 years of service with benefits reduced by 0.6 percent for each of the first 60 months and by 0.3 percent for each of the next 60 months that early retirement precedes the normal retirement date.
- ♦ *Withdrawal Benefits:* Same as current plan--return of employee contributions unless employee retires after 10 or more years of service, in which case employee may leave contributions in the plan and begin receiving accrued benefit at age 65 or reduced benefit at age 55.

B. Employee Contributions

- ♦ *LASERS:* 7.5 percent of salary (unchanged from current plan for regular employees, but changed for judges and legislators).
- ♦ *TRSLA:* 7.5 percent of salary (changed from current plan).

C. Retirement Rate Assumption

AGE	MALES	FEMALES	AGE	MALES	FEMALES
55	2%	3%	63	15%	20%
56	2%	4%	64	20%	25%
57	3%	5%	65	30%	35%
58	4%	6%	66	40%	50%
59	5%	8%	67	50%	60%
60	7%	10%	68	60%	70%
61	10%	12%	69	75%	80%
62	15%	14%	70	100%	100%

D. New Entrants

- ♦ Defined as participants who have one year of service as of June 30, 1993.
- ♦ Hazardous job categories covered by LASERS (Corrections and Wildlife Agents) and School Employees Plan B not covered by new plan.

Appendix I: Current Benefits in LASERS and TRSLA

BENEFITS	LASERS	TRSLA
Retirement Benefits for Regular Members	<ul style="list-style-type: none"> • 2.5% at 10 years, age 60 • 2.5% at 25 years, age 55 • 2.5% at 30 years, any age • With actuarial reduction, 20 years any age 	<ul style="list-style-type: none"> • 2% at 20 years, any age • 2.5% at 25 years, age 55 • 2.5% at 30 years, any age • 2.5% at 20 years, age 65 • 2% at 10 years, age 60
Maximum Accrual Rates for Classes of System Members	<ul style="list-style-type: none"> • Regular Employees--2.5% • Wildlife Agents--% of FAS • Corrections Officers--2.5% • Legislators--3.5% • Judges and Court Officials--3.5% 	<ul style="list-style-type: none"> • Teachers and University Professors--2.5% • School Lunch Plan A--3% • School Lunch Plan B--2%* • Legislators--3.5% <p>* (has Social Security)</p>
Contribution Rates for Classes of System Members	<ul style="list-style-type: none"> • Regular Employees--7.5% • Wildlife Agents--8.5% • Corrections Officers--9% • Legislators--11.5% • Judges and Court Officials--11.5% 	<ul style="list-style-type: none"> • Teachers and University Professors--8% • School Lunch Plan A--9% • School Lunch Plan B--5%* <p>* (has Social Security)</p>
Disability Retirement	<ul style="list-style-type: none"> • Eligible after 10 years service • Receives 2.5% for each year of actual service 	<ul style="list-style-type: none"> • Eligible after 5 years service • Regular retirement <u>if eligible</u> • If <u>not eligible</u> for regular retirement, <u>lesser of</u>: <ul style="list-style-type: none"> • 75% of benefit payable at age 60, 2.5% per year if member had continued to work, or 50% of average compensation <li style="text-align: center;">BUT NOT LESS THAN: • Actual years of service at 2.5% <p style="text-align: center;">MINOR CHILD BENEFITS ALSO PAYABLE</p>

BENEFITS	LASERS	TRSLA
<p>Survivor Benefits</p>	<p>AFTER FIVE YEARS OF SERVICE With Minor Children</p> <ul style="list-style-type: none"> • Benefit is greater of \$300/month or 75% of average compensation • Two-thirds of benefit designated to minor children, one-third to surviving spouse • Benefits cease when no more minor children present <p>AFTER 10 YEARS OF SERVICE With Spouse</p> <ul style="list-style-type: none"> • Spouse receives 50% of average compensation, even if no minor children present <p>AFTER 20 YEARS OF SERVICE</p> <ul style="list-style-type: none"> • Member is permanently entitled to this benefit (unless retired), whether working in state service or not 	<p>AFTER FIVE YEARS OF SERVICE With Minor Children</p> <ul style="list-style-type: none"> • Spouse receives greater of \$300/month or 50% of benefit payable if member had worked until age 60 at 2.5% • Each minor child receives up to 1/2 of spousal benefit • Benefit ceases when no minor children present <p>AFTER 10 YEARS OF SERVICE With Spouse</p> <ul style="list-style-type: none"> • Spouse receives Option Two (joint and survivor) benefit at years worked, 2.5%, unless minor child benefits payable
<p>DROP</p>	<ul style="list-style-type: none"> • May participate up to 3 years if member enters within 60 days of becoming eligible 	<ul style="list-style-type: none"> • May enter when eligible to retire (except for 20 years at any age provision) • May participate up to 3 years if member enters within 60 days of becoming eligible. • If eligible to retire before 1/2/94, may participate for up to 2 years at any time after becoming eligible

BENEFITS	LASERS	TRSLA
<p>Sick and Annual Leave Conversion</p>	<ul style="list-style-type: none"> • May convert all unused sick and annual leave accumulated at time of retirement to retirement credit • Has option of being paid actuarial value instead of receiving added service credit 	<ul style="list-style-type: none"> • May convert unused sick leave to retirement credit if earned before 6/30/90 • May convert a <u>maximum</u> of one year of sick leave earned after 6/30/90 to retirement credit • Most teachers do not earn annual leave • Members who are state employees may convert unused annual leave earned after 6/30/90 to retirement credit but may need to actuarially purchase it • Annual leave earned before 6/30/90 may be converted to retirement credit for some members
<p>Source: Prepared by legislative auditor's staff from information supplied by TRSLA and the legislative actuary.</p>		

Appendix J: Survivor and Disability Comparisons

Survivor Benefits				
Employees of:	Benefits Offered to Spouse	Benefits Offered to Children	Annuity = to Flat %	Social Security
Louisiana (in LASERS and TRSLA)	Yes see Appendix X-5	Yes see Appendix X-5	Yes for LASERS, varies for TRSLA see Appendix X-5	Not covered
Other State and Local Governments (in Defined Benefit Plans)	86% have spousal benefit; 80% of these have QPSA	Difficult to determine from data, rare for plan to offer for children but Social Security covers minors	Only 8% have annuity equal to flat amount or % of earnings (like LASERS); 0.5% project service to retirement date (like TRSLA)	All but six states covered; monthly benefit payable to spouse and children
Private Sector (Medium and Large Companies, Defined Benefit Plans)	QPSA required, normally 50-100% of benefits eligible for at time of death, not payable until early retirement threshold, discounted for early retirement	Rare for plan to offer, but Social Security covers minors	Rare, only 5% of cases	Virtually ALL covered whether in defined benefit or not; monthly benefit payable to spouse and children

Source: Created by legislative auditor's staff from data supplied by M&R and the Bureau of Labor Statistics.

Death Benefits (Life Insurance)

Employees of:	Who Has It	Who Pays Cost	Flat Dollar Amount or Multiple of Salary	Typical Level Expressed as Multiple of Salary
Louisiana	32% of LASERS and TRSLA members through SEGBP (not all are eligible)	Employer and employee each pay half the stated premiums	Flat dollar amount	1.8 times earnings
Other State and Local Governments	90% of full-time employees	All but six states pay total cost	Typically flat dollar amount	1.8 times earnings
Private Sector (Medium and Large Companies)	Virtually 100%	Usually noncontributory (employer pays)	Typically fixed multiple (% of salary)	1 times earnings

Source: Created by legislative auditor's staff from data supplied by M&R and the Bureau of Labor Statistics.

Disability						
Employees of:	Who Has It	Who Pays Cost	Typical Percent of Predisability Pay Replaced	Waiting Period	Social Security	
Louisiana (in LASERS and TRSLA)	LASERS: 10 years, TRSLA 5 years before eligible (see Appendix X-5)	Employee pays portion fixed by statute, employer pays the rest	Varies with years of service (see Appendix X-5)	Immediate eligibility	Not covered	
Other State & Local Governments--Disability Retirement (in Defined Benefit Plans)	94% of participants	For 87% of pension plans, employee contributes some portion of pension plan cost	Generally, as a function of plan, may vary with years of service and/or any reduction formula	95% of those covered have immediate eligibility	All but six states covered; monthly benefit payable to spouse & children	
Other State and Local Governments (other LTD Insurance)	28% of employees	20% of covered employees pay part of the cost	68% of covered employees covered for 60-69% of pay	Normally less than 6 months	Virtually ALL covered; monthly benefit payable to spouse & children	
Private Sector Medium and Large Companies	41% of employees	When employee contribution required, generally as part of a cafeteria plan	65% of covered employees covered for 60-69% of pay	Normally 6 months		

Source: Created by performance audit staff from data supplied by M&R, the Wisconsin Retirement Research Committee and the U.S. Dept. of Labor, Bureau of Labor Statistics.

Appendix K: Deferred Retirement Option Plan (DROP)

Because the program is so new and there is only a very small experience base available, the legislative actuary cannot accurately measure how much the program costs. As a consequence, the actuary must formulate best-guess assumptions about two critical factors. These assumptions greatly influence the estimates of program costs:

- **When DROP participants would have retired, had they not participated in DROP.** This may not ever be determinable since the mere fact of being in the program may influence a participant's decision regarding when to retire. Only the accumulation of further experience in DROP will provide a basis on which to estimate it.
- **What salary increases DROP participants would have received.** Average salary increases in the final years of employment are measurable. However, it is unlikely that a participant who anticipates a significant salary increase would want to participate in DROP. Doing so would freeze his or her salary for the purpose of retirement benefit calculation. Therefore, the population that participates in DROP might contain a greater number of employees who would have received less than the average increase.

To illustrate the consequences of different factors, the legislative actuary created four scenarios in which some assumptions are held constant and others are changed. One factor is a **window**. In this study, a window is a limited time period in which a prospective retiree can participate in the DROP program. In both LASERS and TRSLA, an employee's time of participation in DROP is now limited by statute to three years. This period starts within 60 days after the member first becomes eligible. Certain inferences can be drawn from each scenario.

1. ***Eligibility at 55, no salary increases, certain retirement at 60, 31 years of service.***
This scenario represents a relatively young potential retiree who would not have received a salary increase and would have retired at 60. Because the employee was not going to receive a salary increase, the system receives no benefit from freezing his or her salary. The liability is measured out until the age this member will retire--age 60. Consequently, the DROP benefit represents a cost to the system, regardless of the entry age.

2. ***Eligibility at 55, 4.25% salary increases, certain retirement at 60, 31 years of service.*** This scenario represents a relatively young potential retiree who would have received a salary increase and would have retired at 60. Because the employee was going to receive a salary increase, the system does receive a benefit from freezing his or her salary. Again, the system's liability is measured out until age 60. In this scenario, there are savings associated with a three-year window DROP. A two-year DROP produces savings if the participant enters within the first year of eligibility. A three-year DROP without a window is costly regardless of the entry age.
3. ***Eligibility at 55, 4.25% salary increases, certain retirement at 65, 31 years of service.*** This scenario represents a relatively young potential retiree who would have received a salary increase and would have retired at 65. Because the employee was going to receive a salary increase, the system does receive a benefit from freezing his or her salary. The system's liability is measured out until age 65, rather than age 60. In this scenario, there are savings associated with a three-year window DROP. A two-year DROP produces savings if the participant enters within the first four-and-one-half years of eligibility. A three-year DROP without a window is costly regardless of the entry age, except for slight savings if entered immediately upon eligibility. The major differences in this scenario and the one immediately preceding it are the savings are greater and are attainable for a longer period of time. This shows that the later the age at which one would have retired and the earlier the entry, the greater the advantage to the system from the program.
4. ***Eligibility at 66, 4.25% salary increases, certain retirement at 70, 11 years of service.*** This scenario represents an older potential retiree who would have received a salary increase and who would have retired at 70. Because the employee was going to receive a salary increase, the system does receive a benefit from freezing his or her salary. The system's liability is measured out until age 70. In this scenario, there are no savings to the system associated with the three-year window DROP. A two-year DROP without a window produces savings if the participant enters within the first year of eligibility. A three-year DROP without a window is costly regardless of the entry age. The major difference in this scenario and the one immediately preceding it is the savings are *less* for older, short-service members, all other factors being equal.

Appendix L

Analysis of State Employees Group Benefits Program Preferred Provider Organization

Legislative Auditor for the State of Louisiana:
Analysis of State Employees Group Benefit Program
Preferred Provider Organization

February 27, 1995

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Legislative Auditor for the State of Louisiana:
Analysis of State Employees Group Benefit Plan
Preferred Provider Organization

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I. Introduction

Milliman & Robertson, Inc. was retained by the Legislative Auditor for the State of Louisiana and the Select Council on Revenues and Expenditures in Louisiana's Future (SECURE) to assist the Legislative Auditor in analyzing issues related to employee benefits based on the Phase I audit of Personnel and Benefits conducted for SECURE.

Relating to the medical plan, the SECURE report recommended that the State Employees Group Benefit Program (SEGBP) should increase the disincentives for members using non-PPO providers, and should reduce the PPO fee differential, in order to *maximize* the PPO's effectiveness. This recommendation was based on a finding that increasing effectiveness of the PPO will lower the cost of benefits to SEGBP. The report also recommended an increase in the employee cost sharing provisions (out-of-pocket maximums) of the medical plan. One of our tasks was to review the cost effectiveness of using a PPO (Preferred Provider Organization) in conjunction with plan design incentives to use that network, and to determine the potential cost impact on SEGBP of changing the cost sharing provisions of the plan. In this report we describe our work and present our results.

Current Medical Plan

The SEGBP currently offers a PPO network which reimburses participants for 90% of eligible charges incurred at network providers. The PPO is not geographically accessible to all participants, however. When the network is accessible, the participant has the option of using a non-PPO provider, in which case eligible charges are reimbursed at 70%. If the PPO network is not accessible, eligible charges are reimbursed at 80%. A \$300 deductible applies to each enrollee, up to a maximum of three deductibles per family. The coinsurance applies to the first \$5,000 of eligible charges, after which the plan pays 100%, which results in an \$800 out-of-pocket maximum if all charges are incurred within the PPO network and an \$1,800 out-of-pocket maximum if all charges are incurred outside the PPO network..

A separate \$200 deductible applies to mental health/substance abuse benefits. Mental health/substance abuse (MH/SA) charges must be preapproved to be eligible, and then are reimbursed at 80% until \$5,000 in eligible charges are incurred, and at 100% thereafter. The SEGBP purchases MH/SA services from a MH/SA provider on a prepayment basis.

A separate \$100 deductible applies to prescription drugs, with no OOP (out-of-pocket) maximum.

Discounted reimbursement rates have been negotiated with the PPO providers and non-PPO physicians' charges are limited to a maximum fee schedule.

Approach to Project

The first step of our analysis is to measure the cost differential between PPO and non-PPO providers and the overall impact on SEGBP plan costs, recognizing the different benefit payments, of having participants use PPO providers instead of non-PPO providers. Our next step is to review the PPO network for its accessibility to the SEGBP plan participants.

We then consider the impact on SEGBP's plan costs and participant out-of-pocket costs of some plan design alternatives. We calculate the cost impact to SEGBP of changing to various deductible amounts, coinsurance percentages, and out-of-pocket maximums. It is beyond the scope of this report to consider additional ways of controlling SEGBP's plan costs, such as with improved healthcare management techniques.

In Section II we go into more detail with respect to our technical approach to analyzing the cost impact on SEGBP of the SECURE recommendations. Some of the key actuarial assumptions we made in our analysis are discussed in Section III. In Section IV we present the results of our analysis, note some key observations, and draw some conclusions. Our recommendations are included in Section V.

II. Approach to Analysis

Provider Reimbursement

The cost differential between PPO and non-PPO providers is determined by analyzing the PPO's hospital per diem schedule and the physician maximum fee schedule. We compared these reimbursement schedules to community average charge levels and recognized that eligible charges for non-PPO professional services are subject to the physician maximum fee schedule and charges for PPO physicians are subject to a maximum of 75% of the fee schedule.

Actuarial Cost Models

We developed actuarial cost models to determine a budget of expenses for each plan option, (PPO and non-PPO), assuming 100% participation in each. The cost models (see Exhibits A & B) present utilization rates and average charges for hospital, physician and other medical services covered by the plan. The models then use the utilization rates and average charges to calculate PMPM (per member per month) costs. We used Milliman & Robertson's proprietary databases, the *Milliman & Robertson Health Cost Guidelines* and the *Milliman & Robertson Healthcare Management Guidelines*, as the sources for the utilization and average charge assumptions that underlie the cost models. Appropriate adjustments are made to reflect the demographic composition of the SEGBP participants, geographical cost differences, negotiated reimbursement rates for the PPO providers, anticipated utilization management by the PPO providers, and actual plan claims experience.

These adjustments were input into the actuarial cost model to arrive at PMPM costs separately for the PPO option (Exhibit A) and non-PPO option (Exhibit B). After completing the PPO and non-PPO actuarial cost models, we calculated aggregate PMPM claim costs by weighting the PPO and non-PPO plan costs to reflect the current usage of the PPO. Based on the utilization of PPO hospitals compared to non-PPO hospitals, using number of admissions and days, we estimated that the current PPO usage (for hospital and professional services) is about 60% in-network, and 40% out-of-network (see Exhibit C).

We later adjusted the actuarial cost models for SEGBP's current benefit plan to develop costs for plans with different benefit provisions, including varying deductibles, coinsurance provisions, and out-of-pocket maximums. These alternative cost models enable us to see the impact of benefit plan changes on the costs to both SEGBP and the participants. The resulting cost impacts are shown in Exhibits D, E, and F.

III. Actuarial Assumptions

The specific utilization and average charge assumptions are shown by type of service in the actuarial cost models in Exhibits A and B. In this section we describe the rationale for our key assumptions.

Physician Charges

We were provided with a physician fee schedule (by CPT code) which represented the maximum allowed charges by non-PPO network physicians. We used our fee schedule analysis system to compare the aggregate charge level under the fee schedule to undiscounted community average charges for similar services in Louisiana. The result of this comparison is shown in Exhibit G. Although the SEGBP's maximum physician fee schedule appears to be about 15% higher than community average charges, the fee schedule will still affect some relatively high-charging physicians who will have their charges reduced to the maximum level. We expect that having a maximum fee level which is probably in the range of the 60th to 70th percentile of charges (which means 60% to 70% of physicians normally charge less than the fee schedule) will result in the average non-PPO physician charges for the SEGBP plan being somewhat less than community average. We have estimated this reduction in average charges to be 4.7%.

The PPO physicians have agreed to accept fees that are 25% less than the fee schedule. Our analysis (also shown in Exhibit G) suggests that this lower maximum fee level will be about 14% below community average charges. Recognizing that the plan will pay the lesser of actual charges or the maximum fee, we have estimated that the reduction in average charges, from the undiscounted community average, will be 15%.

Hospital Charges

We were supplied with a listing of the negotiated per diem charges for all hospitals in the PPO network. The average hospital per diem was calculated by taking the average of each hospital's per diem charge weighted by the number of days spent in each hospital during 1993. We assumed that inpatient days were split 90% for normal inpatient care and 10% for intensive care when a hospital had a separate per diem for each. A negotiated discount of 15% to 20% applies when using a PPO hospital for outpatient services. Area adjustment factors specific to the enrollment of the SEGBP participants were calculated from area factors determined by the Milliman & Robertson database. The enrollment distribution of the State's SEGBP participants as of July 14, 1994 is shown in Exhibit H.

The calculated SEGBP average hospital per diem rate of \$1,023 was compared to the undiscounted community average hospital per diem charge of \$1,720 in 1994. Thus, the SEGBP appears to enjoy a significant hospital savings of almost 40%, which is reflected in the cost model. Furthermore, the effective discount will increase in the future if the per diem schedule remains constant while hospitals' billed charges continue to increase.

Hospital Utilization

When a plan member anticipates being admitted into a hospital, he or she must obtain preadmission certification and, after admission, be subject to continued stay review. Significant penalties up to \$2,000 are assessed by the plan for not complying with the utilization review process. This hospital utilization review applies to admissions to both PPO and non-PPO hospitals and, therefore, we have assumed that utilization of hospital services will be similar within and outside of the PPO.

Other Costs

For prescription drug costs we have recognized that PPO providers have agreed to a discount of 15% off of the average wholesale price, plus a \$2.50 dispensing fee and that reimbursement will be limited to generic drug prices when generic drugs are available. We assumed generic drugs will be available 50% of the time. Mental health/substance abuse plan costs were calculated assuming that 90% of MH/SA benefits are preapproved, and considered eligible charges. All later cost model modifications assume that the drug and MH/SA benefits costs remain unchanged.

Network Coverage and Accessibility

A participant is assumed to have "access" to a primary care hospital if the hospital is in the same 3-digit zip code of their home, and access to a tertiary hospital if the hospital is either in or next to the same 3-digit zip code. Access to family practitioners, obstetricians, and pediatricians are determined by calculating the number of physicians per employee. If there is more than one family practice physician per 500 employees, then we assume there is sufficient access for the employees in that zip code. Similarly, more than one obstetrician and one pediatrician per 2,000 employees implies access to the PPO network.

Following these guidelines, we calculate that over 97% of the participants have access to PPO primary care hospitals and PPO tertiary care hospitals. Also, 97% of the participants have access to family practices, but this falls to 88% for access to an obstetrician, and 80% for access to a pediatrician.

These relatively high percentages imply that accessibility to PPO providers is not a significant restriction on the PPO participation rate, which we estimate to be 60%. To the extent that the plan members are getting their services from non-PPO providers, that seems to be a matter of choice, not necessity. Therefore, it should be possible to increase the PPO participation rate, perhaps to something in the range of 80% to 85% (which seems to be the level at which PPO participation in most plans tops out), through increasing the financial incentives in the benefit plan to use PPO providers and educating the employees on the availability of network providers and the financial benefit to them of using the PPO. However, as we will discuss in the next section, an increased PPO participation rate would likely result in only a modest cost reduction to the SEGBP, although the participants who switched to PPO providers would benefit significantly in lower out-of-pocket costs.

IV. Results, Observations, and Conclusions

As we see in the table below, the total health care costs (assuming 100% participation) in the PPO network is estimated to be \$162.48 per member per month (where “member” is an employee, spouse, or child). Of this amount, employees pay \$32.51 in the form of deductibles and coinsurance payments. The remaining cost of \$129.97 is paid by SEGBP. These cost numbers come from the actuarial cost models we developed for the SEGBP plan (Exhibits A and B).

The second line of the table shows the total costs if we assume that all services were provided outside of the PPO network, even though PPO providers were accessible. The non-PPO's total plan cost is \$203.38, of which \$143.60 is paid by the SEGBP, and the remaining \$59.78 is assumed by the participant in the form of cost sharing.

	Medical Plan Costs (PMPM)		
	Total	SEGBP's Share	Participant's Share
PPO	\$162.48	\$129.97	\$32.51
Non-PPO	\$203.38	\$143.60	\$59.78

We estimate PPO network claim costs (SEGBP's share) are 9% lower than the non-PPO costs. The higher coinsurance provision in the PPO plan of 90% is more than offset by the charge discounts negotiated with the PPO providers.

To calculate the estimated per member per month cost to the SEGBP with both PPO and non-PPO options combined, we weight the respective claim costs according to current network participation (assumed to be 60%). The calculation is as follows:

$$(60\% \times \$129.97) + (40\% \times \$143.60) = \$135.42$$

Participants may also be subject to a certain amount of balance billing on the part of any non-PPO physicians who do not accept assignment who have had their charges capped by the fee schedule for benefit determination. However, since we have no information on the extent to which balance billing is occurring, we have ignored this additional form of participant cost sharing in our analysis.

Cost Effectiveness of Plan Design Changes

We modified our cost models to reflect possible changes in the plan's deductible, coinsurance percentages, and out-of-pocket maximums. By comparing these modified cost models to the original cost models for the current SEGBP plan we can estimate the cost impact on SEGBP (and the participants) of making these plan changes.

Deductible

We estimated the cost impact to SEGBP and the participants of increasing and decreasing the deductible from the current level of \$300. In Exhibit D we compare values for the current deductible of \$300 to test deductibles of \$200, \$500 and \$750. The deductible scenarios were calculated assuming the current PPO network participation remains at the same 60%. In Exhibit D, we find a cost savings to the participants of close to 8% when the deductible is lowered to \$200.

When the deductible increases to \$500 and \$750, the participants have an increase to their cost share of 12% and 23%, respectively. However, SEGBP gets a savings of 5% with a \$500 deductible, and double that savings when the deductible is at \$750.

Coinsurance

We also estimated the cost impact to SEGBP and the participants of changing the plan's coinsurance percentages from the current coinsurance reimbursement rates of 90% for PPO services and 70% for non-PPO services. PMPM costs were calculated for other scenarios of coinsurance percentages such as 90/60 (90% PPO reimbursement/60% non-PPO reimbursement), 80/60, 80/50, and 70/50 (see Exhibit E). We assumed 60% PPO participation in plans with a 20% coinsurance differential (PPO vs. non-PPO), and 70% PPO participation in plans with a 30% differential.

We estimate a 13.5% savings to SEGBP when coinsurance percentages drop to 80% PPO and 60% non-PPO. This savings doubles to about 27% when the coinsurance percentages fall even further to 70% PPO and 50% non-PPO. However, the cost impact to the participants is dramatic; in the 80/60 scenario, the participant cost share jumps by 37%, and by almost 74% in the 70/50 scenario.

We estimated the cost impact for two more scenarios: the 90/60 scenario and the 80/50 scenario have a coinsurance spread of 30%. As a result, we assumed the PPO participation rate increases to 70%. SEGBP will save almost 6% in the 90/60 scenario, and almost 19% in the 80/50 scenario. Participants, on the other hand, will see their costs increase by over 6% in the 90/60 scenario and 40% in the 80/50 scenario.

Out-of-Pocket Maximums

Exhibit F displays a grid showing various OOP maximums for both PPO and non-PPO networks. These are calculated under four scenarios of network participation. Scenario 1 takes the current network participation rate of 60%, while scenario 2 has an increased PPO participation rate of 70%. Scenario 3 moves up to 80% network participation and scenario 4 goes as high as 85%. Pages 1 and 2 of Exhibit F show the PMPM amount payable by the SEGBP, while Pages 3 and 4 show the PMPM amount assumed by the participant. Pages 5 and 6 show the percentage of total healthcare costs that are paid by each of SEGBP and the participants. Pages 7 and 8 show the change in the SEGBP's and participant's share of costs from changing the PPO and non-PPO out-of-pocket maximums.

For example, under the current PPO network distribution (Scenario 1), going to a \$2000 OOP maximum for PPO and to \$3000 for non-PPO results in a savings of 1.6% to the plan (page 7 of Exhibit F) and an increase in cost of 4.5% to the employees. Using the same example, we see from page 5 that increasing the OOP maximums to \$2,000/\$3,000 will increase the participant's share of total costs from 24% to 26%. Therefore, by increasing the OOP maximums, the SEGBP would save 2.3% by shifting these expenses to the participants.

Observations

1. The SEGBP plan limits allowable charges for non-PPO physician to a maximum fee schedule. It is common for health plans to limit allowable charges for non-PPO physicians to a "reasonable and customary" fee standard. However, limiting the allowable charges to a fixed fee schedule that is under the 70th percentile of fees serves to create a greater incentive to use the PPO physicians than what plan members would normally have from just the 70%/90% benefit differential because of the potential for balance billing by non-PPO physicians who do not accept assignment.
2. The estimated average PPO hospital per diem rate of \$1,023 represents a significant discount from the undiscounted community average per diem rate. SEGBP appears to be saving about 40% of inpatient charges from this discount.
3. The physician fee schedule is about 15% higher than the undiscounted community average charges. Since the fee schedule is a maximum fee schedule, and the plan will pay the lesser of the fee schedule or actual billed charges, the plan's average fees will be less than the community average. We estimate this savings to be 4.7% of non-PPO physician charges. For PPO physician charges, which are limited to the lesser of 75% of the fee schedule or actual billed charges, we estimate this savings is 15% of physician charges.
4. The PPO network is broad in number and in geographical area. It covers all major centers of employee concentration in the state and includes a full range of primary care and specialist physicians and a full range of primary, secondary, and tertiary hospital facilities.

5. Cost reductions for the SEGBP plan are possible by shifting more of the total healthcare cost to the participants by adopting higher deductibles and out-of-pocket maximums or lower coinsurance benefits. However, given the already high cost sharing for the participants in premium funding, increasing benefit cost sharing may not be the best solution for controlling the plan's costs.

Conclusions

Based on our analysis, and the observations noted above, we have arrived at the following conclusions:

1. Increasing PPO network participation may not create the significant savings anticipated in the SECURE report. The net cost to SEGBP of using PPO providers is only about 9% less than the cost for using non-PPO providers. Furthermore, it appears that since the SECURE report was completed, utilization of the PPO network has increased significantly, anyway.
2. The reasonably comparable costs (to SEGBP) of the PPO and non-PPO options indicates that the medical plan is well designed. A change in the current percentage of network usage, absent any benefit changes, will not materially alter the cost of the plan to SEGBP. However, if SEGBP creates more disincentive to use non-PPO providers by lowering the coinsurance percentage below the current 70%, then SEGBP will achieve some cost savings by shifting some plan costs to the participants who continue to use non-PPO providers.
3. It is clearly in the best financial interest of the participants to use the PPO providers. Although there is no variance in deductibles between the PPO and non-PPO options, which we would normally expect to see, the combined effect of the 20% coinsurance differential and being subject to being billed by non-PPO physicians for actual charges in excess of the plan's allowed charges should be adequate financial incentive to use the PPO network.
4. The discounts obtained from hospitals, which are implicit in the negotiated per diem payment rates, are reasonable for a PPO network, and actually may be greater discounts than we would expect given the large number of hospitals in the network and the lack of opportunity for any one hospital to significantly increase its share of the SEGBP plan patient base.
5. The physician fee schedule is of little help to SEGBP in lowering the plan's physician costs for non-PPO physicians. The fee schedule is currently set at a level well above community average fees and, therefore, we would expect most submitted charges will be unaffected by the fee schedule. However, the additional 25% discount off of the fee schedule that was agreed to by the PPO physicians results in an effective discount on physician charges of 15%, which is about the minimum discount we would expect to see in a PPO network. Many managed care networks achieve much greater discounts, such as 30% to 50%, if they have the ability to limit the number of physicians and create a bigger impact on each physician's patient base.

6. The PPO plan does not appear to have an accessibility problem. There seems to be plenty of providers, capable of delivering a broad range of services in all areas where participants reside. In fact, the network is probably too large and should be narrowed, particularly with respect to specialist physicians and hospitals, so that the SEGBP can exert more leverage on the remaining providers to achieve greater price discounts and increased healthcare management efficiency. However, our understanding is that the SEGBP is currently limited in this regard by Louisiana's "any willing provider" law.

V. Recommendations

We do not recommend modifying the plan's benefit design for the purpose of creating more incentive to use the PPO network, with the expectation of significant plan savings. The current benefit design seems fine, with adequate incentives for PPO use. There is little expected cost reduction for the SEGBP, under current provider reimbursement agreements, from increased use of the network.

The next step in creating savings for SEGBP is to develop a more efficient PPO network. This can be done by selectively tightening up the provider network so that fewer and more efficient providers remain. Also, negotiating deeper discounts from the remaining providers, and developing a strong healthcare management staff that can work with the providers to implement treatment protocols and reduce any medically unnecessary utilization will lead to a more cost efficient PPO network. We recognize that any network modifications will have to be done with the existing legislative constraints that have been placed on SEGBP and other managed care plans.

The added benefit of this strategy is that increased PPO network usage will naturally occur. As deeper discounts are negotiated and the fee schedules are further reduced, participants will have more incentive to stay in the PPO network. Otherwise, they will be reimbursed at the lower coinsurance percentage for a smaller amount, and be responsible themselves for a larger extra charge from non-PPO physicians.

Increased usage of the PPO network will, in turn, give the SEGBP more leverage with the providers to negotiate still more favorable reimbursement rates. Thus, as the cost of the PPO option drops, the SEGBP may want to re-visit the idea of increasing the coinsurance differential between the PPO and non-PPO options so as to keep the expected plan costs for the two options comparable.

Exhibit A
Actuarial Cost Model - PPO

Per Member Monthly Cost Development

	<u>Annual Frequency</u>	<u>Average Charge</u>	<u>Per Member Monthly Claim Cost</u>	<u>Per Unit Utilization Copay</u>	<u>Annual Frequency of Copay</u>	<u>Per Member Cost Sharing Value</u>	<u>Per Member Net Claim Costs</u>
HOSPITAL SERVICES							
HOSPITAL INPATIENT							
NON-MATERNITY							
Medical (w/o burns,neos,rehab)	160	1,023.92	13.65	10%	160.0	\$1.37	\$12.28
Neonates - Level II & III	31	1,023.92	2.65	10%	31.0	0.26	2.39
Rehabilitation	10.8	1,023.92	0.92	10%	10.8	0.09	0.83
Surgical (w/o transplants)	184	1,023.92	15.70	10%	184.0	1.57	14.13
Transplants	3.6	1,023.92	0.31	10%	3.6	0.03	0.28
Burns	0.9	1,023.92	0.08	10%	0.9	0.01	0.07
Psychiatric	0	0.00	0.00	0.00	0.0	0.00	0.00
Alcohol & Drug Abuse	0	0.00	0.00	0.00	0.0	0.00	0.00
Subtotal	390.30	1,023.92	33.30		390.3	3.33	29.97
MATERNITY							
Deliveries	54	1,023.92	4.61	10%	52.6	0.46	4.15
Well Newborn	54	0.00	0.00	0.00	54.0	0.00	0.00
Non-Deliveries	14	1,023.92	1.19	10%	13.6	0.12	1.07
Subtotal	68.00	1,023.92	5.80		66.2	0.58	5.22
Extended Care Facility / SNF	9	344.60	0.26	20%	9.0	0.05	0.21
Hospital IP Subtotal	467.30	1,010.84	39.36		465.5	3.96	35.40
HOSPITAL OUTPATIENT							
Emergency Room	348	150.85	4.37	\$100.00/10%	295.8	2.66	1.71
Surgery	109	1,120.20	10.18	10%	109.0	1.02	9.16
Radiology	203	277.63	4.70	10%	203.0	0.47	4.23
Pathology	221	89.96	1.66	10%	221.0	0.17	1.49
Other	304	84.36	2.14	10%	304.0	0.21	1.93
Maternity Non-Deliveries	7	422.26	0.25	10%	7.0	0.02	0.23
Hospital OP Subtotal	1,192.00	234.43	23.29		1,139.8	4.55	18.74
Hospital Total	1,659.30	453.08	62.65		1,605.3	8.51	54.14
PHYSICIAN SERVICES							
INPATIENT SURGERY							
Primary Surgeon	72	1,484.45	8.91	10%	72.0	0.89	8.02
Assistant Surgeon	10	559.84	0.47	10%	10.0	0.05	0.42
Anesthesia	46	569.23	2.18	10%	46.0	0.22	1.96
IP Surgery Subtotal (1)	82.00	1,371.69	9.37		82.0	0.94	8.43
MATERNITY							
Normal Deliveries	15	2,307.30	2.88	10%	15.0	0.29	2.59
Cesarean Deliveries	6	2,902.98	1.45	10%	6.0	0.15	1.30
Non-Deliveries	13	494.43	0.54	10%	13.0	0.05	0.49
Maternity Subtotal	34.00	1,719.26	4.87		34.0	0.49	4.38
OUTPATIENT SURGERY							
OP Surgical Center	200	512.80	8.55	10%	200.0	0.85	7.70
Office	272	155.82	3.53	10%	272.0	0.35	3.18
Anesthesia	63	326.84	1.72	10%	63.0	0.17	1.55
OP Surgery Subtotal (1)	472.00	307.08	12.08		472.0	1.20	10.88
Surgery Subtotal (1)	554.00	464.66	21.45		554.0	2.14	19.31
Anesthesia Subtotal	109.00	429.13	3.90		109.0	0.39	3.51
INPATIENT VISITS							
Hospital Visits	423	83.43	2.94	10%	423.0	0.29	2.65
Extended Care Visits	6	66.21	0.03	10%	6.0	0.00	0.03
Critical Care Visits	19	122.26	0.19	10%	19.0	0.02	0.17
IP Visits Subtotal	448.00	84.85	3.17		448.0	0.31	2.86

Exhibit A
Actuarial Cost Model - PPO

Per Member Monthly Cost Development

	Annual Frequency	Average Charge	Per Member Monthly Claim Cost	Per Unit Utilization Copay	Annual Frequency of Copay	Per Member Cost Sharing Value	Per Member Net Claim Costs	
OFFICE VISITS & MISCELLANEOUS								
Office Visits	3,895	44.71	14.51	10%	3,895.0	1.45	13.06	
Home Visits	1	88.32	0.01	10%	1.0	0.00	0.01	
Therapeutic Injections	141	19.16	0.23	10%	141.0	0.02	0.21	
Allergy Testing	29	72.34	0.17	10%	29.0	0.02	0.15	
Allergy Immunotherapy	276	21.75	0.50	10%	276.0	0.05	0.45	
Diagnostic Testing	272	40.25	0.91	10%	272.0	0.09	0.82	
Immunizations	0	0.00	0.00	10%	0.0	0.00	0.00	
Well Baby Exams	147	35.00	0.43	10%	147.0	0.04	0.39	
Vision Exams	0	0.00	0.00	10%	0.0	0.00	0.00	
Speech Exams/Therapy	4	88.29	0.03	10%	4.0	0.00	0.03	
Hearing Exams	0	0.00	0.00	10%	0.0	0.00	0.00	
Physical Exams	236	78.00	1.53	10%	236.0	0.15	1.38	
Outpatient Psychiatric	0	0.00	0.00	0.00	0.0	0.00	0.00	
Subtotal	5,001.00	43.97	18.32		5,001.0	1.82	16.50	
OTHER OUTPATIENT VISITS								
Emergency Room Visits	350	72.67	2.12	10%	350.0	0.21	1.91	
Consults	103	130.85	1.12	10%	103.0	0.11	1.01	
Physical Medicine	322	41.03	1.10	10%	322.0	0.11	0.99	
Cardiovascular	137	94.28	1.08	10%	137.0	0.11	0.97	
Dialysis	12	157.17	0.16	10%	12.0	0.02	0.14	
Subtotal	924.00	72.43	5.58		924.0	0.56	5.02	
Medicine Subtotal	6,373.00	50.97	27.07		6,373.0	2.69	24.38	
RADIOLOGY								
IP (Professional)	128	80.28	0.86	10%	128.0	0.09	0.77	
OP (Professional)	348	97.02	2.81	10%	348.0	0.28	2.53	
Office (Combined)	511	122.11	5.20	10%	511.0	0.52	4.68	
PATHOLOGY								
IP (Professional)	62	58.76	0.30	10%	62.0	0.03	0.27	
OP (Professional)	128	56.72	0.61	10%	128.0	0.06	0.55	
Office (Combined)	2,899	28.03	6.77	10%	2,899.0	0.68	6.09	
Physician Total	11,146.0	79.50	73.84		11,146.0	7.37	66.47	
OTHER								
Prescription Drugs	5,334	26.00	11.56	10%	5,334.0	1.16	10.40	
PDN/Home Health	38	262.88	0.83	10%	38.0	0.08	0.75	
Ambulance	19	371.41	0.59	10%	19.0	0.06	0.53	
Durable Medical Care	38	272.87	0.86	10%	38.0	0.09	0.77	
Prosthetics	4	674.10	0.22	10%	4.0	0.02	0.20	
Chiropractor	837	52.68	3.67	10%	837.0	0.37	3.30	
Podiatrist	69	88.19	0.51	10%	69.0	0.05	0.46	
Glasses/Contacts	0	0.00	0.00	10%	0.0	0.00	0.00	
Well Woman (mammography, etc)	78	147.00	0.96	10%	78.0	0.10	0.86	
OP Alcohol & Drug Abuse	0	0.00	0.00	0.00	0.0	0.00	0.00	
Other Subtotal	6,417.00	35.91	19.20		6,417.0	1.93	17.27	
Grand Total	19,222.30	\$97.20	\$155.69		19,168.3	\$17.81	\$137.88	
			<u>Plus Carved out MH/SA benefits (assumes 90% in-network)</u>					
			\$6.79			\$1.43	5.36	
Overall Total			\$162.48			\$19.24	\$143.24	
			Minus \$13.04 for \$300 General Deductible/Up to 3x Family					\$130.20
			Minus \$3.19 for \$100 Rx Deductible					\$127.01
			Minus \$0.15 for \$200 Mental Health/Substance Abuse Deductible					\$126.86
			Plus \$3.11 to account for Out of Pocket Maximum of \$5,000 per person					\$129.97

Exhibit B
Actuarial Cost Model - Non-PPO

Per Member Monthly Cost Development

	<u>Annual Frequency</u>	<u>Average Charge</u>	<u>Per Member Monthly Claim Cost</u>	<u>Per Unit Utilization Copay</u>	<u>Annual Frequency of Copay</u>	<u>Per Member Cost Sharing Value</u>	<u>Per Member Net Claim Costs</u>
HOSPITAL SERVICES							
HOSPITAL INPATIENT							
NON-MATERNITY							
Medical (w/o burns,neos,rehab)	160	1,685.35	22.47	\$50.00 / 30%	99.2	\$7.03	\$15.44
Neonates - Level II & III	31	1,424.30	3.68	\$50.00 / 30%	19.2	1.16	2.52
Rehabilitation	10.8	1,034.63	0.93	\$50.00 / 30%	6.7	0.30	0.63
Surgical (w/o transplants)	184	1,931.10	29.61	\$50.00 / 30%	114.0	9.22	20.39
Transplants	3.6	4,195.64	1.26	\$50.00 / 30%	2.2	0.38	0.88
Burns	0.9	3,031.21	0.23	\$50.00 / 30%	0.6	0.07	0.16
Psychiatric	0	0.00	0.00	0.00	0.0	0.00	0.00
Alcohol & Drug Abuse	0	0.00	0.00	0.00	0.0	0.00	0.00
Subtotal	390.30	1,788.72	58.18		241.9	18.16	40.02
MATERNITY							
Deliveries	54	1,042.58	4.69	\$50.00 / 30%	52.6	1.56	3.13
Well Newborn	54	0.00	0.00	0.00	54.0	0.00	0.00
Non-Deliveries	14	1,322.89	1.54	\$50.00 / 30%	13.6	0.50	1.04
Subtotal	68.00	1,100.29	6.23		66.2	2.06	4.17
Extended Care Facility / SNF	9	299.80	0.22	20%	9.0	0.04	0.18
Hospital IP Subtotal	467.30	1,659.87	64.64		317.2	20.26	44.38
HOSPITAL OUTPATIENT							
Emergency Room	348	177.47	5.15	\$100.00/30%	295.8	3.27	1.88
Surgery	109	1,317.88	11.97	30%	109.0	3.59	8.38
Radiology	203	326.63	5.53	30%	203.0	1.66	3.87
Pathology	221	105.83	1.95	30%	221.0	0.58	1.37
Other	304	99.25	2.51	30%	304.0	0.75	1.76
Maternity Non-Deliveries	7	496.78	0.29	30%	7.0	0.09	0.20
Hospital OP Subtotal	1,192.00	275.80	27.40		1,139.8	9.94	17.46
Hospital Total	1,659.30	665.59	92.03		1,457.0	30.20	61.83
PHYSICIAN SERVICES							
INPATIENT SURGERY							
Primary Surgeon	72	1,672.28	10.03	30%	72.0	3.01	7.02
Assistant Surgeon	10	630.67	0.53	30%	10.0	0.16	0.37
Anesthesia	46	641.19	2.46	30%	46.0	0.74	1.72
IP Surgery Subtotal (1)	82.00	1,545.25	10.56		82.0	3.17	7.39
MATERNITY							
Normal Deliveries	15	2,599.09	3.25	30%	15.0	0.97	2.28
Cesarean Deliveries	6	3,270.09	1.64	30%	6.0	0.49	1.15
Non-Deliveries	13	556.95	0.60	30%	13.0	0.18	0.42
Maternity Subtotal	34.00	1,936.68	5.49		34.0	1.64	3.85
OUTPATIENT SURGERY							
OP Surgical Center	200	577.69	9.63	30%	200.0	2.89	6.74
Office	272	175.54	3.98	30%	272.0	1.19	2.79
Anesthesia	63	368.16	1.93	30%	63.0	0.58	1.35
OP Surgery Subtotal (1)	472.00	345.94	13.61		472.0	4.08	9.53
Surgery Subtotal (1)	554.00	523.46	24.17		554.0	7.25	16.92
Anesthesia Subtotal	109.00	483.38	4.39		109.0	1.32	3.07
INPATIENT VISITS							
Hospital Visits	423	93.99	3.31	30%	423.0	0.99	2.32
Extended Care Visits	6	74.56	0.04	30%	6.0	0.01	0.03
Critical Care Visits	19	137.46	0.22	30%	19.0	0.07	0.15
IP Visits Subtotal	448.00	95.57	3.57		448.0	1.07	2.50

Exhibit B
Actuarial Cost Model - Non-PPO

Per Member Monthly Cost Development

	Annual Frequency	Average Charge	Per Member Monthly Claim Cost	Per Unit Utilization Copay	Annual Frequency of Copay	Per Member Cost Sharing Value	Per Member Net Claim Costs	
OFFICE VISITS & MISCELLANEOUS								
Office Visits	3,895	50.36	16.35	30%	3,895.0	4.90	11.45	
Home Visits	1	99.44	0.01	30%	1.0	0.00	0.01	
Therapeutic Injections	141	21.58	0.25	30%	141.0	0.08	0.17	
Allergy Testing	29	81.38	0.20	30%	29.0	0.06	0.14	
Allergy Immunotherapy	276	24.51	0.56	30%	276.0	0.17	0.39	
Diagnostic Testing	272	45.36	1.03	30%	272.0	0.31	0.72	
Immunizations	0	0.00	0.00	30%	0.0	0.00	0.00	
Well Baby Exams	147	35.00	0.43	30%	147.0	0.13	0.30	
Vision Exams	0	0.00	0.00	30%	0.0	0.00	0.00	
Speech Exams/Therapy	4	99.45	0.03	30%	4.0	0.01	0.02	
Hearing Exams	0	0.00	0.00	30%	0.0	0.00	0.00	
Physical Exams	236	78.00	1.53	30%	236.0	0.46	1.07	
Outpatient Psychiatric	0	0.00	0.00	0.00	0.0	0.00	0.00	
Subtotal	5,001.00	48.93	20.39		5,001.0	6.12	14.27	
OTHER OUTPATIENT VISITS								
Emergency Room Visits	350	81.80	2.39	30%	350.0	0.72	1.67	
Consults	103	147.38	1.27	30%	103.0	0.38	0.89	
Physical Medicine	322	46.22	1.24	30%	322.0	0.37	0.87	
Cardiovascular	137	106.23	1.21	30%	137.0	0.36	0.85	
Dialysis	12	176.97	0.18	30%	12.0	0.05	0.13	
Subtotal	924.00	81.57	6.28		924.0	1.88	4.40	
Medicine Subtotal	6,373.00	56.94	30.24		6,373.0	9.07	21.17	
RADIOLOGY								
IP (Professional)	128	90.46	0.96	30%	128.0	0.29	0.67	
OP (Professional)	348	109.33	3.17	30%	348.0	0.95	2.22	
Office (Combined)	511	137.61	5.86	30%	511.0	1.76	4.10	
PATHOLOGY								
IP (Professional)	62	66.21	0.34	30%	62.0	0.10	0.24	
OP (Professional)	128	63.91	0.68	30%	128.0	0.20	0.48	
Office (Combined)	2,899	31.58	7.63	30%	2,899.0	2.29	5.34	
Physician Total	11,146.0	89.29	82.93		11,146.0	24.87	58.06	
OTHER								
Prescription Drugs	5,334	31.45	13.98	30%	5,334.0	4.19	9.79	
PDN/Home Health	38	262.88	0.83	30%	38.0	0.25	0.58	
Ambulance	19	371.41	0.59	30%	19.0	0.18	0.41	
Durable Medical Care	38	272.87	0.86	30%	38.0	0.26	0.60	
Prosthetics	4	674.10	0.22	30%	4.0	0.07	0.15	
Chiropractor	837	52.68	3.67	30%	837.0	1.10	2.57	
Podiatrist	69	88.19	0.51	30%	69.0	0.15	0.36	
Glasses/Contacts	0	0.00	0.00	30%	0.0	0.00	0.00	
Well Woman (mammography, etc)	78	147.00	0.96	30%	78.0	0.29	0.67	
OP Alcohol & Drug Abuse	0	0.00	0.00	0.00	0.0	0.00	0.00	
Other Subtotal	6,417.00	40.44	21.63		6,417.0	6.49	15.14	
Grand Total	19,222.30	\$122.73	\$196.59		19,020.0	\$61.56	\$135.03	
			<u>Plus Carved out MH/SA benefits (assumes 90% in-network)</u>					
			\$6.79			\$1.43	5.36	
Overall Total			\$203.38			\$62.99	\$140.39	
			Minus \$13.45 for \$300 General Deductible/Up to 3x Family					\$126.94
			Minus \$3.19 for \$100 Rx Deductible					\$123.75
			Minus \$0.15 for \$200 Mental Health/Substance Abuse Deductible					\$123.60
			Plus \$20.00 to account for Out of Pocket Maximum of \$5,000 per person					\$143.60

Exhibit C
SEGBP Medical Plan:
Utilization Comparison for PPO and non-PPO Hospitals
During 1993

	Admits		Days	
PPO Network Hospitals	5,071	61%	22,440	57%
Out of Network Hospitals	3,196	39%	16,641	43%
Total	8,267		39,081	
PPO Network Hospitals	5,071	55%	22,440	50%
Out of Network Hospitals	3,196	30%	16,641	37%
Out of State Hospitals	926	11%	5,513	12%
Total	9,193		44,594	

Exhibit D
Cost Impact of Changing Deductibles

	Deductible		
	\$200	\$300 ⁽¹⁾	\$500
Total Plan Cost PMPM	\$179.56	\$178.84	\$177.05
Employee Share	40.07	43.42	48.69
SEGBP Share	139.49	135.42	128.36
			\$750
			\$175.44
			53.55
			121.89

	Percentage Change in Cost		
	\$200	\$300 ⁽¹⁾	\$500
Employee Share	-7.7%	0.0%	12.1%
SEGBP Share	3.0%	0.0%	-5.2%
			23.3%
			-10.0%

Note: Each of above scenarios assumes current PPO participation rate of 60%

(1) Current Deductible is \$300

Exhibit E
Cost Impact of Changing Coinsurance Reimbursement Rates

	Coinsurance Rate for PPO/non-PPO			
	90/70 ⁽¹⁾	80/60 ⁽¹⁾	70/50 ⁽¹⁾	80/50 ⁽²⁾
Total Plan Cost PMPM	\$178.84	\$176.69	\$174.55	\$174.05
Employee Share	43.42	59.59	75.33	46.29
SEGBP Share	135.42	117.11	99.22	127.76
				\$171.95
				61.95
				110.00

Percentage Change in Cost

	Coinsurance Rate for PPO/non-PPO			
	90/70 ⁽¹⁾	80/60 ⁽¹⁾	70/50 ⁽¹⁾	80/50 ⁽²⁾
Employee Share	0.0%	37.2%	73.5%	6.6%
SEGBP Share	0.0%	-13.5%	-26.7%	-5.7%
				-18.8%

Note: Current Coinsurance Rate is 90/70

- (1) Scenario assumes current PPO participation of 60%
- (2) Scenario assumes PPO participation rate increases to 70% due to greater incentive to use PPO network

Exhibit F
Cost Impact of Changing Out-of-Pocket Maximums

PMPM Plan Costs to SEGBP

Scenario 1: 60% use PPO Network/40% go out of network

Out-of-Pocket Maximums for Non-PPO Providers	Out-of-Pocket Maximums for PPOs					
	\$800	\$1,000	\$1,250	\$1,500	\$2,000	\$2,500
\$1,800	\$135.42	\$135.14	\$134.69	\$134.53	\$134.30	\$134.12
\$2,000	135.06	134.78	134.33	134.17	133.94	133.76
\$2,500	134.15	133.87	133.42	133.26	133.03	132.85
\$3,000	133.42	133.14	132.69	132.52	132.30	132.12
\$4,000	132.34	132.06	131.61	131.45	131.22	131.04

PMPM Plan Costs to SEGBP

Scenario 2: 70% use PPO Network/30% go out of network

Out-of-Pocket Maximums for Non-PPO Providers	Out-of-Pocket Maximums for PPOs					
	\$800	\$1,000	\$1,250	\$1,500	\$2,000	\$2,500
\$1,800	\$134.06	\$133.73	\$133.21	\$133.02	\$132.75	\$132.54
\$2,000	133.79	133.46	132.94	132.75	132.48	132.27
\$2,500	133.11	132.78	132.25	132.06	131.80	131.59
\$3,000	132.56	132.23	131.70	131.51	131.25	131.04
\$4,000	131.75	131.42	130.90	130.71	130.44	130.23

Exhibit F
Cost Impact of Changing Out-of-Pocket Maximums

PMPM Plan Costs to SEGBE

Scenario 3: 80% use PPO Network/20% go out of network

Out-of-Pocket Maximums for Non-PPO Providers	Out-of-Pocket Maximums for PPOs					
	\$800	\$1,000	\$1,250	\$1,500	\$2,000	\$2,500
\$1,800	\$132.70	\$132.32	\$131.72	\$131.50	\$131.20	\$130.96
\$2,000	132.52	132.14	131.54	131.32	131.02	130.78
\$2,500	132.06	131.68	131.08	130.87	130.56	130.32
\$3,000	131.69	131.32	130.72	130.50	130.20	129.96
\$4,000	131.16	130.78	130.18	129.96	129.66	129.42

PMPM Plan Costs to SEGBE

Scenario 4: 85% use PPO Network/15% go out of network

Out-of-Pocket Maximums for Non-PPO Providers	Out-of-Pocket Maximums for PPOs					
	\$800	\$1,000	\$1,250	\$1,500	\$2,000	\$2,500
\$1,800	\$132.01	\$131.62	\$130.98	\$130.75	\$130.43	\$130.17
\$2,000	131.88	131.48	130.84	130.61	130.29	130.04
\$2,500	131.54	131.14	130.50	130.27	129.95	129.69
\$3,000	131.26	130.86	130.23	130.00	129.67	129.42
\$4,000	130.86	130.46	129.82	129.59	129.27	129.02

Exhibit F

Cost Impact of Changing Out-of-Pocket Maximums

PMPM Plan Costs to Employees

Scenario 1: 60% use PPO Network/40% go out of network

Out-of-Pocket Maximums for Non-PPO Providers	Out-of-Pocket Maximums for PPOs					
	\$800	\$1,000	\$1,250	\$1,500	\$2,000	\$2,500
\$1,800	\$43.42	\$43.70	\$44.15	\$44.31	\$44.54	\$44.72
\$2,000	43.78	44.06	44.51	44.67	44.90	45.08
\$2,500	44.69	44.97	45.42	45.58	45.81	45.99
\$3,000	45.42	45.70	46.15	46.32	46.54	46.72
\$4,000	46.50	46.78	47.23	47.39	47.62	47.80

PMPM Plan Costs to Employees

Scenario 2: 70% use PPO Network/30% go out of network

Out-of-Pocket Maximums for Non-PPO Providers	Out-of-Pocket Maximums for PPOs					
	\$800	\$1,000	\$1,250	\$1,500	\$2,000	\$2,500
\$1,800	\$40.69	\$41.02	\$41.54	\$41.73	\$42.00	\$42.21
\$2,000	40.96	41.29	41.81	42.00	42.27	42.48
\$2,500	41.64	41.97	42.50	42.69	42.95	43.16
\$3,000	42.19	42.52	43.05	43.24	43.50	43.71
\$4,000	43.00	43.33	43.85	44.04	44.31	44.52

Exhibit F
Cost Impact of Changing Out-of-Pocket Maximums

PMPM Plan Costs to Employees

Scenario 3: 80% use PPO Network/20% go out of network

Out-of-Pocket Maximums for Non-PPO Providers	Out-of-Pocket Maximums for PPOs					
	\$800	\$1,000	\$1,250	\$1,500	\$2,000	\$2,500
\$1,800	\$37.96	\$38.34	\$38.94	\$39.16	\$39.46	\$39.70
\$2,000	38.14	38.52	39.12	39.34	39.64	39.88
\$2,500	38.60	38.98	39.58	39.79	40.10	40.34
\$3,000	38.97	39.34	39.94	40.16	40.46	40.70
\$4,000	39.50	39.88	40.48	40.70	41.00	41.24

PMPM Plan Costs to Employees

Scenario 4: 85% use PPO Network/15% go out of network

Out-of-Pocket Maximums for Non-PPO Providers	Out-of-Pocket Maximums for PPOs					
	\$800	\$1,000	\$1,250	\$1,500	\$2,000	\$2,500
\$1,800	\$36.61	\$37.00	\$37.64	\$37.87	\$38.19	\$38.45
\$2,000	36.74	37.14	37.78	38.01	38.33	38.58
\$2,500	37.08	37.48	38.12	38.35	38.67	38.93
\$3,000	37.36	37.76	38.39	38.62	38.95	39.20
\$4,000	37.76	38.16	38.80	39.03	39.35	39.60

Exhibit F

Cost Impact of Changing Out-of-Pocket Maximums

Percentage of Total Health Care Costs Paid by SEGBP/Employee

Scenario 1: 60% use PPO Network/40% go out of network

Out-of-Pocket Maximums for Non-PPO Providers	Out-of-Pocket Maximums for PPOs					
	\$800	\$1,000	\$1,250	\$1,500	\$2,000	\$2,500
\$1,800	76% / 24%	76% / 24%	75% / 25%	75% / 25%	75% / 25%	75% / 25%
\$2,000	76% / 24%	75% / 25%	75% / 25%	75% / 25%	75% / 25%	75% / 25%
\$2,500	75% / 25%	75% / 25%	75% / 25%	75% / 25%	74% / 26%	74% / 26%
\$3,000	75% / 25%	74% / 26%	74% / 26%	74% / 26%	74% / 26%	74% / 26%
\$4,000	74% / 26%	74% / 26%	74% / 26%	74% / 26%	73% / 27%	73% / 27%

Percentage of Total Health Care Costs Paid by SEGBP/Employee

Scenario 2: 70% use PPO Network/30% go out of network

Out-of-Pocket Maximums for Non-PPO Providers	Out-of-Pocket Maximums for PPOs					
	\$800	\$1,000	\$1,250	\$1,500	\$2,000	\$2,500
\$1,800	77% / 23%	77% / 23%	76% / 24%	76% / 24%	76% / 24%	76% / 24%
\$2,000	77% / 23%	76% / 24%	76% / 24%	76% / 24%	76% / 24%	76% / 24%
\$2,500	76% / 24%	76% / 24%	76% / 24%	76% / 24%	75% / 25%	75% / 25%
\$3,000	76% / 24%	76% / 24%	75% / 25%	75% / 25%	75% / 25%	75% / 25%
\$4,000	75% / 25%	75% / 25%	75% / 25%	75% / 25%	75% / 25%	75% / 25%

Exhibit F
Cost Impact of Changing Out-of-Pocket Maximums

Percentage of Total Health Care Costs Paid by SEGBP/Employee

Scenario 3: 80% use PPO Network/20% go out of network

Out-of-Pocket Maximums for Non-PPO Providers	Out-of-Pocket Maximums for PPOs					
	\$800	\$1,000	\$1,250	\$1,500	\$2,000	\$2,500
\$1,800	78% / 22%	78% / 22%	77% / 23%	77% / 23%	77% / 23%	77% / 23%
\$2,000	78% / 22%	77% / 23%	77% / 23%	77% / 23%	77% / 23%	77% / 23%
\$2,500	77% / 23%	77% / 23%	77% / 23%	77% / 23%	77% / 23%	76% / 24%
\$3,000	77% / 23%	77% / 23%	77% / 23%	76% / 24%	76% / 24%	76% / 24%
\$4,000	77% / 23%	77% / 23%	76% / 24%	76% / 24%	76% / 24%	76% / 24%

Percentage of Total Health Care Costs Paid by SEGBP/Employee

Scenario 4: 85% use PPO Network/15% go out of network

Out-of-Pocket Maximums for Non-PPO Providers	Out-of-Pocket Maximums for PPOs					
	\$800	\$1,000	\$1,250	\$1,500	\$2,000	\$2,500
\$1,800	78% / 22%	78% / 22%	78% / 22%	78% / 22%	77% / 23%	77% / 23%
\$2,000	78% / 22%	78% / 22%	78% / 22%	77% / 23%	77% / 23%	77% / 23%
\$2,500	78% / 22%	78% / 22%	77% / 23%	77% / 23%	77% / 23%	77% / 23%
\$3,000	78% / 22%	78% / 22%	77% / 23%	77% / 23%	77% / 23%	77% / 23%
\$4,000	78% / 22%	77% / 23%	77% / 23%	77% / 23%	77% / 23%	77% / 23%

Exhibit F

Cost Impact of Changing Out-of-Pocket Maximums

Percentage Change in SEGBP/Employee Cost
Scenario 1: 60% use PPO Network/40% go out of network

Out-of-Pocket Maximums for Non-PPO Providers	Out-of-Pocket Maximums for PPOs					
	\$800	\$1,000	\$1,250	\$1,500	\$2,000	\$2,500
\$1,800	0% / 0%	-0.2% / 0.6%	-0.5% / 1.7%	-0.7% / 2%	-0.8% / 2.6%	-1% / 3%
\$2,000	-0.3% / 0.8%	-0.5% / 1.5%	-0.8% / 2.5%	-0.9% / 2.9%	-1.1% / 3.4%	-1.2% / 3.8%
\$2,500	-0.9% / 2.9%	-1.1% / 3.6%	-1.5% / 4.6%	-1.6% / 5%	-1.8% / 5.5%	-1.9% / 5.9%
\$3,000	-1.5% / 4.6%	-1.7% / 5.3%	-2% / 6.3%	-2.1% / 6.7%	-2.3% / 7.2%	-2.4% / 7.6%
\$4,000	-2.3% / 7.1%	-2.5% / 7.7%	-2.8% / 8.8%	-2.9% / 9.1%	-3.1% / 9.7%	-3.2% / 10.1%

Percentage Change in SEGBP/Employee Cost
Scenario 2: 70% use PPO Network/30% go out of network

Out-of-Pocket Maximums for Non-PPO Providers	Out-of-Pocket Maximums for PPOs					
	\$800	\$1,000	\$1,250	\$1,500	\$2,000	\$2,500
\$1,800	-1% / -6.3%	-1.2% / -5.5%	-1.6% / -4.3%	-1.8% / -3.9%	-2% / -3.3%	-2.1% / -2.8%
\$2,000	-1.2% / -5.7%	-1.4% / -4.9%	-1.8% / -3.7%	-2% / -3.3%	-2.2% / -2.6%	-2.3% / -2.2%
\$2,500	-1.7% / -4.1%	-1.9% / -3.3%	-2.3% / -2.1%	-2.5% / -1.7%	-2.7% / -1.1%	-2.8% / -0.6%
\$3,000	-2.1% / -2.8%	-2.4% / -2.1%	-2.7% / -0.9%	-2.9% / -0.4%	-3.1% / 0.2%	-3.2% / 0.7%
\$4,000	-2.7% / -1%	-3% / -0.2%	-3.3% / 1%	-3.5% / 1.4%	-3.7% / 2%	-3.8% / 2.5%

Exhibit F
Cost Impact of Changing Out-of-Pocket Maximums

Percentage Change in SEGBP/Employee Cost
Scenario 3: 80% use PPO Network/20% go out of network

Out-of-Pocket Maximums for Non-PPO Providers	Out-of-Pocket Maximums for PPOs					
	\$800	\$1,000	\$1,250	\$1,500	\$2,000	\$2,500
\$1,800	-2% / -12.6%	-2.3% / -11.7%	-2.7% / -10.3%	-2.9% / -9.8%	-3.1% / -9.1%	-3.3% / -8.6%
\$2,000	-2.1% / -12.2%	-2.4% / -11.3%	-2.9% / -9.9%	-3% / -9.4%	-3.2% / -8.7%	-3.4% / -8.2%
\$2,500	-2.5% / -11.1%	-2.8% / -10.2%	-3.2% / -8.8%	-3.4% / -8.4%	-3.6% / -7.6%	-3.8% / -7.1%
\$3,000	-2.8% / -10.2%	-3% / -9.4%	-3.5% / -8%	-3.6% / -7.5%	-3.9% / -6.8%	-4% / -6.3%
\$4,000	-3.1% / -9%	-3.4% / -8.2%	-3.9% / -6.8%	-4% / -6.3%	-4.3% / -5.6%	-4.4% / -5%

Percentage Change in SEGBP/Employee Cost
Scenario 4: 85% use PPO Network/15% go out of network

Out-of-Pocket Maximums for Non-PPO Providers	Out-of-Pocket Maximums for PPOs					
	\$800	\$1,000	\$1,250	\$1,500	\$2,000	\$2,500
\$1,800	-2.5% / -15.7%	-2.8% / -14.8%	-3.3% / -13.3%	-3.4% / -12.8%	-3.7% / -12.1%	-3.9% / -11.5%
\$2,000	-2.6% / -15.4%	-2.9% / -14.5%	-3.4% / -13%	-3.6% / -12.5%	-3.8% / -11.7%	-4% / -11.2%
\$2,500	-2.9% / -14.6%	-3.2% / -13.7%	-3.6% / -12.2%	-3.8% / -11.7%	-4% / -11%	-4.2% / -10.4%
\$3,000	-3.1% / -14%	-3.4% / -13%	-3.8% / -11.6%	-4% / -11.1%	-4.2% / -10.3%	-4.4% / -9.7%
\$4,000	-3.4% / -13%	-3.7% / -12.1%	-4.1% / -10.7%	-4.3% / -10.1%	-4.5% / -9.4%	-4.7% / -8.8%

Exhibit G
Comparison of Conversion Factors for McGraw-Hill Relative Value Schedule
Between SEGBP Physician Fee Schedule and
Louisiana Physician Average Charges in 1994

	SEGBP Discounted Fee Schedule	Louisiana Community Average Charge Levels	Ratio of SEGBP Fee Schedule to Community Average
Surgery	\$105.92	\$115.94	91%
Medicine	\$5.29	\$6.09	87%
Obstetrics	\$73.11	\$116.37	63%
Radiology	\$18.47	\$20.60	90%
Pathology	\$14.24	\$17.63	81%
Overall	\$43.42	\$50.37	86%

	SEGBP Undiscounted Fee Schedule	Louisiana Community Average Charge Levels	Ratio of SEGBP Fee Schedule to Community Average
Surgery	\$141.22	\$115.94	122%
Medicine	\$7.06	\$6.09	116%
Obstetrics	\$97.47	\$116.37	84%
Radiology	\$24.63	\$20.60	120%
Pathology	\$18.99	\$17.63	108%
Overall	\$57.89	\$50.37	115%

Exhibit H
SEGBP Enrolled Employees
By Zip Code

Zip Code	Number of Employees as of 7/17/94	Percentage of Total	1993 Total Paid Claims	Percentage of Total
700-701 New Orleans/Gretna/Port Sulfur	10,823	15%	\$33,806,505	15%
703 Donaldsonville/Houma	2,677	4%	7,428,759	3%
704 Bogalusa/Hammond	6,300	9%	20,132,316	9%
705 Lafayette	7,742	11%	23,371,262	11%
706 Lake Charles	3,658	5%	10,690,430	5%
707-708 Baton Rouge	9,548	13%	24,165,063	11%
710-711 Shreveport/Minden/Mansfield	5,792	8%	14,411,397	7%
712 Ruston/Monroe	11,323	16%	37,835,724	17%
713-714 Alexandria/Leesville/Natchitoches	14,932	21%	49,034,105	22%
TOTAL	72,795	100%	\$220,875,561	100%

Appendix M

Analysis of State Employees Group Benefits Program Competitiveness of Premium Rates and Benefits

Legislative Auditor for the State of Louisiana:
Analysis of State Employees Group Benefit Program
Competitiveness of Premium Rates and Benefits

February 27, 1995

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MILLIMAN & ROBERTSON, INC.

Legislative Auditor for the State of Louisiana:
Analysis of State Employees Group Benefit Program
Competitiveness of Premium Rates and Benefits

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Exhibit A	-	Summary of Premium Rate Sharing
Exhibit B	-	SEGBP Medical Plan Premium Cost Sharing Analysis
Exhibit C	-	Consolidated Comparison Summary of Claims Activity

I. Introduction

Milliman & Robertson, Inc. was retained by the Legislative Auditor for the State of Louisiana and the Select Council on Revenues and Expenditures in Louisiana's Future (SECURE) to assist the Legislative Auditor in analyzing issues related to employee benefits based on the Phase 1 study of Personnel and Benefits conducted for SECURE.

One issue raised by the SECURE report is the competitiveness of the State Employee Group Benefit Program's (SEGBP) premium rate structure. Within this report, we compare SEGBP's cost per participant and employer/employee cost sharing to the employee medical plans of other states and other large Louisiana employers. Next, we test the cost impact of changes to the rate structure of SEGBP. Finally, we make recommendations suggesting ways to improve the State of Louisiana's benefit program to be competitive with similar employers.

Approach to Project

The first step of our analysis is to compare various characteristics of the SEGBP medical plan with other Louisiana employers. The Legislative Auditor's office provided us with a list of 14 Louisiana employers, and we sent each of them surveys with questions regarding their benefits program. We also reviewed and relied upon the results of surveys of other state employee health care plans performed by The Segal Company to do a second comparison. As a third source of information, we compared the SEGBP's premium rates for active employees to the average cost per employee expected for a group with SEGBP's benefit plan and demographic characteristics based on our proprietary health cost database, the *Milliman & Robertson Health Cost Guidelines*.

This report also discusses the relationship of the plan's single and family rates for active participants, and determines the appropriateness of the cost differential based on our *Health Cost Guidelines*. We also estimate the cost impact to SEGBP of various cost sharing scenarios for employees and SEGBP. Finally, we review the covered services and benefit provisions in the SEGBP medical plan and compare them with other employers' medical plans to determine if the program is missing any important services or benefits, or if it includes unusual benefits which other programs do not contain.

We conclude with recommendations to improve the competitiveness of the medical plan and discuss the cost impact of adopting these recommendations.

II. Approach to Analyses

In this section we discuss our overall approach to addressing the several tasks we were assigned and the sources of data used in our analysis.

Survey of Louisiana Employers

We sent surveys to 14 Louisiana employers with questions about their medical plans. The questions asked about the funding of their comprehensive major medical plan and HMO plan (if they have one). The survey also asked about the employer's sharing of costs with the employees.

We received 11 completed surveys, which is more than the ten we had intended to analyze. Of the 11 employers who responded, five employers self-insure their medical plan, four more employers self-insure with stop loss insurance, and the other two employers are fully insured. The employers who responded are listed as follows:

	<u>Number of Covered Employees</u>
Acadian Ambulance	787
Albemarle Corporation	821
Blue Cross/Blue Shield	799
Capital City Press Newspaper	463
Entergy/Gulf States Utilities	17,000
Exxon Company, U.S.A., Baton Rouge Refinery	3,722
Freeport-McMoran, Incorporated	824
General Health, Inc.	2,526
Pan American Life Insurance Company	750
South Central Bell	5,400
Tidewater, Inc.	2,950

We compiled answers from the survey responses and made general comparisons of their responses to the SEGBP plan. The comparisons focused on the cost sharing between employers and employees, as a percentage of total costs. We did not try to adjust for the different benefit structures of the employers' plans, which affects the total cost of the plans. However, we did confirm that all employers have a typical comprehensive major medical plan with deductibles ranging from \$180 - \$500, and coinsurance rates within 10% of the States' coinsurance rate. The results are shown in Section III.

Comparison to Other State Employee Health Benefit Plans

We reviewed the two reports supplied by the Legislative Auditor: The Segal Company's *Comparison with Other State Health Care Plans* and Workplace Economics, Inc.'s *1994 State Employee Benefit Survey*. We linked the analysis of these two reports with the results from the Louisiana employer survey.

Comparison to Milliman & Robertson Database

We compared the SEGBP rates for active participants to the expected costs for a group with the same benefit plan and demographic characteristics as the SEGBP plan, based on the Milliman & Robertson health cost database. The M&R database is updated annually as part of our continuing research into health care costs. It is developed from data representing several million life years of insurance coverage in employer sponsored medical plans.

Using the database, we calculated per member per month (PMPM) costs for the PPO and non-PPO options. We area-adjusted the costs based on the States' distribution of participants throughout Louisiana. These separate costs are weighted together using the current participation rates in each plan, which we estimated to be 60% in the PPO network, and 40% outside of the network. Finally, we compared the total cost per member to the States' current funding rates.

3-Tiered Rate Relationships

We developed costs for each of the three rate tiers based on the PMPM costs from the Milliman & Robertson database. These costs represent participants only, participants with one dependent, and "families" (participants with two or more dependents). The cost differentials between these tiers were calculated, and compared to SEGBP's current 3-tiered funding rates to test for the appropriateness of the rate variation by type of contract.

Cost Sharing Options

We developed possible alternatives to the current SEGBP cost sharing arrangement and calculated the cost impact to SEGBP in each scenario. The scenarios tested the affects of changing the cost sharing of the participants only and participants with dependents tiered groups both singularly and combined. As cost sharing shifts to or from participants, the enrollment in the SEGBP will likely be affected. For instance, as the State pays a greater percentage of the total cost, more of the State's employees not enrolled in the plan will tend to join, further increasing the total cost to SEGBP. Since there is no accurate count of the number of eligible State employees who have decided not to enroll in the plan, we developed some scenarios which suggest possible enrollment changes due to cost sharing shifts to or from participants. We have not tried to estimate the cost to the State of having to change State funding for non-State employees, such as teachers, but we have included an estimate of the State cost for increasing funding for its employees enrolled in HMOs.

Current SEGBP Plan Benefits

We reviewed the benefits currently offered by SEGBP and compared them to benefits typically offered by other Louisiana employers. If there are differences, such as benefits usually offered by other employers not currently offered by SEGBP, we estimate the cost impact to SEGBP for offering these benefits. Similarly, if SEGBP offers benefits not usually offered by other employers, we estimate the cost savings for removing the benefits from the SEGBP plan.

III. Results of Analyses

Survey of Louisiana Employers

Active Employees

We see in Table A below that Louisiana ranks last among the 11 Louisiana employers in aggregate cost sharing. Louisiana ranks last among the surveyed employers for single coverage, and near the bottom in cost sharing of family coverage. More than half of the employers who participated in the survey contribute at least 90% towards single coverage. The distribution varies widely for family coverage, where five of the employers contribute less than 70%. However, the three employers who contribute less than Louisiana in family coverage provide full cost sharing for employee only coverage. In the Cost Sharing Options portion of this section, we will illustrate other cost sharing options which may increase Louisiana's competitiveness with other Louisiana employers' health benefit plans.

Table A
Employers' Contribution Toward Medical Plan Cost
Active Employees/Participants

Employer's Share of Cost	Number of Employers in Each Percentage Range		
	Single Coverage	Family Coverage	Aggregate
100%	5	1	1
90 - 99%	2	1	1
80 - 89%	2	2	3
70 - 79%	1	2	2
60 - 69%	1	2	4
50 - 59%	0	0	0
40 - 49%	1 (LA, 45%)	2 (LA, 47%)	1 (LA, 46%)
30 - 39%	0	2	0
0 - 29%	0	0	0

Retirees

Table B shows the distribution of Louisiana employers who gave responses regarding their degree of cost sharing for retirees with Medicare. We see that there are 6 out of 9 employers who contribute more than the State towards their retiree costs in each coverage category. The remaining three employers do not contribute at all towards their retiree health coverage. The State's contribution towards the cost for retirees without Medicare jumps from about 45% to about 75% of the total premium. There are 5 out of the 9 employers who also contribute towards their retirees without Medicare coverage, at about the same contribution rate as does the State.

Table B
Employers'* Contribution Toward Medical Plan Cost
Retirees with Medicare

Employer's Share of Cost	Number of Employers in Each Percentage Range		
	Retiree Coverage	Retiree + Family Coverage	Aggregate
100%	3	2	2**
90 - 99%	1	1	1
80 - 89%	0	0	0
70 - 79%	1	1	1
60 - 69%	0	0	1
50 - 59%	1	2	1
40 - 49%	1 (LA, 40%)	1 (LA, 45%)	1 (LA, 44%)
30 - 39%	0	0	0
20 - 29%	0	0	0
10 - 19%	0	0	0
0 - 9%	3	3	3

* Insufficient response from two employers.

** One of these employers contributes 100% only if retiree had at least 15 years of service.

Health Maintenance Organizations

Interestingly, only 2 out of the 11 employers responded that they offer HMO's to their employees. On average, the State offers HMO rates which are less than the composite HMO rates offered by the two employers which offer HMO's.

Comparison to Other State Employee Health Benefit Plans

Active Participants

According to The Segal Company's 1994 *Survey of State Employee Health Benefit Plans*, we see in Table C that Louisiana ranks last in employer share of cost for single coverage, and near the bottom in family coverage cost sharing, resulting in an overall ranking for Louisiana of last in aggregate cost sharing. These figures indicate that Louisiana may be uncompetitive with other states' cost sharing arrangements. In particular, nearly half of all states pay for the entire cost of single coverage, while Louisiana covers less than half of the cost. Louisiana requires that employees pay over \$90 per month for single coverage, while the average for all states is only \$33 per month. Also, participants pay over \$180 per month for family coverage, while the average for all states is only \$131. In the Cost Sharing Options portion of this section, we will illustrate other cost sharing options which may increase Louisiana's competitiveness with other states' health benefit plans.

Table C
Other States' Contribution Toward Medical Plan Cost
Active Participants

States' Share of Cost	Number of States in Each Percentage Range		
	Single Coverage	Family Coverage	Aggregate
100%	24	8	7
90 - 99%	10	4	6
80 - 89%	9	10	15
70 - 79%	4	9	12
60 - 69%	2	9	8
50 - 59%	0	3	1
40 - 49%	1 (LA, 45%)	6 (LA, 47%)	1
30 - 39%	0	1	0
0 - 29%	0	0	0

Retirees

According to The Segal Company's 1994 Survey of State Employee Health Benefit Plans, we see in Table D that Louisiana ranks 32nd for retiree only coverage, and moves up to 25th for retiree and family coverage. In Louisiana, the cost paid by retirees with Medicare coverage is \$54 for retiree only coverage, while the average cost paid by retirees for all states is \$58. Further, the cost paid by Louisiana retirees for retiree and family coverage is almost \$103, while the average cost for all states is \$128. This implies that Louisiana is fairly competitive with other states' retiree with Medicare coverage.

Table D
Other States'* Contribution Toward Medical Plan Cost
Retirees with Medicare

States' Share of Cost	Number of States in Each Percentage Range		
	Retiree Coverage	Retiree + Family Coverage	Aggregate
100%	17	9	9
90 - 99%	4	1	1
80 - 89%	6	6	8
70 - 79%	0	3	1
60 - 69%	2	0	5
50 - 59%	2	6	3
40 - 49%	1 (LA, 40%)	3 (LA, 45%)	3
30 - 39%	0	2	2
20 - 29%	1	1	0
10 - 19%	1	2	2
0 - 9%	15	16	15

* excludes New Mexico

According to Exhibit C which the Legislative Auditor provided to us, the State of Louisiana covers over 17,000 retirees with Medicare, and also covers nearly 10,000 more retirees without Medicare, as of November, 1994. Since the State decided that retirees without Medicare coverage should contribute the same amount as active participants, the State has an added burden of cost sharing because costs for retirees without Medicare are three to four times higher than the costs for retirees with Medicare.

Health Maintenance Organizations

Louisiana offers 10 HMOs to its employees. The average number of HMOs offered by all states is about 8. However, only 11 states offer more HMO's than Louisiana. According to the Segal Company's 1994 Survey of State Employee Health Benefit Plans, Louisiana ranks 12th among all states in their percentage of active employees enrolled in HMO's. Also, Louisiana ranks 14th for the most competitive HMO composite premium. The similarity in the two rankings seem to make sense in that the more competitive the HMO premium is, the more likely its employees will enroll in the HMO. As a result, we conclude that SEGBP's current HMO options are competitive with other states' HMO arrangements.

Comparison to Milliman & Robertson Database

Comprehensive Major Medical Plan

We calculated expected costs for a group with the same benefit plan and demographic characteristics as the SEGBP plan based on the Milliman & Robertson database. Our manual rates were then compared to SEGBP's medical plan for active participants. We used the current PPO participation rate of 60% to weight the costs for the PPO and non-PPO options, and developed the following per member per month cost estimates:

Table E
Per Member Per Month Cost Based on Database

	Weights	M&R Manual Rate for SEGBP
PPO	60%	\$101
Non-PPO	40%	\$115
Total	100%	\$107

The \$107 per member per month rate is the expected claim costs based on our manual rates. We loaded the \$107 with a 6% administrative loading factor, to come up with a PMPM premium rate estimate of \$114.

From Exhibit C, the Consolidated Comparison Summary of Claims Activity, we see that the average premium per contract for active participants is \$263.72. We estimate that the total number of members (participating employees and their dependents) associated with the 48,653 active employees in Exhibit C is 112,080. Therefore, SEGBP's average premium per member is \$114.48. Thus, SEGBP's actual premium rates for active participants are within 1% of the manual rates which we would expect based on the Milliman & Robertson Guidelines.

Health Maintenance Organizations

We calculated premium rates for a typical Louisiana employer's HMO plan based on the Milliman & Robertson database to compare to the average of the combination of the State's HMO plans. Using an average plan design for HMO's, such as the Ochsner Health Plan HMO in New Orleans, the expected per participant per month cost, assuming undiscounted charge levels and no reduction in utilization levels due to healthcare management, is \$375. The State's current average HMO premium is \$280.73, which suggests the State is benefiting from a combination of provider discounts and healthcare management that reduces the cost of the relatively rich HMO benefit plans by about 25%, although the average HMO premium still exceeds the average SEGBP premium.

3-Tiered Rate Relationships

SEGBP's current premium rates charged to participants are as follows:

Coverage Category	Total Cost
Single Coverage	\$168.20
Participant + 1 Dependent	\$284.12
Family Coverage	\$347.08

“Family” coverage would include the participant plus two or more dependents.

This rate structure means that the participant plus one dependent premium is 69% higher than the single coverage premium for SEGBP. Similarly, the family coverage premium is 106% greater than the single coverage premium. According to the *Milliman & Robertson Health Cost Guidelines* we expect that the participant plus one dependent premium rate should be over 100% greater than the single coverage premium rate. Table F also shows that the family coverage category should be 137% greater than the single coverage category.

Table F
Actual vs. Expected Premium Rate Differentials

Coverage Category	Ratio to Participant Only	
	SEGBP Premiums	M&R Expected Costs
Single Coverage	1.00	1.00
Participant + 1 Dependent	1.69	2.03
Family Coverage	2.06	2.37

These ratios reflect the State's participant makeup of 59% female versus 41% male, and the fact that the average age of active participants is 44.5. This is slightly higher than the average nationwide employee age of 40.2.

The cost relationships suggest that the SEGBP's current rate structure charges relatively more for those in the single coverage category, and less for participants with dependents than we would expect based on healthcare cost experience from other plans around the country. We did not try to analyze the actual costs of each rate tier in the SEGBP.

Cost Sharing Options

Exhibit B displays the current premium rates and cost sharing in the SEGBP medical plan for the State's active employees. As of November, 1994, there are over 48,000 active employees in the plan. Based on SEGBP's current cost sharing arrangement, the State pays almost \$72 million per year to fund the medical plan for the active participants. Exhibit B also contains a matrix of scenarios in which we estimate the cost impact on the State of increasing its cost sharing percentage for its employees.

In our analysis we did not try to account for extra costs the State would incur by also increasing its medical plan contributions for Louisiana school employees who may not be participating in the SEGBP. We do not know the number of these school employees and such an analysis is beyond the scope of our assignment. However, it would seem that the State could limit these extra costs by making a policy decision to divorce the State cost sharing on school employees who do not participate in the SEGBP from the cost sharing on those State and school employees who do participate.

Scenario 1 tests the cost impact if the State were to pay the entire medical cost for both participants and their dependents. If we assume that there is no added enrollment after this change, we estimate that the State will see its cost increase by over \$82 million per year; a 115% increase. However, it is more appropriate to assume that this change would also mean that all eligible state employees would enroll in the SEGBP plan. The Legislative Auditor's office informed us that the State's number of participating employees could increase by over 50% if all eligible employees enrolled in the plan. Thus, we provide cost estimates assuming enrollment increases by 25% and 50%. The cost impact in Scenario 1 is the maximum cost increase that the State could encounter under current participation, since it assumes the State pays 100% of the total cost of the medical plan for active participants.

Scenario 2 illustrates a cost sharing alternative followed by several of the Louisiana employers we surveyed. In this scenario, the employer pays the entire portion of the participant only category, and the same amount towards the participants with dependents categories. In effect, the employer pays for its participating employees, and the employees pay for their dependents. This change in cost sharing would increase the monthly cost to the State by 37%, or \$26 million, assuming no increase in enrollment.

Scenario 3 estimates the cost impact if the State were to pay 100% of the participant only category, and leave the cost sharing for participants with dependents at its current level. Scenario 4 estimates the cost impact if the State were to pay 100% for participants with dependents, while leaving the cost sharing for singles at its current level.

Scenarios 5 through 7 consider the cost impact of moving Louisiana to a rank of 25th in its cost sharing percentage compared to other states' cost sharing. Scenario 5 assumes Louisiana increases its cost sharing with singles to 98%, which would put Louisiana 25th in its ranking with other states. Scenario 6 assumes the State increases its share of participants with dependents to 77%, which would rank Louisiana 25th, as well. Scenario 7 estimates the cost impact if Louisiana were to increase its share for both categories, thus giving the State a rank of 25th for both categories. The extra cost to the State of making these changes in scenarios 5, 6, and 7 are estimated to be about \$20 million, \$35 million, and \$55 million, respectively, assuming there is no increase in plan enrollment.

Cost Sharing Options - HMO Plan

We estimated the additional cost to the State for changes in the premium cost sharing for the HMO plans. We were given the following data by the Legislative Auditor's office:

Number of Employees in HMO Plans	32,963
HMO Annualized Premium: Employees' Share	\$59,247,708
HMO Annualized Premium: State's Share	\$46,428,132
Total Annualized HMO Premium	<u>\$105,675,840</u>

The State's share of individual premium by tier category is almost the same as in the indemnity plan. If we assume that the State increased its share of the total premium to equal 100% of the single coverage rate, we expect an increased cost to the State.

We estimated the average premium for single coverage for all HMO's offered to the State to be \$162.57, slightly less than the indemnity rate of \$168.20. If the State were to contribute \$162.57 for all employees in all types of HMO coverage, its HMO premium costs would increase by 39%, assuming no change in enrollment. The annualized amounts of premium to employees and the State changes as follows:

New HMO Annualized Premium: Employees' Share	\$41,370,300
New HMO Annualized Premium: State's Share	\$64,305,540
Total Annualized HMO Premium	<u>\$105,675,840</u>

If the State were to simply increase its share of costs to the same percentage for all types of HMO coverage, the State's cost would increase as follows:

State Share	Employee Share	Increase to State	Annual Increase to State in dollars
44% (Current)	56%	0%	\$0
50%	50%	14%	\$6,409,788
60%	40%	37%	\$16,977,372
70%	30%	59%	\$27,544,956

Therefore, if the State were to increase its overall cost share to 60% for all coverages, it would increase its cost by 37%, almost the same effect as contributing the full cost of single coverage for all categories.

Current SEGBP Plan Benefits

We reviewed the medical benefits which are offered to the State of Louisiana employees to determine if there are any missing benefits which are usually included in benefit plans.

One benefit which could be considered missing from the SEGBP plan design would be the lack of coverage for physical exams for children between the ages of seven, when the current well child care benefit ends, to age sixteen, when the \$100 physical examination benefit begins. Currently, children between the ages of two and seven are allowed a physical exam up to a maximum benefit of \$35. Increasing this benefit to \$100 and allowing all children up to age sixteen one physical exam per year would increase the plan cost to SEGBP by \$0.33 PMPM, or a total dollar increase of about \$450,000 per year. Simply extending the \$35 annual benefit beyond age 7 would increase SEGBP costs by just over \$120,000 per year.

SEGBP's current plan design does not include any benefits which are unusual for most health plans and which we believe should be eliminated.

IV. Conclusions and Recommendations

The covered services and benefits currently offered in the SEGBP medical plan seem adequate in comparison to other Louisiana employer plans and other states' health plans. The major issue with the competitiveness of the SEGBP plan is in its cost sharing with employees.

Premium Cost Sharing

The decision as to whether to increase the level of the State's contribution toward the cost of the medical plan should only be made in conjunction with an analysis of the State's total compensation package for its employees, of which the medical plan is a small but important part. If the total compensation package for the employees is deemed to be inadequate to meet the State's needs and goals in recruiting and retaining quality employees, then we recommend that the State consider the medical plan contribution as one area where Louisiana is behind other states and other large employers in Louisiana and which should be increased to make the State more competitive in the labor market. However, we recognize the State may currently be limited in its authority to contribute more than 50% toward the cost of the plan for active employees.

If, on the other hand, the State's total employee compensation package is deemed more than adequate to meet the State's employee recruitment and retention needs, we recommend the State look elsewhere to cut back on compensation since the State contribution to the medical plan is already non-competitive with similar employers.

Premium Rate Relationships

We believe the total active single premium rate of \$168.20 is somewhat high, relative to the participant plus one dependent and family premium rates of \$284.12 and \$347.08, respectively. The single participant rate should probably be lower and the two categories with dependent rates should be higher if the intent is to have each rate reflect the expected costs, based on national data, of the participants in the rate tier. A set of rates that would yield the same overall premium revenue, assuming enrollment does not change, and better reflect the cost experience of each rate tier in similar plans around the country is:

Single	\$151
Participant plus one dependent	\$306
Family	\$357

Alternatively, the SEGBP could temporarily freeze the employee only rate at \$168.20 and let future rate increases apply only to the other two rate tiers until the following rate structure is reached:

Single	\$168.20
Participant plus one dependent	\$341.45
Family	\$398.63

This rate structure would generate an additional \$1.6 million of premium on today's enrollment, a 13% increase.

Having said this, we note that there is no particular harm to the SEGBP plan in having single participants somewhat subsidize the participants with dependents if there is a conscious decision to do so.

Covered Services

There are no major gaps in coverage in the medical plan and the benefits provided for covered services are typical for a large employer's major medical plan. However, we recommend the SEGBP consider expanding coverage to include annual physical exams for children of ages 8 through 15, who are now left out of the physical exam benefit. Extending the \$35 per year benefit to children beyond age 7 might cost the plan about \$120,000 per year.

EXHIBIT A

20. MONTHLY PREMIUMS (Effective July 1, 1994)

<u>ACTIVE</u>	<u>EMP SHARE</u>	<u>STATE SHARE</u>	<u>TOTAL</u>
SINGLE COVERAGE	\$ 93.10	\$ 75.10	\$168.20
EMPLOYEE & ONE DEP.	\$151.06	\$133.06	\$284.12
FAMILY COVERAGE	\$182.54	\$164.54	\$347.08
 <u>RETIREE</u>			
<u>SINGLE COVERAGE</u>			
WITHOUT MEDICARE	\$ 93.10	\$285.38	\$378.48
WITH MEDICARE	\$ 54.04	\$ 36.04	\$ 90.08
<u>EMPLOYEE & ONE DEP.</u>			
NONE WITH MEDICARE	\$151.06	\$505.62	\$656.68
ONE WITH MEDICARE	\$109.86	\$307.90	\$458.96
TWO WITH MEDICARE	\$102.58	\$ 84.58	\$187.16
<u>FAMILY COVERAGE</u>			
NONE WITH MEDICARE	\$182.54	\$625.26	\$807.80
ONE WITH MEDICARE	\$138.74	\$415.02	\$597.56
TWO WITH MEDICARE	\$129.52	\$111.52	\$241.04
 <u>PART-TIME COBRA</u>			
SINGLE COVERAGE	\$ 96.46	\$ 75.10	\$171.56
EMPLOYEE & ONE DEP.	\$156.74	\$133.06	\$289.80
FAMILY COVERAGE	\$189.50	\$164.54	\$354.04
 <u>COBRA</u>			
SINGLE COVERAGE	\$171.56	\$0.00	\$171.56
EMPLOYEE & ONE DEP.	\$289.80	\$0.00	\$289.80
FAMILY COVERAGE	\$354.04	\$0.00	\$354.04

EXHIBIT B
SEGBP Medical Plan Premium Cost Sharing Analysis

Current Rates and Cost Sharing

Contract Category	State Cost		Employee Cost		State Annual Cost
	Total Cost	Share	Cost	Share pctg	
Ptcp Only	\$168.20	\$75.10	\$93.10	55%	\$16,574,868
Ptcp + 1	284.12	133.06	151.06	53%	19,422,504
Family	347.08	164.54	182.54	53%	35,732,160
TOTAL					\$71,729,532

Matrix of Cost Sharing scenarios and their cost impact

Scenario	Description	State		EE pctg	Enrollment Remains Stable		Enrollment Increases by 25%		Enrollment Increases by 50%		
		Share	percentage		Change in State Cost (in dollars)	(%)	Change in State Cost (in dollars)	(%)	Change in State Cost (in dollars)	(%)	
Current	Current Cost Sharing arrangement	75.10	45%	55%							
Scenario 1	100% Paid by State	Ptcp Only	133.06	47%	53%	\$0	0%	\$17,931,888	25%	\$35,865,768	50%
		Family	164.54	47%	53%						
Scenario 2	Common cost share arrangement by employers	Ptcp Only	168.20	100%	0%	\$82,238,592	115%	\$120,729,588	168%	\$159,224,748	222%
		Family	347.08	100%	0%						
Scenario 3	Fix dependent percentages, state pays 100% Employee only	Ptcp + 1	168.20	59%	41%	\$26,471,676	37%	\$51,021,480	71%	\$75,573,300	105%
		Family	168.20	48%	52%						
Scenario 4	Fix employee only percentage, State pays full dependent cost	Ptcp Only	168.20	100%	0%	\$20,547,540	29%	\$43,616,316	61%	\$66,687,084	93%
		Family	164.54	47%	53%						
Scenario 5	Fix dependent, change EE only percent so they are ranked 25th among other states	Ptcp + 1	75.10	45%	55%	\$61,691,052	86%	\$95,045,160	133%	\$128,403,432	179%
		Family	284.12	100%	0%						
Scenario 6	Fix employee only, change dependent percent so they are ranked 25th among other states	Ptcp Only	164.84	98%	2%	\$19,805,976	28%	\$42,689,364	60%	\$65,574,732	91%
		Family	133.06	47%	53%						
Scenario 7	Fix employee only, change dependent percent so they are ranked 25th among other states	Ptcp + 1	164.54	47%	53%	\$34,815,828	49%	\$61,451,376	86%	\$88,090,128	123%
		Family	267.25	77%	23%						
Scenario 7	Change both category percentages so they are ranked 25th among other states	Ptcp Only	164.84	98%	2%	\$54,621,804	76%	\$86,208,852	120%	\$117,799,092	164%
		Family	218.77	77%	23%						

MILLIMAN & ROBERTSON, INC.

DATE: 12/05/94

EXHIBIT C

CONSOLIDATED COMPARISON SUMMARY OF CLAIMS ACTIVITY FOR MONTH OF 11/94

RPT NBR GROUP	NUMBER OF MEMBERS OR INSURED	NUMBER OF PAID CLAIMS	AVER. CLAIMS PER CONTR.	TOTAL BENEFITS	AVERAGE BENEFITS PER CLAIM	*HOSP DAYS CONTRACT	AVERAGE HOSPITAL DAYS PER CONTRACT	AVERAGE BENEFITS PER CONTRACT	AVERAGE PREMIUM PER CONTRACT	TOTAL GAIN OR (LOSS) FOR GROUP
019 GRAND TOTAL	75,778	169,603	2.24	19,232,384	113.40	1478	0.0195	253.80	269.00	1,152,181
113 ALL ACTIVES	48,653	104,611	2.15	11,704,297	111.88	746	0.0153	240.57	263.72	1,126,380
ALL RETIREES	27,125	64,992	2.40	7,528,086	115.83	732	0.0270	277.53	278.48	25,802
123 ALL WITHOUT MEDICARE	57,051	129,916	2.28	15,231,348	117.24	1104	0.0194	266.98	297.80	1,758,270
ALL WITH MEDICARE	18,727	39,687	2.12	4,001,035	100.81	374	0.0200	213.65	181.29	(606,089)
133 ACTIVITIES WITHOUT MEDICARE	47,208	98,746	2.09	10,684,530	108.20	627	0.0133	226.33	265.52	1,850,359
ACTIVES WITH MEDICARE	1,445	5,865	4.06	1,019,767	173.87	119	0.0824	705.72	204.70	(723,980)
RETIREES WITHOUT MEDICARE	9,843	31,170	3.17	4,546,818	145.87	477	0.0485	461.93	452.58	(92,089)
RETIREES WITH MEDICARE	17,282	33,822	1.96	2,981,268	88.15	255	0.0148	172.51	179.33	117,890
143 SINGLE, ACTIVE, NO M/C	17,371	21,986	1.27	2,515,524	114.41	93	0.0054	144.81	168.20	406,278
SINGLE, ACTIVE, M/C	1,021	2,334	2.29	392,777	168.28	33	0.0323	384.70	168.20	(221,044)
SINGLE, RETIRED, NO M/C	4,491	10,925	2.43	2,031,595	185.96	321	0.0715	452.37	378.48	(331,841)
SINGLE, RETIRED, M/C	10,772	16,024	1.49	1,221,670	0.00	166	0.0154	113.41	90.08	(251,329)
TWO, ACTIVE, NO M/C	11,797	28,364	2.40	3,179,499	112.10	186	0.0158	269.52	284.12	172,265
TWO, ACTIVE, M/C	367	2,838	0.24	486,547	171.44	70	0.1907	1,325.74	284.12	(382,275)
TWO, RETIRED, NO M/C	4,138	15,811	3.82	1,885,578	119.26	117	0.0283	455.67	656.68	831,764
TWO, RETIRED, M/C	6,243	17,270	2.77	1,667,391	96.55	88	0.0141	267.08	323.06	349,472
FAMILY, ACTIVE, NO M/C	18,040	48,396	2.68	4,989,507	103.10	348	0.0193	276.58	347.08	1,271,816
FAMILY, ACTIVE, M/C	57	693	12.16	140,444	202.66	16	0.2807	2,463.93	347.08	(120,660)
FAMILY, RETIRED, NO M/C	1,214	4,434	3.65	629,646	142.00	39	0.0321	518.65	807.80	(592,012)
FAMILY, RETIRED, M/C	267	528	1.98	92,206	174.63	1	0.0037	345.34	419.30	19,747
213 ALL SINGLE-PARTY COVERAGE	33,655	51,269	1.52	6,161,566	120.18	613	0.0182	183.08	171.26	(397,936)
ALL TWO-PARTY COVERAGE	22,545	64,283	2.85	7,219,015	112.30	461	0.0204	320.20	363.28	971,226
ALL FAMILY COVERAGE	19,578	54,051	2.76	5,851,803	108.26	404	0.0206	298.90	285.24	578,891
223 PLAN MEMBERS ONLY	75,778	101,102	1.33	11,952,153	118.22	975	0.0129	157.73	177.70	1,513,423
DEPENDENTS ONLY	78,979	68,501	0.87	7,280,231	106.28	503	0.0054	92.18	87.61	(361,242)
233 SINGLE-PARTY: MEMBERS	33,655	46,805	1.39	5,749,896	122.85	598	0.0178	170.85	171.26	13,734
SINGLE-PARTY: DEPENDENTS	n/a	4,464	0.13	411,670	92.22	15	0.0004	12.23	0.00	(411,670)
TWO-PARTY: MEMBERS	22,545	30,501	1.49	3,788,169	113.08	225	0.0100	168.03	185.16	386,335
TWO-PARTY: DEPENDENTS	22,545	30,782	1.37	3,430,846	111.46	236	0.0105	152.18	178.12	584,891
FAMILY COV.: MEMBERS	19,578	20,796	1.06	2,414,088	116.08	152	0.0078	123.31	180.17	1,113,354
FAMILY COV.: DEPENDENTS	56,434	33,255	1.70	3,437,715	103.37	252	0.0129	175.59	148.29	(534,462)
FAMILY COV.: Deps/Contract	2.88									

* Does not include 1,880 PPO Hospital Days (\$ 2,502,557) at \$1,331.15 per day; compared to 1,478 non-PPO days (\$ 2,469,151 including miscellaneous hospital charges) at \$1,670.32 per day.

MILLIMAN & ROBERTSON, INC.

Appendix N

Analysis of State Employees Group Benefits Program Rate Setting Methods and Financial Analysis

Legislative Auditor for the State of Louisiana:
Analysis of State Employees Group Benefit Program
Rate Setting Methods and Financial Analysis

February 27, 1995

Tim D. Lee, F.S.A.
J. Elisabeth Starnes, A.S.A.

MILLIMAN & ROBERTSON, INC.

Legislative Auditor for the State of Louisiana:

**Analysis of State Employees Group Benefit Program
Rate Setting Methods and Financial Analysis**

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- Appendix B - Discussion of the Risk-Based Capital Approach to Designating Surplus Levels

Exhibits

- Exhibit 1 - Incurred vs. Paid Claims Per Participant
- Exhibit 2 - Historical and Projected Enrollment
- Exhibit 3 - Estimation of Average Premium Rate per Participant for Fiscal Year 1995
- Exhibit 4 - Paid Claims Data Provided
- Exhibit 5 - Modified Paid Claims Data
- Exhibit 6 - Historical Medical Benefits for the SEGBP - Mid Estimate
- Exhibit 7 - Historical Medical Benefits for the SEGBP - Low Estimate
- Exhibit 8 - Historical Medical Benefits for the SEGBP - High Estimate
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- Exhibit 15 - Twelve Month Estimated Incurred Claims Per Participant

I. Introduction

Milliman & Robertson, Inc. was retained by the Legislative Auditor for the State of Louisiana and the Select Council on Revenues and Expenditure in Louisiana's Future (SECURE) to assist the Legislative Auditor in analyzing issues related to employee benefits based on the Phase 1 Study of Personnel and Benefits conducted for SECURE. We refer to this study as the SECURE report.

An issue raised by the SECURE report concerns the sufficiency of SEGBP's funding rates to cover the claims and administrative expenses under its medical plan. Our report addresses this issue by evaluating the adequacy of the methodology used to calculate current funding rates, and by conducting a complete financial analysis which includes an analysis of the plan's historical claims experience and a projection of the plan's future claims experience and expenses. We close by providing recommendations for reserves, surplus and methods for establishing future funding rates. The scope of our report covers only those participants in the indemnity plan.

II. Approach to Analysis

The purpose of this section is to describe the approach we used to evaluate the current rate setting methodology. This approach consists of first performing a technical review of the methodology, and then to conduct our own financial analysis and projection to determine actual funding rate adequacy. At the conclusion of our analysis, we make recommendations for revised funding rates and an improved rate setting methodology.

Evaluation of SEGBP's Current Rate Setting Methods

We understand that the recent history of establishing funding rates has included holding the rates constant from year to year and adding lump sum capital contributions on an ad hoc basis when cash was deemed to be low. The last rate adjustment, an increase of \$18 per participant, was made for Fiscal Year 1994. Fiscal Year 1995 rates are the same as for Fiscal Year 1994. Prior to that rate increase, the next previous rate increase was in Fiscal Year 1989.

We were told by the SEGBP staff that upon the request of the staff, (such a request is made on an ad hoc basis when the staff perceives a need for a funding adjustment) the SEGBP's benefits consultant, The Segal Company, will analyze the claims experience data available and make a funding rate recommendation to the staff. The staff presents a proposal to the SEGBP Board. If passed by the Board, the proposal moves on to the Legislative Oversight Committee, which also must approve the proposal.

Financial Analysis of Claims Experience

To analyze the claims experience, we first converted the experience from a "paid" basis to an "incurred" basis. *Incurred* claims are preferred over *paid* claims since this method matches claims to the number of participants who generated those claims in a given month. Also, the actual paid amounts each month can be manipulated or affected by cash strains or down-time or over-time in the claims processing department, whereas the amounts incurred are not affected by these situations.

To illustrate the importance of analyzing incurred claims over paid claims, we have included as Exhibit 1 a graph of historical *paid* claims per participant versus *incurred* claims per participant on a 3-month rolling average basis from January, 1990 through October, 1994. Note that the patterns in the paid claims are significantly different from the patterns in the incurred claims. Clearly, the analysis of the claims experience by paid month would not give a reasonable picture of the actual emerging experience on an incurred claims basis, which ultimately drives the true cost of the plan.

By analyzing the paid and incurred claim history, we can look at the typical length of time from the date of incurral to the date of ultimate payment. We refer to this length of time as the average "lag" time. In the case of the SEGBP, this average lag time has fluctuated considerably over the experience period and has made it difficult to estimate what the current average lag time may be. The estimation of the average lag time was further complicated by incomplete incurred claims experience data, and a claims backlog which existed during 1993 and was subsequently drawn down in 1994. The incomplete claims data problem is further discussed in Section III.

Using our estimated lag times, we developed "completion factors" to help us estimate the total claims incurred for each month through the valuation date. We also used alternative methods to check the reasonableness of our incurred claims calculations. The fact that the incomplete incurred claims experience creates additional uncertainty in the results lead us to develop a range of estimates for the program's incurred claims, characterized as low, mid and high cost estimates.

Projection of Claims Experience

We projected total claims by multiplying projected incurred claims per participant by our projected enrollment. This methodology required an enrollment analysis and projection as well as a financial analysis and projection of claims cost trends. This methodology is described in the paragraphs below.

Enrollment Analysis and Projection. We projected enrollment based upon monthly growth patterns observed in the historical participant count data. In determining our trend assumptions, we relied more heavily upon recent growth patterns rather than long term growth patterns as we are assuming that the large enrollment increase experienced during Fiscal Years 1992 and 1993 is not going to occur during the projection period. Exhibit 2 is a graph that shows both historical and projected enrollment. The enrollment numbers are also summarized under the "Participants" column in Exhibit 6.

Note that the definition of "participant" represents the total of active employees and retirees who participate in the SEGBP plan and does not include the number of dependents. Since the historical number of insured dependents by month is not available to us, we have assumed that the average number of dependents per participant has been, and will continue to be, constant.

Cost Trend Analysis and Projection. The purpose of the cost trend analysis is to review the historical rates of increase in program costs so as to use this data as a basis for developing estimates of future program cost trends. Thus, our analysis of historical trends is based upon the results of our financial analysis of the claims experience described above.

In doing the trend analysis, the measure that we work with is incurred claims per participant per month. As discussed above, it is important to work with *incurred claims* rather than paid claims since paid claim levels can be affected by external influences which do not necessarily affect the rate at which claims are incurred. We work with claims *per participant* since by dividing out the number of participants from total claims, we effectively divorce any fluctuations in the total number of participants from the "true" cost of medical benefits. That is, we have separated the effects of the forces that determine the number of participants in the program, from the forces that determine the cost of healthcare for an individual.

After we estimated the cost per participant for all months in the experience period, we then calculated the annual rate of increase (the trend rate) in the cost per participant for each historical incurral month by taking, for example, the ratio of the cost per participant of October, 1993 over the cost per participant of October, 1992. We then analyzed these trend rates considering past benefits changes, enrollment changes, and medical claims costs trends. During this analysis, we tried to understand why historical trends have behaved the way they have, especially if the trends differed from the way we expected.

We noted that when single months are used, the apparent annual trends tended to fluctuate significantly. Therefore, we combined three, six and twelve months of data together so as to smooth out these fluctuations and to get a better reading on the average trend rates. We then projected these "smoothed" trends through the end of the projection period to get projected costs per participant. Total projected claims were then estimated by multiplying the projected cost per participant by the projected number of participants.

Calculate Funding Rates for the Current Fiscal Year

We calculated the funding rates for the current fiscal year to cover the full estimated cost of the plan. We did this by first adding together our mid incurred claims and administrative expense estimates for the twelve months ending June 30, 1995 to get the total cost estimate for the plan. We then divided this cost estimate by the projected number of participant-months for the fiscal year to get a total average cost per participant per month which is the average funding rate per participant per month. Finally, we calculated funding rates for each rate tier by applying the ratios of the current tiered funding rates to the current average funding rate per participant (which we calculated using SEGBP's enrollment data and rate summary).

We estimated expenses using historical and budgeted expense data provided to us for Fiscal Years 1991 through 1995. This data did not show the expenses split between variable (per participant, etc.) and fixed (i.e., overhead) so we limited our analysis to examining how expenses varied with the volume of paid claims, incurred claims and the number of participants. Our estimates of expenses are based upon the number of participants since paid claims have fluctuated considerably, and trends in incurred claims are typically quite higher than trends in administrative expenses.

Premium Rates

We were provided with the current premium rates by type of coverage (single, employee plus one dependent, etc.) and the number of participants in each coverage category as of November, 1994. We used this information to calculate the expected premium revenue for Fiscal Year 1995. Exhibit 3 shows the premium rates and enrollment we were provided with and our average premium rate calculation.

Other Revenues

In reviewing the premium rate adequacy we considered the availability of other revenue sources to supplement the funding from the premium rates. These other sources include investment income on SEGBP assets, any excess funds from the life insurance plan and administrative fees charged to the HMOs on HMO enrollees.

III. Results

This section discusses the results of our evaluation of the current rate setting methodology and presents our financial analysis and projection of the medical program. Our estimated funding rates needed for Fiscal Years 1995 and 1996 are also included.

Evaluation of SEGBP's Current Rate Setting Methods

We did not review the specific rate setting methods employed by the SEGBP's benefits consultant, The Segal Company. However, in our discussions with the Segal Company we did find one major deficiency in the data available to them which will significantly hinder the effectiveness of *any* rate setting methodology. Although all claims *paid* from January, 1990 through October, 1994 are presumably accounted for in the claims experience reports, the *complete allocation of paid claims by incurral month*, which is necessary for the most fundamental claims analysis, is not available. Without a complete allocation of paid claims by incurral month, the calculation and analysis of historical trends (and, thus the projection of trends and future costs) becomes difficult at best, and is far less reliable than it would have been otherwise if such data had been available.

As an example of the deficiency of the claims experience report, we have included as Exhibit 4 a paid claims report showing the original data received, and for comparison, we have included as Exhibit 5, a modified claims paid report illustrating what we would usually expect to see in a complete claims experience report. The difference in the original and modified reports are the added numbers that are "boxed" in the modified report which we estimated by observing payment patterns in the original data. We developed this "modified" report so we could better analyze the historical data. Since some of the claims "experience" has been estimated, our results will be less reliable than otherwise. Our example shows what information is necessary, and to what extent we had to make further assumptions in order to do our analysis.

Financial Analysis of Claims Experience

Summary of Historical Claims Experience. The complete results of our financial analysis of historical claims under our mid estimate is shown in Exhibit 6. Our results under our low and high cost estimates are shown in Exhibits 7 and 8, respectively. These exhibits show, by month, historical and projected participants, paid claims sorted by month, paid claims sorted by incurred month, cost per participant and cost trends per participant. A summary of our results under our mid estimate is shown in Table 1 of the following page.

Table 1
Summary of the SEGBP's Medical Plan Claims Experience
For Fiscal Years 1991 - 1994
Based Upon M&R's 10/31/94 Valuation and Projection
Mid Estimate

Fiscal Year	Average No. of Participants	No. of Participant Months	Paid Claims	Incurred Claims	Cost Per Participant	Cost Trend
1991	64,483	773,796	175,926,805	180,167,505	232.84	N/A
1992	67,367	808,404	215,001,492	216,098,100	267.31	1.148
1993	72,645	871,734	225,981,854	229,904,502	263.73	.987
1994	74,637	895,640	232,644,044	228,041,291	254.61	.965

Calendar Year	Average No. of Participants	No. of Participant Months	Paid Claims	Incurred Claims	Incurred Cost Per Participant	Cost Trend
1991	65,608	787,299	187,675,419	196,808,387	249.98	1.129
1992	70,055	840,656	218,674,325	230,548,752	274.25	1.097
1993	74,035	888,425	225,441,265	227,341,000	255.89	.933
1994*	74,805	448,831	132,699,881	109,893,797	244.84	.916

* Represents data through June, 1994; trend is annualized.

In this table, the *Average No. of Participants* column shows the average number of enrolled actives and retirees per month. The *Number of Participant-Months* column represents the total of all enrolled participants in each month for the entire year. The *Cost Per Participant* column is the *Incurred Claims* column divided by the *Number of Participant Months* column. The *Cost Trend* column shows the annual increase/(decrease) in the *Cost Per Participant* column.

Note that the cost trends were slightly decreasing (i.e., less than 1.0) in Fiscal Years 1993 and 1994. We believe that this is due to the extensive PPO discounts for physician and hospital inpatient services incorporated into the plan during 1992 and 1993 along with the accompanying benefit changes implemented in July, 1993. Also during this period, mental health services were carved out of the regular benefit plans and provided on a capitated basis. Prescription drug costs were also reduced by contracting with a prescription drug network.

Impact of Past Benefits Changes. We were provided with a detailed summary of all benefit changes from August, 1979 through December, 1994. We noted that several significant benefit changes occurred during this period, most of which became effective on July 1, 1993, at the beginning of Fiscal Year 1994. We have summarized only the significant benefit changes in the experience period in Table 2 on the following page. This table also shows whether the benefit change served to increase or decrease costs.

Table 2
Summary of Significant Benefit Changes Implemented July 1, 1993
from Attachment 5 of the SECURE Response
Summary of Benefit Modifications by SEGBP

Description of Benefit Change	Increase or Decrease to Plan Costs
Increase ambulance benefit from \$100 to \$200	Increase
Cover mammograms & pap smears	*
Implement POS payment differential for PPO Plan	Decrease
Add wellness benefits of \$100 for those >15 yrs age	*
Cover birth control prescription drugs	Increase
Remove Supplemental Emergency Accident benefit	Decrease
Increase emergency room ded from \$50 to \$100	Decrease
Add prescription drug PPO network with generic price limits	Decrease
Increase inpatient ded from \$25 to \$50/day 1-5 days	Decrease
Implement managed care for substance abuse	Decrease
Add mid-wife benefits	Decrease
Carve out mental health benefits	Decrease

* Costs may increase initially, however, the Long-Term effects of these benefits could result in a cost decrease.

Without the implementation of the cost saving features in Calendar Year 1993, we estimate that costs for Fiscal Year 1994 would have ranged from \$270 to \$290 per participant. However, the average cost per participant for Fiscal Year 1994 was actually about \$250, implying that the SEGBP saved about \$30 per participant or \$26.9 million in Fiscal Year 1994. We estimated costs without the savings features by linearly extrapolating incurred claims per participant from January, 1993 through July, 1994.

Observations On The Recent Backlog Situation. We were told that in the Spring of 1994, the claims adjudication department increased its staff by 50 employees in order to work down a backlog which had developed during Calendar Year 1993. Claims paid during the twelve months ending October, 1994 were 19% higher than claims paid during the twelve months ending October, 1993, most likely as a result of these operations.

At this time, we do not know what the severity of the backlog was, how long it lasted, and whether or not it still exists. We requested claims inventory reports, from the SEGBP, which are the reports typically used to estimate backlog; however, we have not received any as of the time of this report. In each of our cost scenarios, however, we have assumed that the backlog has been eliminated by or before December, 1994. In addition to the realization of our other assumptions, actual incurred claims will vary from our projections to extent that the backlog has or has not been eliminated.

Projection of Claims Experience

The results of our financial projections under our mid estimate are summarized in Exhibit 9 and our low and high estimates are shown in Exhibits 10 and 11, respectively. Our projections are illustrated graphically in Exhibits 12, 13, and 14. Exhibit 15 is a graph comparing our low, mid, and high projections. Highlights of our projections are summarized in Table 3 below.

Table 3
Summary of the SEGBP's Medical Plan Projected Claims Experience
For Fiscal Years 1995 - 1996
Based Upon M&R's 10/31/94 Valuation and Projection
Mid Estimate

Fiscal Year	Average No. of Participants	No. of Participant Months	Estimated Paid Claims	Incurred Claims	Incurred Cost Per Participant	Cost Trend
1995	76,020	912,241	274,475,359	266,511,208	292.15	1.147
1996	77,356	928,274	284,175,926	286,251,853	308.37	1.056

Note that the costs and cost trends for Fiscal Years 1995 and 1996 are projected to be significantly higher than in Fiscal Years 1993 and 1994. The main reason for our higher projections is that early Fiscal Year 1995 experience through October suggests that claims have already increased by a minimum of 10% over Fiscal Year 1994. We understand that the SEGBP is aware of the higher incurred claims and is currently researching this situation.

Although the cost increases are high, we were not surprised that program costs began to increase in Fiscal Year 1995 since many of the cost reducing changes that were implemented in Fiscal Years 1993 and 1994 were "one time" effects. For example, benefit changes reduce costs only in the year implemented; thereafter, costs increase relative to the increase in medical care inflation. Negotiated provider reimbursement contracts also reduce costs at implementation, however, the structure of the provider agreement, (i.e., fixed prices or percentage discounts) will dictate how fast costs will increase again thereafter. In the SEGBP, the PPO inpatient hospital and physician costs are not subject to inflation, but all other PPO costs and all non-PPO costs are. Thus, unless further restraints on benefits are made or further cost reductions are negotiated with providers, claims costs are expected to continue to increase.

Calculation of Funding Rates for the Current Fiscal Year

We projected that under our mid estimate for Fiscal Year 1995, claims and expenses will exceed total funds produced by the current funding rates by about \$32.5 million on an incurral basis and by \$40.4 million on a cash basis. Table 4 on the following page summarizes our estimated claims, expenses and premiums on both a cash and incurral basis and illustrates our calculation of the premium shortfalls.

Table 4
Estimation of Excess of Claims and Expenses Over Premiums for Fiscal Year 1995
Based Upon M&R's 10/31/94 Valuation and Projection
Mid Estimate

	Incurral Basis	Cash Basis
Claims	\$266,511,208	\$274,475,359
Expenses	17,013,295	17,013,295
Total Outgo	\$283,524,503	\$291,488,654
Premiums	\$251,066,968	\$251,066,968
Outgo Over Premiums	\$ 32,457,535	\$ 40,421,686

In actuality, a portion of these excess claims and expenses will be offset by other revenues which the program receives. Estimates of these revenues were provided to us by the SEGBP staff and consists of:

Interest earnings on cash holdings in the SEGBP's <i>Means of Financing Account</i>	\$550,000 - \$700,000
Excess life insurance premiums over claims and expenses	\$2.0 to \$2.5 million
HMO Administration Fees	\$4.3 to \$4.4 million

Table 5 below restates the excess assuming these other revenues are used to offset costs. To be conservative, the revenues estimates in the table below are on the low end of the estimated ranges.

Table 5
Excess Claims and Expenses over Total Available Revenues for Fiscal Year 1995
Based Upon M&R's 10/31/94 Valuation and Projection
Mid Estimate

	Incurral Basis	Cash Basis
Premiums Over Claims and Expenses (from Table 4)	\$32,457,535	\$40,421,686
Less Interest Earned on Assets	550,000	550,000
Less Excess Life Insurance Premiums	2,000,000	2,000,000
Less HMO Administration Fees	4,300,000	4,300,000
Restated Excess	\$25,607,535	\$33,571,686

On a cash basis, claims and expenses still exceed premiums and other available revenues by \$33.6 million. This amount, should it materialize, would exhaust the \$23.5 million in assets that were reported on-hand as of June 30, 1994, leaving the Program with no assets and causing a delay in payments.

Based upon incurred claims and claims administration expenses *without* revenues from other sources, our funding estimates for Fiscal Year 1995 range from \$298 to \$323 *per participant* with a mid estimate of \$311, and range from \$304 to \$353 per participant with a mid estimate of \$328 for Fiscal Year 1996. These 1995 amounts are about 18% higher than the current funding rate of \$263.72 per participant and similarly higher than the amount that we would have predicted as needed using our database, as we discussed in Section III of our report on the Competitiveness of Premium Rates and Benefits.

These “pure” funding rates are summarized *by tier* in Table 6 below.

Table 6
Summary of Funding Rates by Tier for Fiscal Years 1995 and 1996
Based Upon M&R's 10/31/94 Valuation and Projection
Mid Estimate

	Fiscal Year 1995	Fiscal Year 1996
ACTIVE		
Single	\$188.15	\$224.00
Employee & 1 Dependent	317.81	378.38
Family	388.24	462.23
RETIRED		
Single		
w/o Medicare	\$423.36	\$504.05
w/Medicare	100.76	119.97
Employee & 1 Dependent		
w/o Medicare	\$734.55	\$874.54
1 w/Medicare	513.38	611.23
2 w/Medicare	209.35	249.25
Family		
w/o Medicare	\$903.59	\$1,075.80
1 w/Medicare	668.42	795.81
2 w/Medicare	269.62	321.01

Rates by tier were calculated using the same differentials among tiers as is currently used by the SEGBP.

No margin for adverse deviation has been included in these rates. We assume that the SEGBP will hold surplus to guard against unanticipated costs. If such surplus is not maintained (which it currently is not) it would be appropriate to add a safety margin of 5%-10% to these rates.

Again, we note that our analysis is based on historical claim data that is incomplete with respect to assigning paid claims to their appropriate month of incurral. Further analysis with complete data might yield different results.

IV. Recommendations

The discussion in this section focuses on our recommendations for an improved rate setting methodology, and our recommendations for reserve and surplus levels which we believe are necessary to insure the solvency of the program.

1. Prepare and maintain complete claims experience reports.

A complete claims experience report showing *all* paid claims allocated through *all* incurrence months is necessary to perform a proper claims analysis. With such an experience report, claim payment patterns can be analyzed so as to estimate and more reliably project incurred claims. We discussed the importance of working with incurred claims extensively in Sections II and III.

The claims experience reports should also be accompanied by a history of results from monthly inventory reports which show the number of claims received each month (or week), the number of claims processed, and the total number of claims remaining in-house needing to be processed. If possible, these reports should also include estimates of the average amounts paid per claim, so that total claims dollars reported but not yet paid can be estimated. Inventory reports are invaluable in analyzing claims experience reports as they can show the existence and extent of any claims backlog that may have developed.

2. Perform quarterly claims analyses and projections.

We recommend that the SEGBP perform claims analysis and two year financial projections on a regular basis, (at least quarterly) so as to guard against unpleasant surprises. The results of these analyses can also be used for rate setting, budgeting purposes and other financial planning.

Our recommended analyses and projections include:

- Enrollment analyses and projections
- Estimations of incurred claims and reserves
- Trend analyses and projections
- Cost per participant projections and total claims projections
- Expense analyses and projections.

In doing the ongoing analyses, it is important to keep track of all past assumptions used, especially for incurred claims estimates and cost trends. Thus, as experience emerges, the adequacy of past assumptions can be evaluated and future assumptions can be revised accordingly.

3. Track, analyze and project incurred claims expense by risk group.

Currently, the SEGBP's rates are split into three risk groups: active employees, retirees with Medicare and retirees without Medicare. Within each risk group, rates are further split into three tiers. We believe that this rating method is appropriate given that the risk characteristics of the employees and retirees with and without Medicare are significantly different. While the SEGBP maintains separate paid claim data for these risk groups, we were not provided with any incurred claims data which showed each risk group's costs separately.

To increase the accuracy of the rate setting methodology, we recommend that the incurred claims data be split among the three risk groups so that the costs of these groups can be monitored and projected separately. This split is important in analyzing and projecting claims since the underlying cost characteristics and trends of these groups differ markedly. Also, as the "mix" of these participants changes over time, the underlying cost trends can become obscured and difficult to project if the data is not analyzed separately. Appendix A is a brief example which illustrates the importance of tracking distinct risk groups separately.

4. Hold appropriate reserves for the incurred but unpaid claims liability.

A by-product of the incurred claims calculation is the unpaid claims liability (or "claims reserve"), which is the excess of the incurred claims over the paid claims and which represents the amounts needed to meet incurred claims obligations in the event the program terminates. Our current estimate of the Program's unpaid claim liability as of June 30, 1994 ranges from about \$45.5 to \$48.5 million with a mid estimate of about \$47 million. That is, if the medical benefit program had terminated on June 30, 1994, (under our mid estimate of incurred claims), the Program would still be liable for an estimated \$47 million in claims which were incurred before the termination date. The SEGBP's assets reported in the June 30, 1994 financial statements of \$23.5 million were inadequate to backup the \$47 million claim reserve and the other liabilities of the program (reserves for the life insurance plan and other accounts payable).

Although termination of the medical benefit plan may at first appear unlikely, there is a significant risk in coming years that the plan will gradually "terminate" by having participants transfer into the HMOs or other provider prepayment arrangements, such as the mental health carve out program. For example, if 30% of the participants switch to an HMO, the State will have to pay not only the HMO premiums for these participants, but also will have to eventually pay out 30% of the claims reserve that existed at the time of the transfer. If assets have not been accumulated to back up the claims reserves, a cash infusion will be needed to pay out the remaining claims.

The unpaid claim liability for the program has fluctuated considerably since 1991 during the experience period. The liability reached a high of about \$70 million in December, 1993 and is estimated to be at a relative low of \$38 million (under our mid estimate) this past October (due to the significant draw down of a claims backlog). We recommend that the SEGBP regularly update its claims analysis, estimate the appropriate reserve levels, and then begin a program of rebuilding the assets of the Program needed to back up this unpaid claim liability. This

recommendation is made from an actuarial perspective of how a stand-alone health insurance program should operate. We have not considered, nor have any familiarity with, any special related accounting or legal requirements under which the SEGBP operates.

5. Establish and maintain surplus assets to cover unanticipated claims and expenses.

Although the SEGBP is not a licensed insurance company, it is acting in the role of insurer as it is taking risk for future uncertain expenditures for which it is obligated to pay. Thus, we recommend that the SEGBP establish a surplus (an excess of assets over liabilities) to provide for ongoing solvency in the light of unanticipated events. Example of such events range from the underpricing of funding rates, to catastrophic occurrences, to the default of underlying assets available to pay claims.

Unfortunately, all of the actuarial literature we have seen regarding the appropriate target surplus level for an insurance program relates specifically to insurance companies. We are not aware of any literature or research that relates to self-funded employee benefit programs. However, there are several approaches to surplus that the SEGBP can take, depending upon the degree of comfort desired. We will limit our discussion to two approaches; one which uses a relatively simple insurance industry rule-of-thumb and one which is more sophisticated but which we believe merits consideration in light of recent underfunding problems.

Approach 1 - Industry Rules-of-Thumb. Surplus levels vary among insurance companies because of different needs and goals, but historically, surplus has usually been based upon the size of the groups insured and the volume of medical claims and expenses. Surplus also varies by other considerations such as the type of the benefits offered, existence of negotiated provider contracts, and whether or not reinsurance is in place. Given the size of the group and the volume of claims, a comfortable level of surplus might be 5% to 10% of the estimated incurred claims for the current fiscal year, or about \$14 to \$28 million.

Approach 2 - Risk-Based Capital Approach. Another approach which is more sophisticated but has considerable merit, is to set a level of surplus which is based upon a set of formulas used by regulators to discern under-capitalized insurance companies. This approach might require a higher level of surplus than the first approach. The determination of the surplus under the risk-based capital formulas is beyond the scope of this assignment, and due to the complexity of the risk based capital approach, we have reserved our discussion of it for Appendix B.

Again, this recommendation is made from an actuarial perspective of how a stand-alone health insurance program should operate. We have not considered, nor have any familiarity with, any special related accounting or legal requirements under which the SEGBP operates.

Appendix A
Illustration of the Importance of Monitoring Risk Group's Separately

In Item #3 of Section IV, we recommended that the SEGBP monitor incurred claim data separately for each risk group. The purpose of this appendix is to more thoroughly illustrate the importance of our recommendation.

Consider two hypothetical groups, A and B, with different average medical costs. (See Table A-1 below). Assume that in the current Fiscal Year 1993, Group A has 10,000 members and costs \$1,200 per member per year, and Group B has 5,000 members and costs \$6,000 per member per year. Both groups combined have a total of 15,000 members who cost an average of \$2,800 per member per year.

Let's now assume that we know that both groups will each increase their membership by 500 next year. Thus, in Fiscal Year 1994 Group A will have 10,500 members and Group B will have 5,500 for a total of 16,000 members. Let's also assume that we know that each group's medical costs will increase by 5% for Fiscal Year 1994. Since we know the average cost for each group separately, we can calculate that Group A will cost \$1,260 per member per year or \$13.23 million and Group B will cost \$6,300 per member per year or \$34.65 million for the year, for a total of \$2,993 per member per year or \$47.88 million for both groups combined.

Table A-1
Illustration of Possible Impact on Costs
Due to Change in Enrollment Mix

	No. of Members	Cost per Member	Total Cost	Comments
FY 1993				
Group A	10,000	\$1,200	\$12,000,000	
Group B	5,000	\$6,000	\$30,000,000	
Total	15,000	\$2,800	\$42,000,000	
FY 1994				
Group A	10,500	\$1,260	\$13,230,000	\$1,200 x 1.05 = \$1,260
Group B	5,500	\$6,300	\$34,650,000	\$6,000 x 1.05 = \$6,300
Total	16,000	\$2,993	\$47,880,000	
FY 1993 Combined	15,000	\$2,800	\$42,000,000	
FY 1994 Combined	16,000	\$2,940	\$47,040,000	\$2,800 x 1.05 = \$2,940
			\$ 840,000	Error

The table shows that if we did not have Groups A and B split (see the "Combined" figures), our only option to project claims would be to increase the combined average cost of \$2,800 by 5%, giving us a projected cost of \$2,940 which is \$53 less than the real Fiscal Year 1994 cost. Thus, we would have *underestimated the total costs by \$840,000*. Of course, if Group A had increased its membership by a higher percentage than Group B, we would have underestimated costs for next year. The point is still the same.

Appendix B
Discussion of the Risk-Based Capital Approach to Designating Surplus Levels

Purpose of Surplus

Surplus is an allocation of a benefit program's funds to maintain the program's solvency on an ongoing basis with a reasonable comfort level. This surplus is frequently also referred to as "required surplus", "target surplus", or as a "stabilization reserve". In this discussion, we will refer to this surplus and as a "stabilization reserve".

Any insurance program faces a number of risks which have the potential to threaten its solvency, indicating the need for a stabilization reserve. These risks generally fall into three broad categories:

- Insurance Risks
- Asset Risks
- Operational Risks

We see the most significant risk for the SEGBP to be insurance risks. Basically, the insurance risk is the risk that incurred claims may exceed premiums collected. If claims are greater than premiums, the SEGBP would not have the funds necessary to pay excess claims without some level of surplus to draw upon.

Claims may exceed premiums for a number of reasons, including:

- *Random Statistical Fluctuation.* Funding rates are calculated based on an estimate of the expected average level of claims. Actual claims experience can fall above or below this level.
- *Error in Pricing.* The level of expected claims underlying the premium rate calculations is the result of a complicated estimation process which is usually very dependent on actual experience data and certain assumptions as to how future experience may deviate from historical (due to trend, benefit changes, etc.). Errors in the underlying experience data or actuarial assumptions can lead to premium rates which are inadequate to meet claims.
- *Catastrophes.* It is generally not possible or practical to fully fund an insurance program each year to cover extraordinary claim costs arising out of catastrophes (natural, man-made, or environmental).

A second risk that the SEGBP faces is the risk that assets may be inadequate to fund its liabilities (the "asset risk"). This may occur if assets are in default, or have even simply declined in value, when liquidated to cover liabilities.

Assets may be inadequate for reasons including:

- *Asset Default.* Bonds and mortgages have an inherent default risk which varies with the quality of the asset purchased. Treasury bonds can be thought to be risk-free, while all other obligations have at least a small component of default risk.
- *Asset Mismatch.* The actuarial liabilities associated with this type of insurance program tend to be relatively short-term in nature. If long duration assets such as common stocks, real estate, and long term bonds and mortgages are purchased to cover short term obligations such as claim liabilities, then these assets may need to be liquidated (rather than held to maturity) to meet plan needs. If these assets are liquidated when asset values are in decline, this could result in a shortfall.

Our understanding is that the SEGBP Board has no discretion in how the SEGBP's assets, which are deposited with the State Treasury, are invested.

Finally, the SEGBP faces other operational or administrative risks which indicate the need for a stabilization reserve. Some examples of operational risks include:

- *Lawsuits.* The SEGBP is at risk of lawsuits from, for example, a disgruntled insured who may believe that they have had a claim unjustly denied. Providers, HMOs, and contractors for administrative services are also potential sources of litigation.
- *Administrative Expenses.* Premium revenues are required to fund SEGBP administrative expenses. If administrative expenses exceed budget, or excess claims reduce the amount of premium available to cover expenses, surplus is required as a source of additional funding.

Considerations in Determining the Appropriate Level of Stabilization Reserve

The determination of an "appropriate" stabilization reserve level is not an exact science. The risks described above are not all readily quantifiable, and hence the analysis is based in large part on experience and judgment.

There are a number of factors which influence the determination of an insurance SEGBP's appropriate stabilization reserve level.

First, the degree and nature of the risks undertaken by the plan should be considered. For the insurance risk, this is tied to the type of coverage provided, the frequency of claims, the size of claims, and the relative difficulty of estimating expected claim levels. For example, life insurance coverage has less frequent and larger size claims than health insurance, which causes life claims to fluctuate more from year to year than health claims. Therefore, the life insurance stabilization reserve should be higher (as a percentage of expected claims costs) than is the health insurance stabilization reserve.

For the asset risk, the stabilization reserve level is linked to the quality of assets on the plan balance sheet and the volatility of asset values when interest rates change.

The second factor is the size of the plan. The "law of large numbers" is a statistical concept which states that when there is a larger number of exposures to risk, there is a smaller probability of deviation from the mean. This means that the insurance risk for a large plan is less than it is for a small plan.

A third factor is the degree of conservatism inherent in the premium rates. The more margin built into the premium rates, the less likely it is that claims will exceed premiums, thus lessening the insurance risk. Premium margins could also be used to cover the asset risk.

The fourth and final key factor is the degree of safety desired. Although the possibility of insolvency can never be completely eliminated, it should be intuitively clear that the more surplus an insurance program has, the less likely it is to become insolvent. The safety level is often described in terms of probabilities of insolvency; a common rule of thumb is to set the stabilization reserve level so that the probability of insolvency does not exceed 0.1%, or one year in a thousand. A lower probability of insolvency would require more surplus allocated to the stabilization reserve, and vice versa.

The Insurance Company Parallel

We believe that there is a great deal of similarity between the SEGBP and an insurance company. The nature of the risks undertaken is comparable. Therefore, in our analysis, we have relied heavily on the research which has been done which pertains to insurance companies.

However, there are also important differences between the two which we have taken into consideration in our analysis. These include:

Factors indicating that less surplus is needed for SEGBP than in an insurance company:

- ***Needed Degree of Conservatism.*** An insurance company is an independent business entity, while the SEGBP, in effect, a division of the government of the State of Louisiana. If an insurance company becomes insolvent, state regulators take over the company, shareholders lose most or all of their investment, and management is out of a job. If the SEGBP were to become insolvent, the solution may be as simple as an emergency cash infusion from the State to pay claims and maintain solvency.

- *Need for Growth.* An insurance company needs to issue new business and grow to remain a competitive, viable entity. Growth requires capital investment which is funded out of surplus; therefore, the need for growth indicates that an insurance company may require more surplus than it would otherwise.

Factors indicating that more surplus is needed for SEGBP than in an insurance company:

- *Profit Margins.* Insurance companies calculate premium rates which include a margin for profits. This margin provides an additional buffer against excess claims. In other words, the probability that claims will exceed a premium with profit margins built in is less than a premium with no margins. Therefore, an insurance company would require less surplus than it would if no profit margins were present.
- *Performance Expectations.* Insurance company financial performance is often measured in terms of Return on Equity. Holding more surplus than is necessary increases equity and therefore decreases the reported return rate. This gives an insurance company a motivation to hold less surplus than other analysis may indicate is appropriate. Since the goal of the SEGBP is not profits, no such motivation exists.

The differences noted above notwithstanding, we are recommending stabilization reserve levels which have been derived from formulas originally developed for insurance companies. This is due in part to the fact that there is no other information readily available upon which we can make a recommendation. We also believe that the SEGBP has enough similarities to an insurance company that the existing literature on insurance company surplus levels should serve as a more-than-adequate guide in setting the SEGBP's stabilization reserve levels.

Stabilization Reserve Levels Under the NAIC Life Risk Based Capital Formula

The stabilization reserve levels are derived from the NAIC Life Risk Based Capital Formula. This is a formula used by state insurance regulators as a tool in monitoring insurance company solvency. Risk based capital is defined as "... the amount of capital appropriate for an insurance company to support its overall business operations in light of its size and risk profile. It provides an elastic means of setting the capital requirement in which the degree of risk taken by the insurer is the primary determinant."

The table below summarizes the Risk Based Capital requirements.

Table XII
Risk Based Capital Requirements

Risk Item	Risk Based Capital
<i>Insurance Risk:</i>	
Medical Insurance	15% of the first \$50 million in premium; 7% of the excess
Dental Insurance	12% of premium
Life Insurance	0.12% of the first \$500 million of insurance in force; 0.08% of the next \$4,500 million
Long Term Disability Insurance	25% of the first \$50 million in premium; 15% of the excess; plus 5% of disabled life claim reserves
<i>Asset Risk:</i>	
Government Bonds	No surplus required
Other Bonds	Varies from 0.3% to 30% of book value, depending on quality
Mortgages	Varies from 0.1% to 20%, depending on type of mortgage and standing
Preferred Stocks	5% of statement value if in good standing; 30% otherwise
Common Stocks	30% of statement value
Cash	0.3% of statement value
<i>Operational Risks:</i>	
All Operational Risks	0.5% of health premium plus 2% of life premium

Recommendation

The Risk Based Capital formula produces what may be considered to be a minimum surplus level for an insurance company. If an insurer's surplus is below that level, regulators have reason to further investigate the financial soundness of the company. It is our understanding that insurers have, on average, surplus levels that are 150% to 200% of the RBC minimum.

As noted in the paragraphs describing the differences between an insurance company and the SEGBP, insurance company premium rates are calculated with a built-in profit margin that is not present in the SEGBP's funding rates. This indicates to us that the SEGBP's minimum surplus level should be higher than that which is appropriate for an insurance company.

In addition, the nature of any employee benefit plan is one of continual change. Plans are increasingly adopting more managed care features into their programs. There are ongoing changes in the health care delivery system, including the possibility of some sort of national health care program. We believe that employee benefit programs are in a long term state of flux, indicating the need for higher surplus.

Finally, we would recommend that the stabilization reserve be set at some level higher than the bare minimum level indicated by the RBC formulas.

Exhibit 1
State of Louisiana
State Employees Group Benefits Program
Incurred vs. Paid Claims Per Participant
3 Month Rolling Averages
Based On M&R's 10/31/94 Valuation & Projection
Mid Estimate

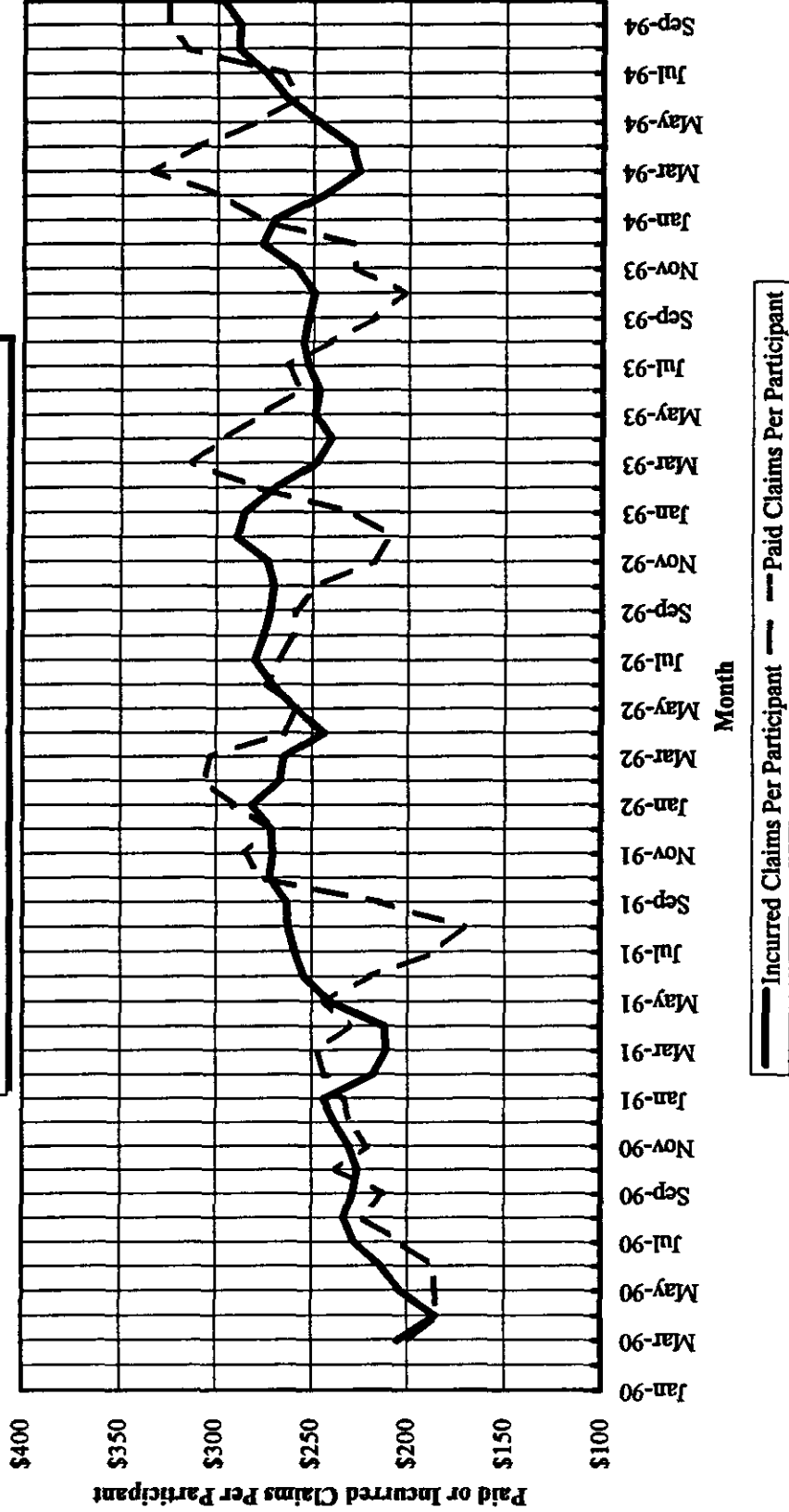


Exhibit 2
State of Louisiana
State Employees Group Benefits Program
Medical Plan for Actives and Retirees
Historical and Projected Enrollment
Based Upon M&R's 10/31/94 Valuation and Projection

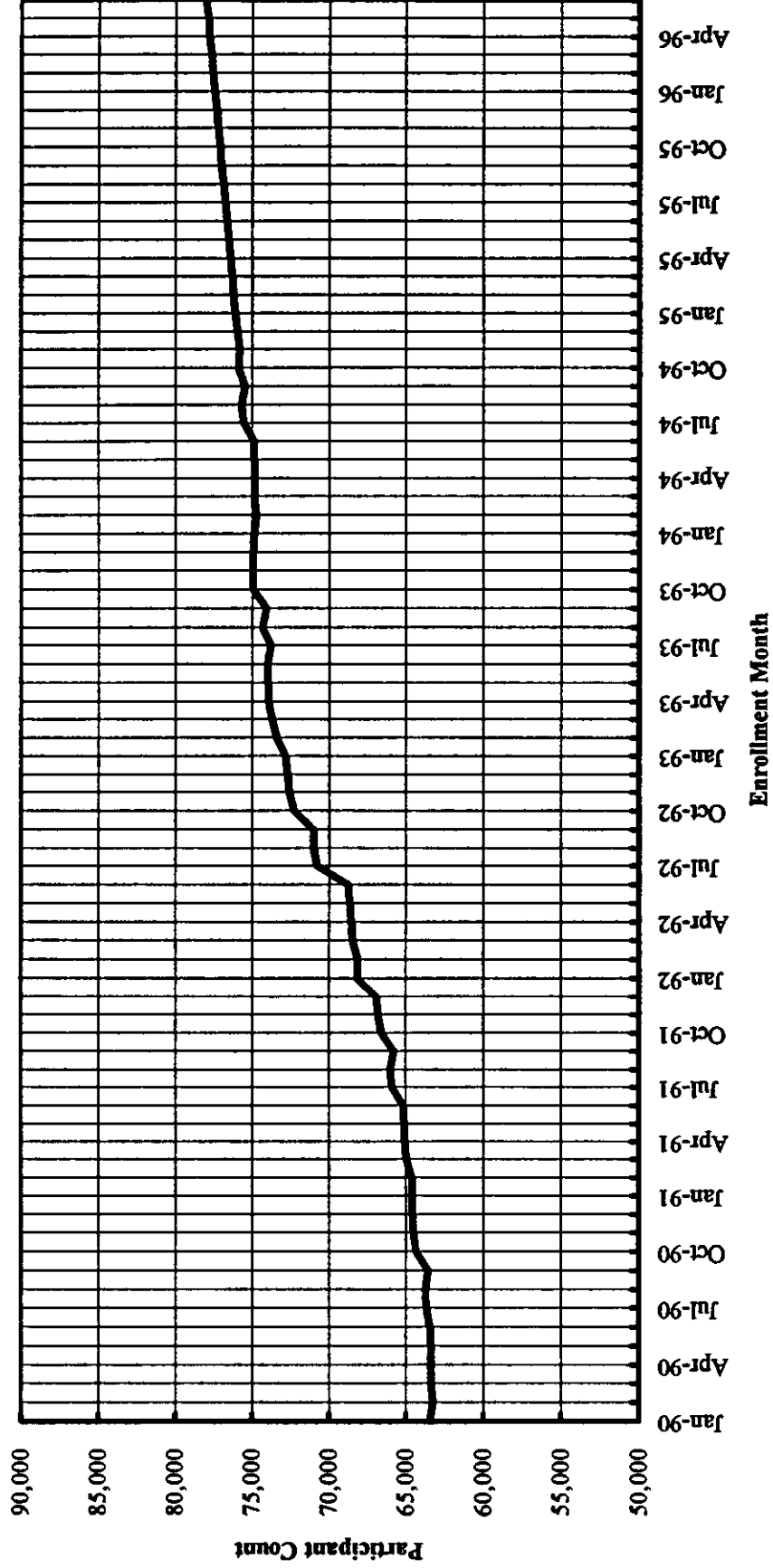


Exhibit 3
State of Louisiana
State Employees Group Benefits Program
Medical Benefits
Estimation of Average Premium Rate per Participant for Fiscal Year 1995

	<u>7/1/94 Funding Rate</u>	<u>Number of Participants</u>	<u>Total Premiums</u>
ACTIVE			
Single	\$ 168.20	18,392	\$ 3,093,534
Ee & 1 Dep	\$ 284.12	12,164	\$ 3,456,036
Family	\$ 347.08	18,097	\$ 6,281,107
RETIREE			
Single			
w/o Medicare	\$ 378.48	4,491	\$ 1,699,754
w/ Medicare	\$ 90.08	10,772	\$ 970,342
Ee & 1 Dependent			
w/o Medicare	\$ 656.68	4,138	\$ 2,717,342
one w/ Medicare	\$ 458.96	1,345	\$ 617,301
two w/ Medicare	\$ 187.16	4,898	\$ 916,710
Family			
w/o Medicare	\$ 807.80	1,214	\$ 980,669
one w/ Medicare	\$ 597.56	164	\$ 98,000
two w/ Medicare	\$ 241.04	103	\$ 24,827
TOTALS	\$ 275.22	75,778	\$ 20,855,621

**Exhibit 4
State of Louisiana Claims Experience
State Employees Group Benefits Plan
Medical Plan for Active and Retiree
Paid Claims Data Provided**

Paid	Incentral Month																						
	Prior	Jan-90	Feb-90	Mar-90	Apr-90	May-90	Jun-90	Jul-90	Aug-90	Sep-90	Oct-90	Nov-90	Dec-90	Prior	Jan-91	Feb-91	Mar-91	Apr-91	May-91	Jun-91	Jul-91	Aug-91	
Jan-90	12604364	31295												18263285	362780								
Feb-90	9747761	2337783												12214858	3087644								
Mar-90	5951352	3983707	2641301	214897										7727377	2814051	3095044	2199115						
Apr-90	2832248	2689064	2257381	2150928	49747									4073486	3462343	3377514	4176889	438031					
May-90	1934188	2108867	2168826	3385140	2805402	136874								2178432	1388838	2269535	5189485	6257852	634911				
Jun-90	1849628	1170116	1398417	2379672	3236377	2919300	88238							1286883	861344	6707799	1227853	2883207	2296649	63370			
Jul-90	1122026	1082699	915476	1443602	2742876	3263289	2541055	96118	702516					729187	465518	336704	716371	2008726	4039063	528863	75395		
Aug-90	290484	757511	414853	1202683	1372655	2797954	4618785	4221600						1165538	1056840	463381	725884	1441239	4428619	598219	457497	71082	
Sep-90	81782	596970	258325	483370	547132	1478629	2200183	2847039	2513365	56769				75013	827094	303111	629687	1382548	2227117	4975051	6391305	1073333	
Oct-90	-275649	635159	279255	364566	699347	2001469	2110170	3804987	3131815	149054				-148128	827412	278720	418879	734983	1504647	2187000	5491991	7961414	
Nov-90	-98737	399203	116409	308583	361686	418451	740207	1124783	2365659	3288142	4088912	388018		-357164	288000	162335	202208	263964	543097	880997	1487887	3337695	
Dec-90	-122779	354292	120037	158428	176782	307916	483891	938648	1662331	2184287	2964657	3569141	226643	-231392	291332	93095	118751	164312	287658	517813	1020123	1756915	
Jan-91																							
Feb-91																							
Mar-91																							
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May-94																							
Jun-94																							
Jul-94																							
Aug-94																							
Sep-94																							
Oct-94																							
Totals	35936608	16146666	10611165	12091869	11992024	13325882	12784529	13033095	12229227	8661013	7200623	3957159	226643	46972915	15913596	11283843	13626972	15634656	15643761	14750195	14924198	14364237	

Exhibit 6
State of Louisiana
State Employees Group Benefits Program
Historical Medical Benefits Experience
Based Upon M&R's 10/31/94 Valuation
Mid Estimate

Incurral Month	Participant Months	Paid Claims Sorted		Estimated Incurred Claims	Recast Reserve
		by Paid Month	by Incurred Month		
Jan-90	63,429	\$12,635,659	\$16,144,526	\$16,144,526	\$39,445,725
Feb-90	63,233	12,126,169	10,625,066	10,625,066	37,944,622
Mar-90	63,362	12,791,257	12,172,785	12,172,785	37,326,150
Apr-90	63,350	9,999,368	12,367,670	12,367,670	39,694,452
May-90	63,357	12,539,297	14,171,910	14,171,910	41,327,065
Jun-90	63,444	13,041,748	14,131,691	14,131,691	42,417,008
Jul-90	63,676	13,209,141	15,044,991	15,044,991	44,252,858
Aug-90	63,746	16,379,041	15,254,507	15,254,507	43,128,324
Sep-90	63,549	11,063,784	13,351,536	13,351,536	45,416,076
Oct-90	64,341	17,885,749	14,722,398	14,722,398	42,252,724
Nov-90	64,491	13,499,316	16,258,562	16,258,562	45,011,971
Dec-90	64,560	13,026,274	14,987,468	14,987,468	46,973,165
Jan-91	64,577	18,625,985	15,910,610	15,910,610	44,257,790
Feb-91	64,604	15,454,067	11,303,507	11,303,507	40,107,230
Mar-91	64,946	13,856,387	13,738,997	13,738,997	39,989,840
Apr-91	65,056	15,515,464	16,162,830	16,162,830	40,637,206
May-91	65,084	18,121,091	17,046,880	17,046,880	39,562,995
Jun-91	65,166	9,290,506	16,385,218	16,385,218	46,657,707
Jul-91	65,872	8,970,921	17,284,509	17,284,509	54,971,295
Aug-91	65,986	15,388,301	17,959,661	17,959,661	57,542,655
Sep-91	65,755	18,052,664	16,777,901	16,777,901	56,267,892
Oct-91	66,550	21,424,134	19,172,078	19,172,078	54,015,835
Nov-91	66,790	17,150,199	17,797,966	17,797,966	54,663,603
Dec-91	66,913	15,825,700	17,268,230	17,268,230	56,106,133
Jan-92	68,144	25,759,357	21,745,556	21,745,556	52,092,332
Feb-92	68,099	20,597,163	15,161,342	15,161,342	46,656,511
Mar-92	68,421	15,618,261	17,231,583	17,231,583	48,269,833
Apr-92	68,516	18,019,268	17,508,002	17,508,002	47,758,567
May-92	68,612	19,457,238	18,461,683	18,461,683	46,763,012
Jun-92	68,746	18,738,286	19,729,590	19,729,590	47,754,316
Jul-92	70,728	17,596,909	19,961,296	19,961,296	50,118,703
Aug-92	70,957	18,211,412	18,192,061	18,192,061	50,099,352
Sep-92	71,009	19,212,457	19,662,104	19,662,104	50,548,999
Oct-92	72,226	15,714,915	19,885,010	19,885,010	54,719,093
Nov-92	72,530	12,163,128	19,366,329	19,366,329	61,922,295
Dec-92	72,668	17,585,931	23,644,196	23,644,196	67,980,560
Jan-93	72,795	20,260,255	19,224,470	19,224,470	66,944,775
Feb-93	73,355	23,184,484	16,084,866	16,084,866	59,845,157
Mar-93	73,673	25,243,786	19,193,210	19,193,210	53,794,580
Apr-93	73,882	17,015,618	17,773,118	17,773,118	54,552,081
May-93	73,930	19,051,823	18,140,818	18,140,818	53,641,076
Jun-93	73,981	20,741,136	18,777,024	18,777,024	51,676,964

Exhibit 6
State of Louisiana
State Employees Group Benefits Program
Historical Medical Benefits Experience
Based Upon M&R's 10/31/94 Valuation
Mid Estimate

Incurral Month	Participant Months	Paid Claims Sorted		Estimated Incurred Claims	Recast Reserve
		by Paid Month	by Incurred Month		
<i>Jul-93</i>	73,758	18,408,276	18,945,479	18,945,479	52,214,167
<i>Aug-93</i>	74,300	14,302,647	18,832,400	18,832,400	56,743,920
<i>Sep-93</i>	74,027	15,608,104	18,268,089	18,268,089	59,403,906
<i>Oct-93</i>	74,909	15,369,898	18,516,563	18,516,563	62,550,570
<i>Nov-93</i>	74,916	19,947,027	21,053,385	21,064,550	63,668,094
<i>Dec-93</i>	74,899	16,308,211	22,591,555	22,520,412	69,880,295
<i>Jan-94</i>	74,835	26,360,280	17,535,899	17,104,643	60,624,658
<i>Feb-94</i>	74,672	23,994,490	15,720,049	15,329,111	51,959,279
<i>Mar-94</i>	74,849	24,406,031	18,362,631	18,240,916	45,794,163
<i>Apr-94</i>	74,803	21,313,651	17,776,046	17,967,516	42,448,028
<i>May-94</i>	74,825	17,199,341	18,413,089	19,217,876	44,466,562
<i>Jun-94</i>	74,847	19,426,088	20,710,697	22,033,737	47,074,211
Totals	3,729,749	922,687,693	932,509,638	933,825,046	2,711,936,376
<i>FY 91</i>	773,796	175,926,805	180,167,505	180,167,505	518,247,884
<i>FY 92</i>	808,404	215,001,492	216,098,100	216,098,100	622,861,983
<i>FY 93</i>	871,734	225,981,854	229,904,502	229,904,502	675,843,633
<i>FY 94</i>	895,640	232,644,044	226,725,883	228,041,291	656,827,853
<i>CY 90</i>	764,538	158,196,803	169,233,110	169,233,110	505,190,140
<i>CY 91</i>	787,299	187,675,419	196,808,387	196,808,387	584,780,180
<i>CY 92</i>	840,656	218,674,325	230,548,752	230,548,752	624,683,572
<i>CY 93</i>	888,425	225,441,265	227,400,978	227,341,000	704,915,584
<i>CY 94*</i>	448,831	132,699,881	108,518,411	109,893,797	292,366,901

Exhibit 6
State of Louisiana
State Employees Group Benefits Program
Historical Medical Benefits Experience
Based Upon M&R's 10/31/94 Valuation
Mid Estimate

Incurred Month	Estimated Incurred Claims Per Participant				Trends In Estimated Incurred Claims Per Participant			
	1 Month	3 Month	6 Month	12 Month	1 Month	3 Month	6 Month	12 Month
Jan-90	\$254.53							
Feb-90	168.03							
Mar-90	192.11	\$204.93						
Apr-90	195.23	185.14						
May-90	223.68	203.68						
Jun-90	222.74	213.89	\$209.41					
Jul-90	236.27	227.58	206.39					
Aug-90	239.30	232.79	218.26					
Sep-90	210.10	228.57	221.25					
Oct-90	228.82	226.10	226.84					
Nov-90	252.11	230.44	231.61					
Dec-90	232.15	237.70	233.16	\$221.35				
Jan-91	246.38	243.54	234.87	220.72	0.968			
Feb-91	174.97	217.82	224.11	221.21	1.041			
Mar-91	211.54	210.96	224.30	222.79	1.101	1.029		
Apr-91	248.44	211.74	227.60	227.22	1.273	1.144		
May-91	261.92	240.66	229.28	230.44	1.171	1.182		
Jun-91	251.44	253.93	232.51	232.84	1.129	1.187	1.110	
Jul-91	262.40	258.60	235.26	235.06	1.111	1.136	1.140	
Aug-91	272.17	262.05	251.40	237.86	1.137	1.126	1.152	
Sep-91	255.16	263.25	258.62	241.58	1.214	1.152	1.169	
Oct-91	288.09	271.87	265.27	246.58	1.259	1.202	1.169	
Nov-91	266.48	269.96	266.02	247.82	1.057	1.171	1.149	
Dec-91	258.07	270.85	267.08	249.98	1.112	1.139	1.145	1.129
Jan-92	319.11	281.46	276.71	256.23	1.295	1.156	1.178	1.161
Feb-92	222.64	266.67	268.30	259.96	1.272	1.224	1.197	1.175
Mar-92	251.85	264.52	267.65	263.20	1.191	1.254	1.193	1.181
Apr-92	255.53	243.38	262.27	263.75	1.029	1.149	1.152	1.161
May-92	269.07	258.83	262.72	264.35	1.027	1.075	1.146	1.147
Jun-92	286.99	270.55	267.55	267.31	1.141	1.065	1.151	1.148
Jul-92	282.23	279.46	261.55	269.01	1.076	1.081	1.112	1.144
Aug-92	256.38	275.07	267.04	267.66	0.942	1.050	1.062	1.125
Sep-92	276.90	271.82	271.20	269.45	1.085	1.033	1.049	1.115
Oct-92	275.32	269.57	274.44	268.47	0.956	0.992	1.035	1.089
Nov-92	267.01	273.04	274.04	268.50	1.002	1.011	1.030	1.083
Dec-92	325.37	289.28	280.65	274.25	1.261	1.068	1.051	1.097
Jan-93	264.09	285.49	277.60	269.76	0.828	1.014	1.003	1.053
Feb-93	219.27	269.42	271.22	269.18	0.985	1.010	1.011	1.035
Mar-93	260.52	247.94	268.49	269.82	1.034	0.937	1.003	1.025
Apr-93	240.56	240.15	262.67	268.44	0.941	0.987	1.002	1.018
May-93	245.38	248.81	259.05	266.43	0.912	0.961	0.986	1.008
Jun-93	253.81	246.59	247.26	263.73	0.884	0.911	0.924	0.987

Exhibit 6
State of Louisiana
State Employees Group Benefits Program
Historical Medical Benefits Experience
Based Upon M&R's 10/31/94 Valuation
Mid Estimate

Incurral Month	Estimated Incurred Claims Per Participant				Trends In Estimated Incurred Claims Per Participant			
	1 Month	3 Month	6 Month	12 Month	1 Month	3 Month	6 Month	12 Month
<i>Jul-93</i>	256.86	252.01	246.09	261.66	0.910	0.902	0.941	0.973
<i>Aug-93</i>	253.46	254.71	251.76	261.39	0.989	0.926	0.943	0.977
<i>Sep-93</i>	246.78	252.36	249.48	258.91	0.891	0.928	0.920	0.961
<i>Oct-93</i>	247.19	249.14	250.57	256.58	0.898	0.924	0.913	0.956
<i>Nov-93</i>	281.18	258.43	256.57	257.80	1.053	0.946	0.936	0.960
<i>Dec-93</i>	300.68	276.35	264.43	255.89	0.924	0.955	0.942	0.933
<i>Jan-94</i>	228.56	270.15	259.68	252.93	0.865	0.946	0.935	0.938
<i>Feb-94</i>	205.29	244.89	251.65	251.70	0.936	0.909	0.928	0.935
<i>Mar-94</i>	243.70	225.87	251.13	250.31	0.935	0.911	0.935	0.928
<i>Apr-94</i>	240.20	229.75	249.96	250.27	0.998	0.957	0.952	0.932
<i>May-94</i>	256.84	246.91	245.90	251.22	1.047	0.992	0.949	0.943
<i>Jun-94</i>	294.38	263.81	244.84	254.61	1.160	1.070	0.990	0.965
Totals								
<i>FY 91</i>				232.84				
<i>FY 92</i>				267.31				1.148
<i>FY 93</i>				263.73				0.987
<i>FY 94</i>				254.61				0.965
<i>CY 90</i>				221.35				
<i>CY 91</i>				249.98				1.129
<i>CY 92</i>				274.25				1.097
<i>CY 93</i>				255.89				0.933
<i>CY 94*</i>				244.84				0.916

Exhibit 7
State of Louisiana
State Employees Group Benefits Program
Historical Medical Benefits Experience
Based Upon M&R's 10/31/94 Valuation
Low Estimate

Incurral Month	Participant Months	Paid Claims Sorted		Estimated Incurred Claims	Recast Reserve
		by Paid Month	by Incurred Month		
Jan-90	63,429	\$12,635,659	\$16,144,526	\$16,144,526	\$39,445,725
Feb-90	63,233	12,126,169	10,625,066	10,625,066	37,944,622
Mar-90	63,362	12,791,257	12,172,785	12,172,785	37,326,150
Apr-90	63,350	9,999,368	12,367,670	12,367,670	39,694,452
May-90	63,357	12,539,297	14,171,910	14,171,910	41,327,065
Jun-90	63,444	13,041,748	14,131,691	14,131,691	42,417,008
Jul-90	63,676	13,209,141	15,044,991	15,044,991	44,252,858
Aug-90	63,746	16,379,041	15,254,507	15,254,507	43,128,324
Sep-90	63,549	11,063,784	13,351,536	13,351,536	45,416,076
Oct-90	64,341	17,885,749	14,722,398	14,722,398	42,252,724
Nov-90	64,491	13,499,316	16,258,562	16,258,562	45,011,971
Dec-90	64,560	13,026,274	14,987,468	14,987,468	46,973,165
Jan-91	64,577	18,625,985	15,910,610	15,910,610	44,257,790
Feb-91	64,604	15,454,067	11,303,507	11,303,507	40,107,230
Mar-91	64,946	13,856,387	13,738,997	13,738,997	39,989,840
Apr-91	65,056	15,515,464	16,162,830	16,162,830	40,637,206
May-91	65,084	18,121,091	17,046,880	17,046,880	39,562,995
Jun-91	65,166	9,290,506	16,385,218	16,385,218	46,657,707
Jul-91	65,872	8,970,921	17,284,509	17,284,509	54,971,295
Aug-91	65,986	15,388,301	17,959,661	17,959,661	57,542,655
Sep-91	65,755	18,052,664	16,777,901	16,777,901	56,267,892
Oct-91	66,550	21,424,134	19,172,078	19,172,078	54,015,835
Nov-91	66,790	17,150,199	17,797,966	17,797,966	54,663,603
Dec-91	66,913	15,825,700	17,268,230	17,268,230	56,106,133
Jan-92	68,144	25,759,357	21,745,556	21,745,556	52,092,332
Feb-92	68,099	20,597,163	15,161,342	15,161,342	46,656,511
Mar-92	68,421	15,618,261	17,231,583	17,231,583	48,269,833
Apr-92	68,516	18,019,268	17,508,002	17,508,002	47,758,567
May-92	68,612	19,457,238	18,461,683	18,461,683	46,763,012
Jun-92	68,746	18,738,286	19,729,590	19,729,590	47,754,316
Jul-92	70,728	17,596,909	19,961,296	19,961,296	50,118,703
Aug-92	70,957	18,211,412	18,192,061	18,192,061	50,099,352
Sep-92	71,009	19,212,457	19,662,104	19,662,104	50,548,999
Oct-92	72,226	15,714,915	19,885,010	19,885,010	54,719,093
Nov-92	72,530	12,163,128	19,366,329	19,366,329	61,922,295
Dec-92	72,668	17,585,931	23,644,196	23,644,196	67,980,560
Jan-93	72,795	20,260,255	19,224,470	19,224,470	66,944,775
Feb-93	73,355	23,184,484	16,084,866	16,084,866	59,845,157
Mar-93	73,673	25,243,786	19,193,210	19,193,210	53,794,580
Apr-93	73,882	17,015,618	17,773,118	17,773,118	54,552,081
May-93	73,930	19,051,823	18,140,818	18,140,818	53,641,076
Jun-93	73,981	20,741,136	18,777,024	18,777,024	51,676,964

Exhibit 7
State of Louisiana
State Employees Group Benefits Program
Historical Medical Benefits Experience
Based Upon M&R's 10/31/94 Valuation
Low Estimate

Incurral Month	Participant Months	Paid Claims Sorted		Estimated Incurred Claims	Recast Reserve
		by Paid Month	by Incurred Month		
<i>Jul-93</i>	73,758	18,408,276	18,945,479	18,945,479	52,214,167
<i>Aug-93</i>	74,300	14,302,647	18,832,400	18,832,400	56,743,920
<i>Sep-93</i>	74,027	15,608,104	18,268,089	18,268,089	59,403,906
<i>Oct-93</i>	74,909	15,369,898	18,516,563	18,516,563	62,550,570
<i>Nov-93</i>	74,916	19,947,027	21,053,385	21,063,434	63,666,977
<i>Dec-93</i>	74,899	16,308,211	22,591,555	22,499,069	69,857,835
<i>Jan-94</i>	74,835	26,360,280	17,535,899	16,975,266	60,472,821
<i>Feb-94</i>	74,672	23,994,490	15,720,049	15,016,361	51,494,692
<i>Mar-94</i>	74,849	24,406,031	18,362,631	18,204,401	45,293,062
<i>Apr-94</i>	74,803	21,313,651	17,776,046	17,929,222	41,908,633
<i>May-94</i>	74,825	17,199,341	18,413,089	18,887,397	43,596,688
<i>Jun-94</i>	74,847	19,426,088	20,710,697	21,401,433	45,572,033
Totals	3,729,749	922,687,693	932,509,638	932,322,868	2,707,883,828
<i>FY 91</i>	773,796	175,926,805	180,167,505	180,167,505	518,247,884
<i>FY 92</i>	808,404	215,001,492	216,098,100	216,098,100	622,861,983
<i>FY 93</i>	871,734	225,981,854	229,904,502	229,904,502	675,843,633
<i>FY 94</i>	895,640	232,644,044	226,725,883	226,539,113	652,775,305
<i>CY 90</i>	764,538	158,196,803	169,233,110	169,233,110	505,190,140
<i>CY 91</i>	787,299	187,675,419	196,808,387	196,808,387	584,780,180
<i>CY 92</i>	840,656	218,674,325	230,548,752	230,548,752	624,683,572
<i>CY 93</i>	888,425	225,441,265	227,400,978	227,318,540	704,892,008

Exhibit 7
State of Louisiana
State Employees Group Benefits Program
Historical Medical Benefits Experience
Based Upon M&R's 10/31/94 Valuation
Low Estimate

Incurrence Month	Estimated Incurred Claims Per Participant				Trends In Estimated Incurred Claims Per Participant			
	1 Month	3 Month	6 Month	12 Month	1 Month	3 Month	6 Month	12 Month
Jan-90	\$ 254.53							
Feb-90	168.03							
Mar-90	192.11	\$ 204.93						
Apr-90	195.23	185.14						
May-90	223.68	203.68						
Jun-90	222.74	213.89	\$ 209.41					
Jul-90	236.27	227.58	206.39					
Aug-90	239.30	232.79	218.26					
Sep-90	210.10	228.57	221.25					
Oct-90	228.82	226.10	226.84					
Nov-90	252.11	230.44	231.61					
Dec-90	232.15	237.70	233.16	\$ 221.35				
Jan-91	246.38	243.54	234.87	220.72	0.968			
Feb-91	174.97	217.82	224.11	221.21	1.041			
Mar-91	211.54	210.96	224.30	222.79	1.101	1.029		
Apr-91	248.44	211.74	227.60	227.22	1.273	1.144		
May-91	261.92	240.66	229.28	230.44	1.171	1.182		
Jun-91	251.44	253.93	232.51	232.84	1.129	1.187	1.110	
Jul-91	262.40	258.60	235.26	235.06	1.111	1.136	1.140	
Aug-91	272.17	262.05	251.40	237.86	1.137	1.126	1.152	
Sep-91	255.16	263.25	258.62	241.58	1.214	1.152	1.169	
Oct-91	288.09	271.87	265.27	246.58	1.259	1.202	1.169	
Nov-91	266.48	269.96	266.02	247.82	1.057	1.171	1.149	
Dec-91	258.07	270.85	267.08	249.98	1.112	1.139	1.145	1.129
Jan-92	319.11	281.46	276.71	256.23	1.295	1.156	1.178	1.161
Feb-92	222.64	266.67	268.30	259.96	1.272	1.224	1.197	1.175
Mar-92	251.85	264.52	267.65	263.20	1.191	1.254	1.193	1.181
Apr-92	255.53	243.38	262.27	263.75	1.029	1.149	1.152	1.161
May-92	269.07	258.83	262.72	264.35	1.027	1.075	1.146	1.147
Jun-92	286.99	270.55	267.55	267.31	1.141	1.065	1.151	1.148
Jul-92	282.23	279.46	261.55	269.01	1.076	1.081	1.112	1.144
Aug-92	256.38	275.07	267.04	267.66	0.942	1.050	1.062	1.125
Sep-92	276.90	271.82	271.20	269.45	1.085	1.033	1.049	1.115
Oct-92	275.32	269.57	274.44	268.47	0.956	0.992	1.035	1.089
Nov-92	267.01	273.04	274.04	268.50	1.002	1.011	1.030	1.083
Dec-92	325.37	289.28	280.65	274.25	1.261	1.068	1.051	1.097
Jan-93	264.09	285.49	277.60	269.76	0.828	1.014	1.003	1.053
Feb-93	219.27	269.42	271.22	269.18	0.985	1.010	1.011	1.035
Mar-93	260.52	247.94	268.49	269.82	1.034	0.937	1.003	1.025
Apr-93	240.56	240.15	262.67	268.44	0.941	0.987	1.002	1.018
May-93	245.38	248.81	259.05	266.43	0.912	0.961	0.986	1.008
Jun-93	253.81	246.59	247.26	263.73	0.884	0.911	0.924	0.987

Exhibit 7
State of Louisiana
State Employees Group Benefits Program
Historical Medical Benefits Experience
Based Upon M&R's 10/31/94 Valuation
Low Estimate

Incurral Month	Estimated Incurred Claims Per Participant				Trends In Estimated Incurred Claims Per Participant			
	1 Month	3 Month	6 Month	12 Month	1 Month	3 Month	6 Month	12 Month
<i>Jul-93</i>	256.86	252.01	246.09	261.66	0.910	0.902	0.941	0.973
<i>Aug-93</i>	253.46	254.71	251.76	261.39	0.989	0.926	0.943	0.977
<i>Sep-93</i>	246.78	252.36	249.48	258.91	0.891	0.928	0.920	0.961
<i>Oct-93</i>	247.19	249.14	250.57	256.58	0.898	0.924	0.913	0.956
<i>Nov-93</i>	281.16	258.42	256.57	257.80	1.053	0.946	0.936	0.960
<i>Dec-93</i>	300.39	276.25	264.37	255.87	0.923	0.955	0.942	0.933
<i>Jan-94</i>	226.84	269.48	259.34	252.75	0.859	0.944	0.934	0.937
<i>Feb-94</i>	201.10	242.82	250.61	251.18	0.917	0.901	0.924	0.933
<i>Mar-94</i>	243.22	223.73	250.01	249.75	0.934	0.902	0.931	0.926
<i>Apr-94</i>	239.69	228.02	248.76	249.66	0.996	0.949	0.947	0.930
<i>May-94</i>	252.42	245.11	243.96	250.25	1.029	0.985	0.942	0.939
<i>Jun-94</i>	285.94	259.35	241.55	252.94	1.127	1.052	0.977	0.959
Totals								
<i>FY 91</i>				232.84				
<i>FY 92</i>				267.31				1.148
<i>FY 93</i>				263.73				0.987
<i>FY 94</i>				252.94				0.959
<i>CY 90</i>				221.35				
<i>CY 91</i>				249.98				1.129
<i>CY 92</i>				274.25				1.097
<i>CY 93</i>				255.87				0.933

Exhibit 8
State of Louisiana
State Employees Group Benefits Program
Historical Medical Benefits Experience
Based Upon M&R's 10/31/94 Valuation
High Estimate

Incurral Month	Participant Months	Paid Claims Sorted		Estimated Incurred Claims	Recast Reserve
		by Paid Month	by Incurred Month		
Jan-90	63,429	\$12,635,659	\$16,144,526	\$16,144,526	\$39,445,725
Feb-90	63,233	12,126,169	10,625,066	10,625,066	37,944,622
Mar-90	63,362	12,791,257	12,172,785	12,172,785	37,326,150
Apr-90	63,350	9,999,368	12,367,670	12,367,670	39,694,452
May-90	63,357	12,539,297	14,171,910	14,171,910	41,327,065
Jun-90	63,444	13,041,748	14,131,691	14,131,691	42,417,008
Jul-90	63,676	13,209,141	15,044,991	15,044,991	44,252,858
Aug-90	63,746	16,379,041	15,254,507	15,254,507	43,128,324
Sep-90	63,549	11,063,784	13,351,536	13,351,536	45,416,076
Oct-90	64,341	17,885,749	14,722,398	14,722,398	42,252,724
Nov-90	64,491	13,499,316	16,258,562	16,258,562	45,011,971
Dec-90	64,560	13,026,274	14,987,468	14,987,468	46,973,165
Jan-91	64,577	18,625,985	15,910,610	15,910,610	44,257,790
Feb-91	64,604	15,454,067	11,303,507	11,303,507	40,107,230
Mar-91	64,946	13,856,387	13,738,997	13,738,997	39,989,840
Apr-91	65,056	15,515,464	16,162,830	16,162,830	40,637,206
May-91	65,084	18,121,091	17,046,880	17,046,880	39,562,995
Jun-91	65,166	9,290,506	16,385,218	16,385,218	46,657,707
Jul-91	65,872	8,970,921	17,284,509	17,284,509	54,971,295
Aug-91	65,986	15,388,301	17,959,661	17,959,661	57,542,655
Sep-91	65,755	18,052,664	16,777,901	16,777,901	56,267,892
Oct-91	66,550	21,424,134	19,172,078	19,172,078	54,015,835
Nov-91	66,790	17,150,199	17,797,966	17,797,966	54,663,603
Dec-91	66,913	15,825,700	17,268,230	17,268,230	56,106,133
Jan-92	68,144	25,759,357	21,745,556	21,745,556	52,092,332
Feb-92	68,099	20,597,163	15,161,342	15,161,342	46,656,511
Mar-92	68,421	15,618,261	17,231,583	17,231,583	48,269,833
Apr-92	68,516	18,019,268	17,508,002	17,508,002	47,758,567
May-92	68,612	19,457,238	18,461,683	18,461,683	46,763,012
Jun-92	68,746	18,738,286	19,729,590	19,729,590	47,754,316
Jul-92	70,728	17,596,909	19,961,296	19,961,296	50,118,703
Aug-92	70,957	18,211,412	18,192,061	18,192,061	50,099,352
Sep-92	71,009	19,212,457	19,662,104	19,662,104	50,548,999
Oct-92	72,226	15,714,915	19,885,010	19,885,010	54,719,093
Nov-92	72,530	12,163,128	19,366,329	19,366,329	61,922,295
Dec-92	72,668	17,585,931	23,644,196	23,644,196	67,980,560
Jan-93	72,795	20,260,255	19,224,470	19,224,470	66,944,775
Feb-93	73,355	23,184,484	16,084,866	16,084,866	59,845,157
Mar-93	73,673	25,243,786	19,193,210	19,193,210	53,794,580
Apr-93	73,882	17,015,618	17,773,118	17,773,118	54,552,081
May-93	73,930	19,051,823	18,140,818	18,140,818	53,641,076
Jun-93	73,981	20,741,136	18,777,024	18,777,024	51,676,964

Exhibit 8
State of Louisiana
State Employees Group Benefits Program
Historical Medical Benefits Experience
Based Upon M&R's 10/31/94 Valuation
High Estimate

Incurral Month	Participant Months	Paid Claims Sorted		Estimated Incurred Claims	Recast Reserve
		by Paid Month	by Incurred Month		
<i>Jul-93</i>	73,758	18,408,276	18,945,479	18,945,479	52,214,167
<i>Aug-93</i>	74,300	14,302,647	18,832,400	18,832,400	56,743,920
<i>Sep-93</i>	74,027	15,608,104	18,268,089	18,268,089	59,403,906
<i>Oct-93</i>	74,909	15,369,898	18,516,563	18,516,563	62,550,570
<i>Nov-93</i>	74,916	19,947,027	21,053,385	21,065,667	63,669,210
<i>Dec-93</i>	74,899	16,308,211	22,591,555	22,541,755	69,902,754
<i>Jan-94</i>	74,835	26,360,280	17,535,899	17,234,020	60,776,494
<i>Feb-94</i>	74,672	23,994,490	15,720,049	15,641,861	52,423,866
<i>Mar-94</i>	74,849	24,406,031	18,362,631	18,277,430	46,295,265
<i>Apr-94</i>	74,803	21,313,651	17,776,046	18,005,809	42,987,423
<i>May-94</i>	74,825	17,199,341	18,413,089	19,548,354	45,336,436
<i>Jun-94</i>	74,847	19,426,088	20,710,697	22,666,040	48,576,389
Totals	3,729,749	922,687,693	932,509,638	935,327,224	2,715,988,925
<i>FY 91</i>	773,796	175,926,805	180,167,505	180,167,505	518,247,884
<i>FY 92</i>	808,404	215,001,492	216,098,100	216,098,100	622,861,983
<i>FY 93</i>	871,734	225,981,854	229,904,502	229,904,502	675,843,633
<i>FY 94</i>	895,640	232,644,044	226,725,883	229,543,469	660,880,401
<i>CY 90</i>	764,538	158,196,803	169,233,110	169,233,110	505,190,140
<i>CY 91</i>	787,299	187,675,419	196,808,387	196,808,387	584,780,180
<i>CY 92</i>	840,656	218,674,325	230,548,752	230,548,752	624,683,572
<i>CY 93</i>	888,425	225,441,265	227,400,978	227,363,459	704,939,160

Exhibit 8
State of Louisiana
State Employees Group Benefits Program
Historical Medical Benefits Experience
Based Upon M&R's 10/31/94 Valuation
High Estimate

Incurral Month	Estimated Incurred Claims Per Participant				Trends In Estimated Incurred Claims Per Participant			
	1 Month	3 Month	6 Month	12 Month	1 Month	3 Month	6 Month	12 Month
Jan-90	\$ 254.53							
Feb-90	168.03							
Mar-90	192.11	\$ 204.93						
Apr-90	195.23	185.14						
May-90	223.68	203.68						
Jun-90	222.74	213.89	\$ 209.41					
Jul-90	236.27	227.58	206.39					
Aug-90	239.30	232.79	218.26					
Sep-90	210.10	228.57	221.25					
Oct-90	228.82	226.10	226.84					
Nov-90	252.11	230.44	231.61					
Dec-90	232.15	237.70	233.16	\$ 221.35				
Jan-91	246.38	243.54	234.87	220.72	0.968			
Feb-91	174.97	217.82	224.11	221.21	1.041			
Mar-91	211.54	210.96	224.30	222.79	1.101	1.029		
Apr-91	248.44	211.74	227.60	227.22	1.273	1.144		
May-91	261.92	240.66	229.28	230.44	1.171	1.182		
Jun-91	251.44	253.93	232.51	232.84	1.129	1.187	1.110	
Jul-91	262.40	258.60	235.26	235.06	1.111	1.136	1.140	
Aug-91	272.17	262.05	251.40	237.86	1.137	1.126	1.152	
Sep-91	255.16	263.25	258.62	241.58	1.214	1.152	1.169	
Oct-91	288.09	271.87	265.27	246.58	1.259	1.202	1.169	
Nov-91	266.48	269.96	266.02	247.82	1.057	1.171	1.149	
Dec-91	258.07	270.85	267.08	249.98	1.112	1.139	1.145	1.129
Jan-92	319.11	281.46	276.71	256.23	1.295	1.156	1.178	1.161
Feb-92	222.64	266.67	268.30	259.96	1.272	1.224	1.197	1.175
Mar-92	251.85	264.52	267.65	263.20	1.191	1.254	1.193	1.181
Apr-92	255.53	243.38	262.27	263.75	1.029	1.149	1.152	1.161
May-92	269.07	258.83	262.72	264.35	1.027	1.075	1.146	1.147
Jun-92	286.99	270.55	267.55	267.31	1.141	1.065	1.151	1.148
Jul-92	282.23	279.46	261.55	269.01	1.076	1.081	1.112	1.144
Aug-92	256.38	275.07	267.04	267.66	0.942	1.050	1.062	1.125
Sep-92	276.90	271.82	271.20	269.45	1.085	1.033	1.049	1.115
Oct-92	275.32	269.57	274.44	268.47	0.956	0.992	1.035	1.089
Nov-92	267.01	273.04	274.04	268.50	1.002	1.011	1.030	1.083
Dec-92	325.37	289.28	280.65	274.25	1.261	1.068	1.051	1.097
Jan-93	264.09	285.49	277.60	269.76	0.828	1.014	1.003	1.053
Feb-93	219.27	269.42	271.22	269.18	0.985	1.010	1.011	1.035
Mar-93	260.52	247.94	268.49	269.82	1.034	0.937	1.003	1.025
Apr-93	240.56	240.15	262.67	268.44	0.941	0.987	1.002	1.018
May-93	245.38	248.81	259.05	266.43	0.912	0.961	0.986	1.008
Jun-93	253.81	246.59	247.26	263.73	0.884	0.911	0.924	0.987

Exhibit 8
State of Louisiana
State Employees Group Benefits Program
Historical Medical Benefits Experience
Based Upon M&R's 10/31/94 Valuation
High Estimate

Incurral Month	Estimated Incurred Claims Per Participant				Trends In Estimated Incurred Claims Per Participant			
	1 Month	3 Month	6 Month	12 Month	1 Month	3 Month	6 Month	12 Month
<i>Jul-93</i>	256.86	252.01	246.09	261.66	0.910	0.902	0.941	0.973
<i>Aug-93</i>	253.46	254.71	251.76	261.39	0.989	0.926	0.943	0.977
<i>Sep-93</i>	246.78	252.36	249.48	258.91	0.891	0.928	0.920	0.961
<i>Oct-93</i>	247.19	249.14	250.57	256.58	0.898	0.924	0.913	0.956
<i>Nov-93</i>	281.19	258.43	256.58	257.81	1.053	0.946	0.936	0.960
<i>Dec-93</i>	300.96	276.45	264.48	255.92	0.925	0.956	0.942	0.933
<i>Jan-94</i>	230.29	270.83	260.02	253.10	0.872	0.949	0.937	0.938
<i>Feb-94</i>	209.47	246.95	252.68	252.23	0.955	0.917	0.932	0.937
<i>Mar-94</i>	244.19	228.00	252.24	250.87	0.937	0.920	0.939	0.930
<i>Apr-94</i>	240.71	231.47	251.16	250.87	1.001	0.964	0.956	0.935
<i>May-94</i>	261.25	248.72	247.84	252.19	1.065	1.000	0.957	0.947
<i>Jun-94</i>	302.83	268.27	248.14	256.29	1.193	1.088	1.004	0.972
Totals								
<i>FY 91</i>				232.84				
<i>FY 92</i>				267.31				1.148
<i>FY 93</i>				263.73				0.987
<i>FY 94</i>				256.29				0.972
<i>CY 90</i>				221.35				
<i>CY 91</i>				249.98				1.129
<i>CY 92</i>				274.25				1.097
<i>CY 93</i>				255.92				0.933

Exhibit 9
State of Louisiana
State Employees Group Benefits Program
Projected Medical Benefits
Based Upon M&R's 10/31/94 Valuation & Projection
Mid Estimate

Incurral Month	Participant Months	Paid Claims Sorted		Estimated Incurred Claims	Recent Reserve	Premiums	Admin Expenses	Excess/(Loss) Premium Over Claims & Exp
		by Paid Month	by Incurred Month					
Jul-94	75,527	23,106,194	18,113,384	20,542,450	44,510,467	20,786,541	1,408,579	(1,164,488)
Aug-94	75,680	28,714,304	18,683,222	22,792,207	38,588,370	20,828,650	1,411,432	(3,374,989)
Sep-94	75,421	21,976,262	11,834,497	22,011,282	38,623,389	20,757,368	1,406,602	(2,660,516)
Oct-94	75,857	23,127,709	2,534,563	22,504,320	38,000,000	20,877,364	1,414,733	(3,041,689)
Nov-94	75,778	22,389,456		24,906,250	40,516,794	20,855,621	1,413,260	(5,463,889)
Dec-94	75,945	23,905,986		26,127,909	42,738,716	20,901,583	1,416,374	(6,642,700)
Jan-95	76,060	24,460,537		20,498,531	38,776,710	20,933,233	1,418,519	(983,816)
Feb-95	76,175	22,450,202		18,574,246	34,900,754	20,964,884	1,420,664	969,974
Mar-95	76,279	20,530,167		21,238,745	35,609,332	20,993,506	1,422,603	(1,667,842)
Apr-95	76,394	20,815,853		20,819,912	35,613,391	21,025,157	1,424,748	(1,219,504)
May-95	76,505	21,177,448		21,904,191	36,340,135	21,055,706	1,426,818	(2,275,303)
Jun-95	76,620	21,821,241		24,591,167	39,110,060	21,087,356	1,428,963	(4,932,773)
Jul-95	76,732	23,056,821		22,767,055	38,820,295	21,118,181	1,481,139	(3,130,013)
Aug-95	76,847	23,223,862		24,864,157	40,460,590	21,149,831	1,483,358	(5,197,684)
Sep-95	76,962	23,620,327		24,052,503	40,892,765	21,181,482	1,485,578	(4,356,599)
Oct-95	77,073	23,924,421		24,334,261	41,302,605	21,212,031	1,487,721	(4,609,950)
Nov-95	77,188	24,349,772		26,679,039	43,631,872	21,243,681	1,489,941	(6,925,298)
Dec-95	77,299	25,747,147		27,786,696	45,671,421	21,274,231	1,492,083	(8,004,549)
Jan-96	77,414	26,197,589		22,050,422	41,524,254	21,305,881	1,494,303	(2,238,844)
Feb-96	77,529	24,075,401		20,046,439	37,495,292	21,337,531	1,496,523	(205,431)
Mar-96	77,637	22,061,429		22,622,856	38,056,718	21,367,255	1,498,608	(2,754,208)
Apr-96	77,752	22,258,353		22,132,830	37,931,196	21,398,905	1,500,827	(2,234,752)
May-96	77,863	22,545,282		23,145,591	38,531,504	21,429,455	1,502,970	(3,219,106)
Jun-96	77,978	23,115,521		25,770,004	41,185,988	21,461,105	1,505,190	(5,814,089)
Totals	1,840,515	558,651,285	51,165,666	552,763,062		506,546,538	34,931,536	(81,148,059)
FY95	912,241	274,475,359	51,165,666	266,511,208		251,066,968	17,013,295	(32,457,535)
FY96	928,274	284,175,926	0	286,251,853		255,479,570	17,918,241	(48,690,524)
CY94	903,039	275,919,792	159,684,077	248,778,214		125,007,126	8,470,979	(22,348,271)
CY95	920,134	275,177,797	-	278,110,502		253,239,279	17,462,136	(42,333,358)

Exhibit 9
State of Louisiana
State Employees Group Benefits Program
Projected Medical Benefits
Based Upon M&R's 10/31/94 Valuation and Projection
Mid Estimate

Incurred Month	Estimated Incurred Claims Per Participant				Trends in Estimated Incurred Claims Per Participant			
	1 Month	3 Month	6 Month	12 Month	1 Month	3 Month	6 Month	12 Month
Jul-94	271.99	274.40	252.12	255.89	1.059	1.089	1.024	0.978
Aug-94	301.17	289.17	268.12	259.90	1.188	1.135	1.065	0.994
Sep-94	291.85	288.34	276.13	263.66	1.183	1.143	1.107	1.018
Oct-94	296.67	296.57	285.52	267.81	1.200	1.190	1.139	1.044
Nov-94	328.67	305.75	297.48	271.81	1.169	1.183	1.159	1.054
Dec-94	344.04	323.13	305.77	275.49	1.144	1.169	1.156	1.077
Jan-95	269.50	314.04	305.32	278.87	1.179	1.162	1.176	1.103
Feb-95	243.84	285.74	295.72	281.99	1.188	1.167	1.175	1.120
Mar-95	278.44	263.93	293.47	284.85	1.143	1.169	1.169	1.138
Apr-95	272.53	264.95	289.44	287.49	1.135	1.153	1.158	1.149
May-95	286.31	279.10	282.41	289.91	1.115	1.130	1.148	1.154
Jun-95	320.95	293.29	278.64	292.15	1.090	1.112	1.138	1.147
Jul-95	296.71	301.33	283.18	294.20	1.091	1.098	1.123	1.150
Aug-95	323.55	313.74	296.46	296.09	1.074	1.085	1.106	1.139
Sep-95	312.52	310.94	302.13	297.82	1.071	1.078	1.094	1.130
Oct-95	315.73	317.27	309.31	299.42	1.064	1.070	1.083	1.118
Nov-95	345.64	324.65	319.20	300.89	1.052	1.062	1.073	1.107
Dec-95	359.47	340.30	325.65	302.25	1.045	1.053	1.065	1.097
Jan-96	284.84	329.95	323.62	303.49	1.057	1.051	1.060	1.088
Feb-96	258.57	300.91	312.75	304.64	1.060	1.053	1.058	1.080
Mar-96	291.39	278.27	309.22	305.69	1.047	1.054	1.054	1.073
Apr-96	284.66	278.22	304.03	306.66	1.044	1.050	1.050	1.067
May-96	297.26	291.11	296.00	307.55	1.038	1.043	1.048	1.061
Jun-96	330.48	304.15	291.24	308.37	1.030	1.037	1.045	1.056
Totals								
FY95				292.15				1.147
FY96				308.37				1.056
CY94				275.49				1.077
CY95				302.25				1.097

Exhibit 10
State of Louisiana
State Employees Group Benefits Program
Projected Medical Benefits
Based Upon M&R's 10/31/94 Valuation & Projection
Low Estimate

Incurred Month	Participant Months	Paid Claims Sorted		Estimated Incurred Claims	Reest Reserve	Premiums	Admin Expenses	Excess/(Loss) Pmts Over Claims & Exp
		by Paid Month	by Incurred Month					
Jul-94	75,527	23,106,194	18,113,384	20,299,543	42,765,382	20,786,541	1,408,579	(921,581)
Aug-94	75,680	28,714,304	18,683,222	22,044,619	36,095,697	20,828,650	1,411,432	(2,627,401)
Sep-94	75,421	21,976,262	11,834,497	21,502,442	35,621,877	20,757,368	1,406,602	(2,151,676)
Oct-94	75,857	23,127,709	2,534,563	21,505,832	34,000,000	20,877,364	1,414,733	(2,043,201)
Nov-94	75,778	21,758,904		24,359,089	36,600,185	20,855,621	1,413,260	(4,916,728)
Dec-94	75,945	23,300,724		25,387,893	38,687,354	20,901,583	1,416,374	(5,902,684)
Jan-95	76,060	23,853,012		19,521,047	34,355,388	20,933,233	1,418,519	(6,332)
Feb-95	76,175	21,570,785		17,318,395	30,102,998	20,964,884	1,420,664	2,225,825
Mar-95	76,279	19,396,571		20,211,318	30,917,745	20,993,506	1,422,603	(640,414)
Apr-95	76,394	19,768,640		19,740,576	30,889,681	21,025,157	1,424,748	(140,167)
May-95	76,505	20,005,887		20,518,979	31,402,772	21,055,706	1,426,818	(890,091)
Jun-95	76,620	20,433,232		22,890,034	33,859,575	21,087,356	1,428,963	(3,231,641)
Jul-95	76,732	21,740,919		21,477,145	33,595,801	21,118,181	1,481,139	(1,840,103)
Aug-95	76,847	21,910,652		23,094,833	34,779,982	21,149,831	1,483,358	(3,428,360)
Sep-95	76,962	21,976,819		22,550,165	35,353,327	21,181,482	1,485,578	(2,854,261)
Oct-95	77,073	22,318,433		22,371,936	35,406,831	21,212,031	1,487,721	(2,647,626)
Nov-95	77,188	22,708,033		25,198,866	37,897,664	21,243,681	1,489,941	(5,445,125)
Dec-95	77,299	24,163,913		26,157,924	39,891,674	21,274,231	1,492,083	(6,375,776)
Jan-96	77,414	24,658,123		20,218,496	35,452,047	21,305,881	1,494,303	(406,918)
Feb-96	77,529	22,301,109		17,979,851	31,130,790	21,337,531	1,496,523	1,861,157
Mar-96	77,637	20,071,950		20,828,515	31,887,355	21,367,255	1,498,608	(959,867)
Apr-96	77,752	20,403,550		20,330,685	31,814,489	21,398,905	1,500,827	(432,607)
May-96	77,863	20,611,715		21,072,610	32,275,384	21,429,455	1,502,970	(1,146,125)
Jun-96	77,978	21,004,411		23,425,588	34,696,561	21,461,105	1,505,190	(3,469,673)
Totals	1,840,515	530,881,852	51,165,666	520,006,380		506,546,538	34,931,536	(48,391,377)
FY95	912,241	267,012,224	51,165,666	255,299,766		251,066,968	17,013,295	(21,246,093)
FY96	928,274	263,869,628	0	264,706,614		255,479,570	17,918,241	(27,145,285)
CY94	903,039	274,683,978	159,684,077	243,513,497		125,007,126	8,470,979	(18,563,272)
CY95	920,134	259,846,897	-	261,051,217		253,239,279	17,462,136	(25,274,073)

Exhibit 11
State of Louisiana
State Employees Group Benefits Program
Projected Medical Benefits
Based Upon M&R's 10/31/94 Valuation & Projection
High Estimate

Incurred Month	Participant Months	Paid Claims Sorted		Estimated Incurred Claims	Recast Reserve	Premiums	Admin Expenses	Excess/(Loss) Preme Over Claims & Exp
		by Paid Month	by Incurred Month					
Jul-94	75,527	23,106,194	18,113,384	20,785,357	46,255,551	20,786,541	1,408,579	(1,407,394)
Aug-94	75,680	28,714,304	18,683,222	23,539,796	41,081,043	20,828,650	1,411,432	(4,122,578)
Sep-94	75,421	21,976,262	11,834,497	22,520,121	41,624,902	20,757,368	1,406,602	(3,169,355)
Oct-94	75,857	23,127,709	2,534,563	23,502,807	42,000,000	20,877,364	1,414,733	(4,040,177)
Nov-94	75,778	23,055,279		25,633,810	44,578,531	20,855,621	1,413,260	(6,191,449)
Dec-94	75,945	24,576,222		26,949,407	46,951,716	20,901,583	1,416,374	(7,464,198)
Jan-95	76,060	25,147,517		21,494,455	43,298,654	20,933,233	1,418,519	(1,979,741)
Feb-95	76,175	23,324,847		19,794,332	39,768,138	20,964,884	1,420,664	(250,112)
Mar-95	76,279	21,654,494		22,239,342	40,352,986	20,993,506	1,422,603	(2,668,439)
Apr-95	76,394	21,821,983		21,854,191	40,385,195	21,025,157	1,424,748	(2,253,783)
May-95	76,505	22,311,745		23,262,409	41,335,858	21,055,706	1,426,818	(3,633,521)
Jun-95	76,620	23,133,044		26,256,093	44,458,907	21,087,356	1,428,963	(6,597,700)
Jul-95	76,732	24,345,290		24,057,110	44,170,727	21,118,181	1,481,139	(4,420,067)
Aug-95	76,847	24,517,476		26,670,205	46,323,456	21,149,831	1,483,358	(7,003,733)
Sep-95	76,962	25,248,053		25,628,379	46,703,782	21,181,482	1,485,578	(5,932,476)
Oct-95	77,073	25,522,289		26,388,614	47,570,107	21,212,031	1,487,721	(6,664,303)
Nov-95	77,188	26,095,699		28,459,532	49,933,940	21,243,681	1,489,941	(8,705,791)
Dec-95	77,299	27,493,733		29,654,010	52,094,217	21,274,231	1,492,083	(9,871,862)
Jan-96	77,414	27,949,003		24,085,953	48,231,167	21,305,881	1,494,303	(4,274,375)
Feb-96	77,529	26,009,164		22,281,425	44,503,428	21,337,531	1,496,523	(2,440,417)
Mar-96	77,637	24,234,604		24,641,340	44,910,165	21,367,255	1,498,608	(4,772,693)
Apr-96	77,752	24,299,308		24,150,881	44,761,737	21,398,905	1,500,827	(4,252,802)
May-96	77,863	24,694,290		25,481,108	45,548,555	21,429,455	1,502,970	(5,554,623)
Jun-96	77,978	25,427,199		28,387,152	48,508,508	21,461,105	1,505,190	(8,431,237)
Totals	1,840,515	587,785,710	51,165,666	587,717,828		506,546,538	34,931,536	(116,102,826)
FY95	912,241	281,949,601	51,165,666	277,832,119		251,066,968	17,013,295	(43,778,446)
FY96	928,274	305,836,109	0	309,885,709		255,479,570	17,918,241	(72,324,380)
CY94	903,039	277,255,851	159,684,077	254,304,813		125,007,126	8,470,979	(26,395,151)
CY95	920,134	290,616,171	-	295,758,672		253,239,279	17,462,136	(59,981,528)

Exhibit 11
State of Louisiana
State Employees Group Benefits Program
Projected Medical Benefits
Based Upon M&R's 10/31/94 Valuation and Projection
High Estimate

Incurral Month	Estimated Incurred Claims Per Participant				Trends In Estimated Incurred Claims Per Participant			
	1 Month	3 Month	6 Month	12 Month	1 Month	3 Month	6 Month	12 Month
Jul-94	275.20	279.75	255.66	257.83	1.071	1.110	1.039	0.985
Aug-94	311.04	296.35	272.62	262.68	1.227	1.163	1.083	1.005
Sep-94	298.59	294.96	281.68	266.99	1.210	1.169	1.129	1.031
Oct-94	309.83	306.50	293.18	272.25	1.253	1.230	1.170	1.061
Nov-94	338.28	315.59	305.99	277.05	1.203	1.221	1.193	1.075
Dec-94	354.85	334.33	314.68	281.61	1.179	1.209	1.190	1.100
Jan-95	282.60	325.21	315.87	285.94	1.227	1.201	1.215	1.130
Feb-95	259.85	299.05	307.30	290.05	1.241	1.211	1.216	1.150
Mar-95	291.55	278.01	306.11	293.96	1.194	1.219	1.214	1.172
Apr-95	286.07	279.17	302.14	297.68	1.188	1.206	1.203	1.187
May-95	304.06	293.90	296.47	301.21	1.164	1.182	1.196	1.194
Jun-95	342.68	310.97	294.52	304.56	1.132	1.159	1.187	1.188
Jul-95	313.52	320.09	299.68	307.74	1.139	1.144	1.172	1.194
Aug-95	347.06	334.42	314.21	310.77	1.116	1.128	1.153	1.183
Sep-95	333.00	331.20	321.11	313.64	1.115	1.123	1.140	1.175
Oct-95	342.38	340.81	330.48	316.37	1.105	1.112	1.127	1.162
Nov-95	368.70	348.05	341.25	318.96	1.090	1.103	1.115	1.151
Dec-95	383.63	364.93	348.10	321.43	1.081	1.092	1.106	1.141
Jan-96	311.13	354.46	347.65	323.77	1.101	1.090	1.101	1.132
Feb-96	287.39	327.34	337.67	325.99	1.106	1.095	1.099	1.124
Mar-96	317.39	305.31	335.05	328.11	1.089	1.098	1.095	1.116
Apr-96	310.61	305.14	329.75	330.11	1.086	1.093	1.091	1.109
May-96	327.26	318.43	322.87	332.02	1.076	1.083	1.089	1.102
Jun-96	364.04	334.00	319.68	333.83	1.062	1.074	1.085	1.096
Totals								
FY95				304.56				1.188
FY96				333.83				1.096
CY94				281.61				1.100
CY95				321.43				1.141

Exhibit 12
State of Louisiana
State Employees Group Benefits Program
Medical Plan for Actives and Retirees
Estimated Incurred Claims Per Participant
Based Upon M&R's 10/31/94 Valuation and Projection
Mid Estimate

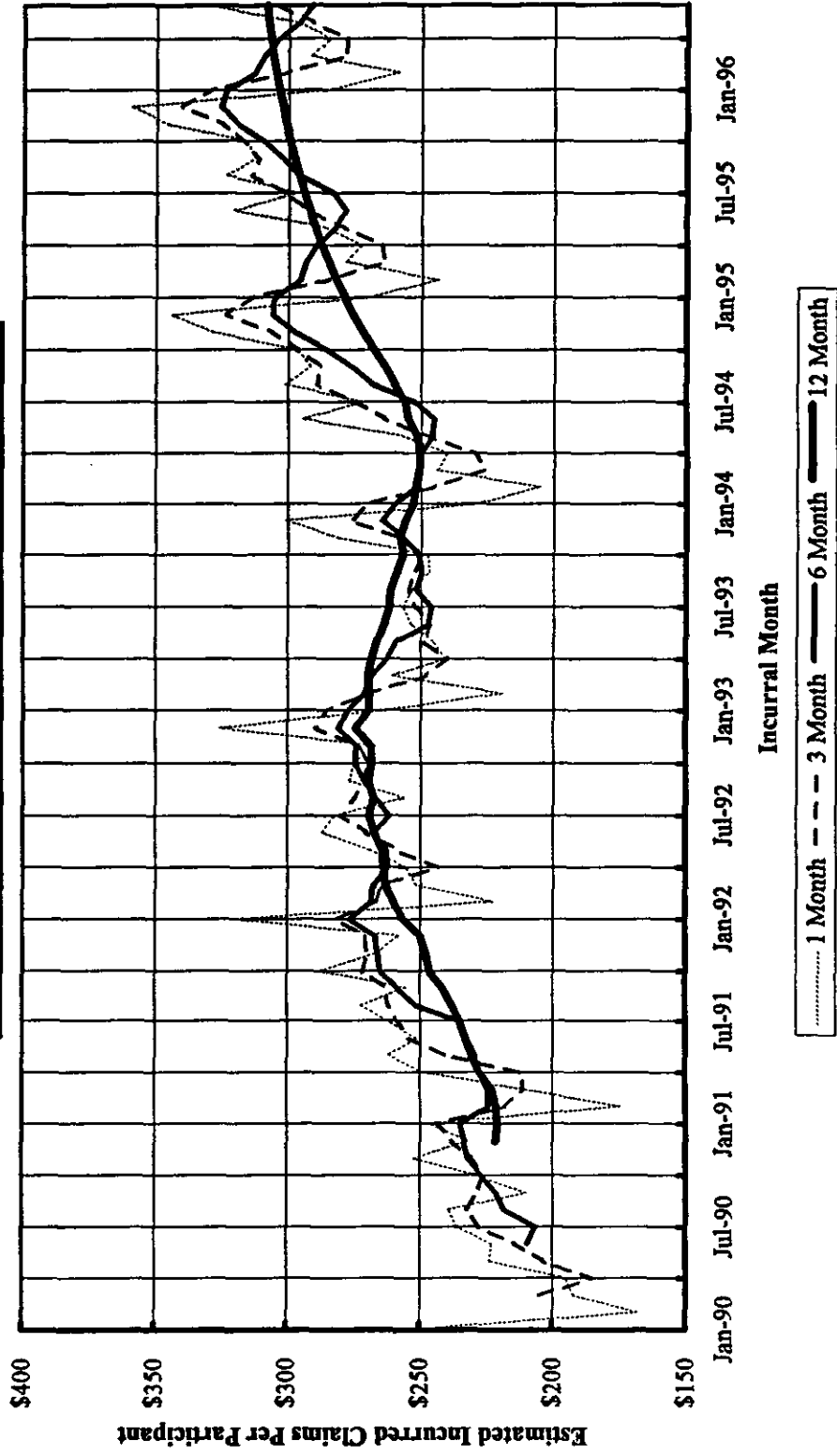


Exhibit 13
State of Louisiana
State Employees Group Benefits Program
Medical Plan for Actives and Retirees
Estimated Incurred Claims Per Participant
Based Upon M&R's 10/31/94 Valuation and Projection
Low Estimate

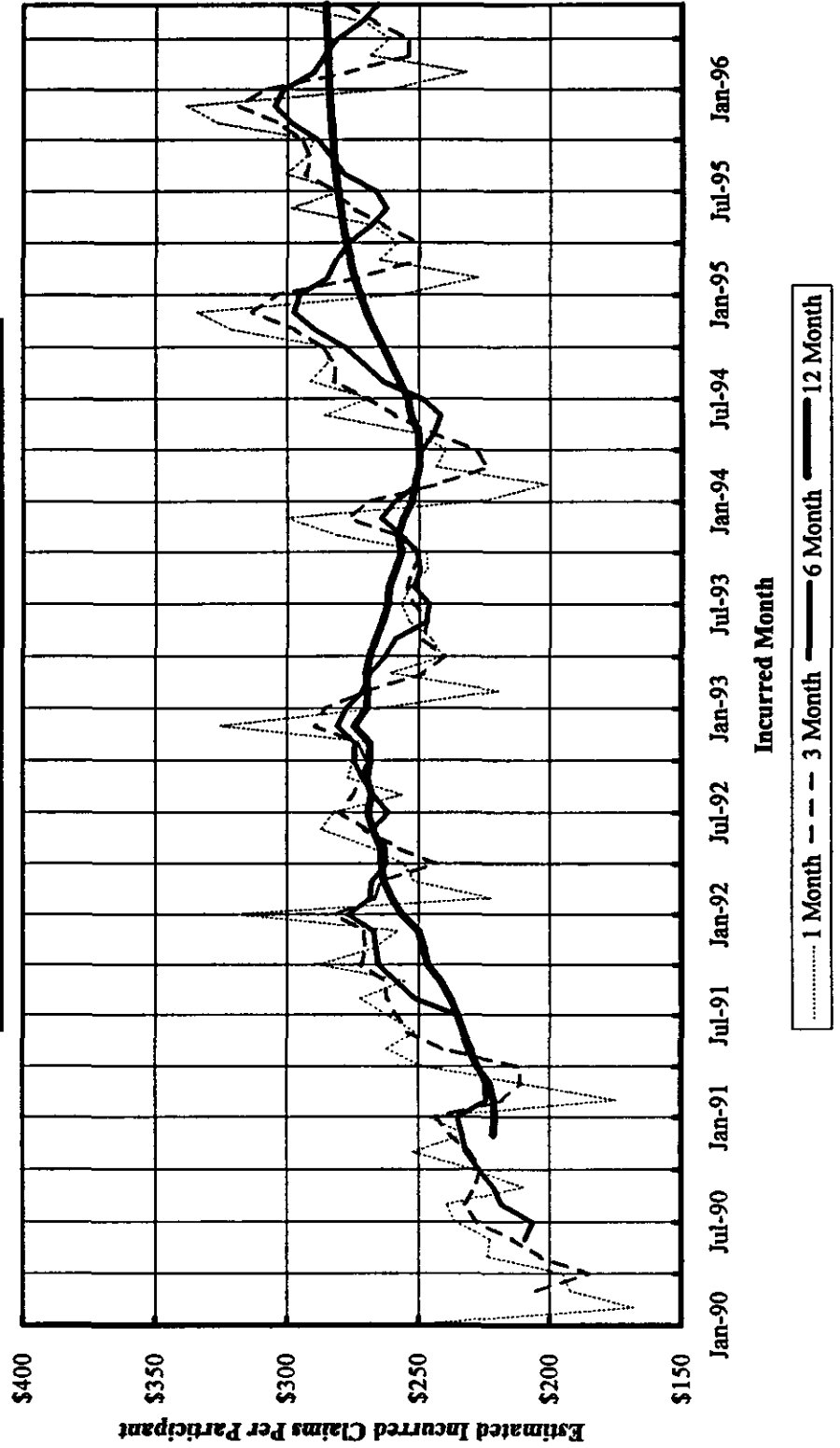
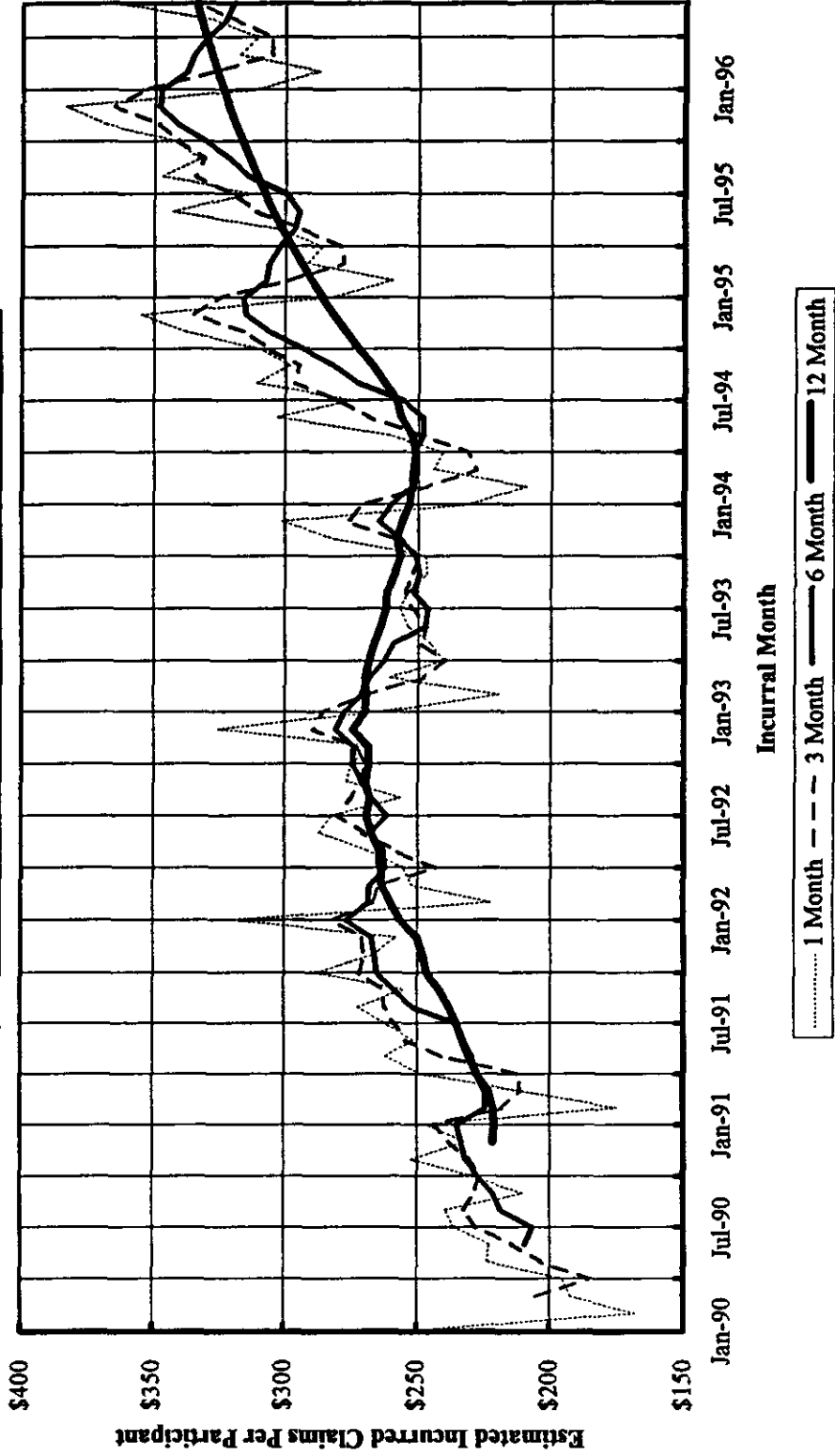
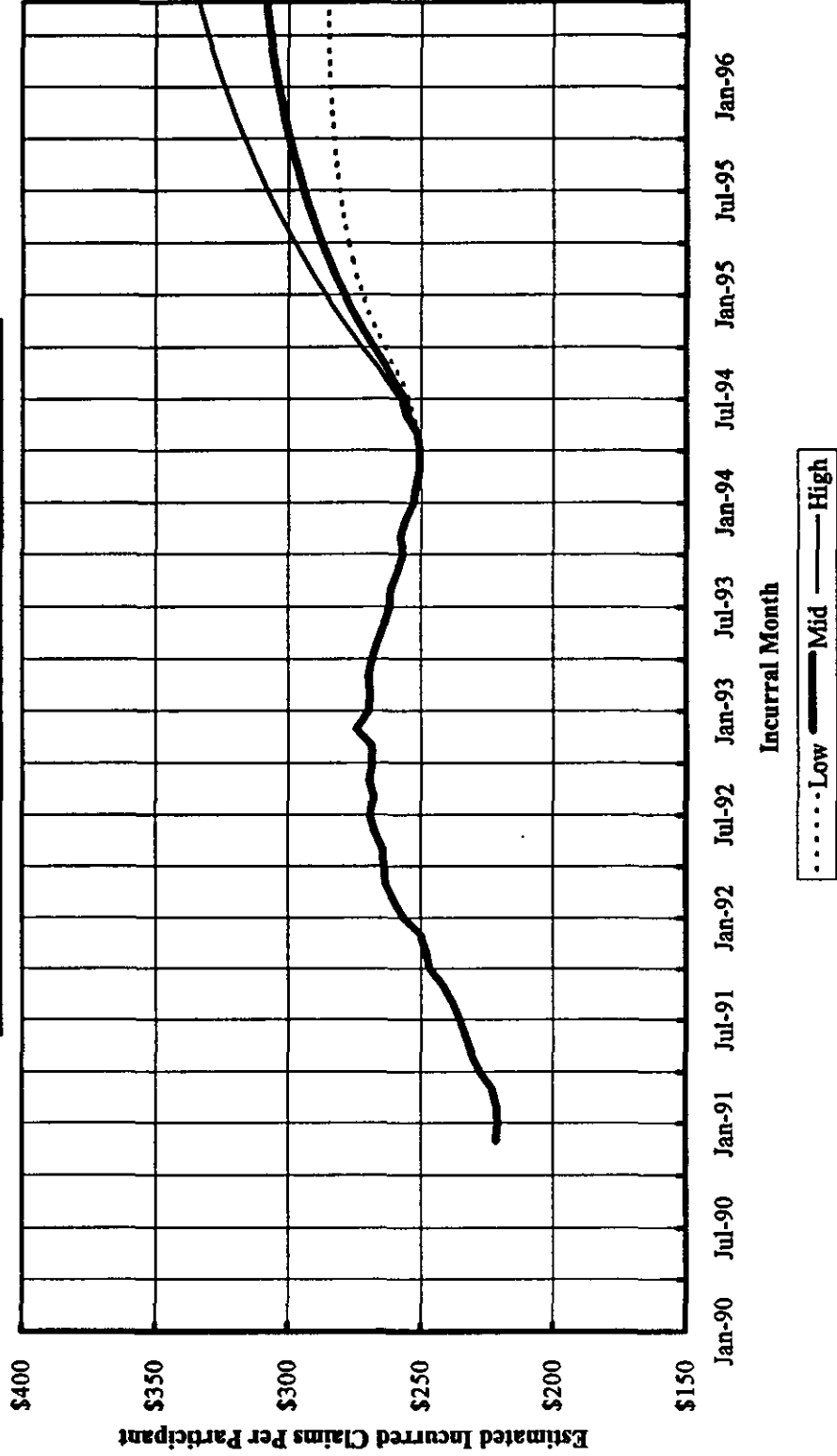


Exhibit 14
State of Louisiana
State Employees Group Benefits Program
Medical Plan for Actives and Retirees
Estimated Incurred Claims Per Participant
Based Upon M&R's 10/31/94 Valuation and Projection
High Estimate



MILLIMAN & ROBERTSON, INC.

Exhibit 15
State of Louisiana
State Employees Group Benefits Program
Medical Plan for Actives and Retirees
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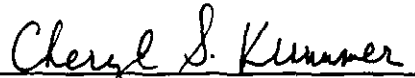
Appendix O

Employee Preretirement Death and Disability Benefit Study for the State of Louisiana

***Employee Preretirement Death and
Disability Benefit Study for the
State of Louisiana***

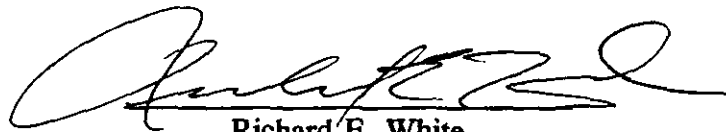
**EMPLOYEE PRERETIREMENT DEATH AND
DISABILITY BENEFIT STUDY FOR THE
STATE OF LOUISIANA**

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Individual Employer Summary

Acadian Ambulance Service, Inc.

Albemarle Corporation

BellSouth

Blue Cross & Blue Shield of Louisiana

Capital City Press

Entergy

Exxon

General Health System

Pan-American Life Insurance Company

Tidewater Marine

- Exhibit I1** **Comparison of Defined Benefit Formulas**
- Exhibit I2** **Comparison of Employer Contributions to Defined Contribution Plans**
- Exhibit I3** **Comparison of Disability Benefits**
- Exhibit I4** **Comparison of PreRetirement Death Benefits**

Appendix 1 - Actuarial Assumptions

Comparison of Mortality Assumption

Comparison of Disability Incidence Rates - Teachers

Comparison of Disability Incidence Rates - LASERS

Males - Select Period for Post-Disability Death and Recovery Derived from 1985 GLTD Table

Females - Select Period for Post-Disability Death and Recovery Derived from 1985 GLTD Table

Comparison of Post-Disability Death and Recovery Rates

Participant Age / Service Distributions

Section C - Standard In-Service Death Benefit Plans

- Distrib C3 Louisiana State Employees' Retirement System:
Two Times Pay Death Benefit One Year
Term Cost Per Thousand By Age and Service Groups
Actuarial Valuation Assumptions**
- Distrib C4 Louisiana State Employees' Retirement System:
Two Times Pay Death Benefit One Year
Term Cost Per Thousand By Age and Service Groups
Alternative Actuarial Assumptions**
- Distrib C5 Teachers Retirement System of Louisiana
Two Times Pay Death Benefit One Year
Term Cost Per Thousand By Age and Service Groups
Actuarial Valuation Assumptions**
- Distrib C6 Teachers Retirement System of Louisiana
Two Times Pay Death Benefit One Year
Term Cost Per Thousand By Age and Service Groups
Alternative Actuarial Assumptions**
- Distrib C7 Louisiana State Employees' Retirement System:
\$40,000 Death Benefit One Year
Term Cost Per Thousand By Age and Service Groups
Actuarial Valuation Assumptions**
- Distrib C8 Louisiana State Employees' Retirement System:
\$40,000 Death Benefit One Year
Term Cost Per Thousand By Age and Service Groups
Alternative Actuarial Assumptions**
- Distrib C9 Teachers Retirement System of Louisiana
\$40,000 Death Benefit One Year
Term Cost Per Thousand By Age and Service Groups
Actuarial Valuation Assumptions**
- Distrib C10 Teachers Retirement System of Louisiana
\$40,000 Death Benefit One Year
Term Cost Per Thousand By Age and Service Groups
Alternative Actuarial Assumptions**
- Distrib C11 Louisiana State Employees' Retirement System:
Two Times Pay Death Benefit One Year
Term Cost as a Percent of Earnings By Age and Service Groups
Actuarial Valuation Assumptions**

- Distrib C12 Louisiana State Employees' Retirement System:
Two Times Pay Death Benefit One Year
Term Cost as a Percent of Earnings By Age and Service Groups
Alternative Actuarial Assumptions**
- Distrib C13 Teachers Retirement System of Louisiana
Two Times Pay Death Benefit One Year
Term Cost as a Percent of Earnings By Age and Service Groups
Actuarial Valuation Assumptions**

Section D - Existing PreRetirement Death Benefits

- Distrib D2 Louisiana State Employees' Retirement System
Current Plan Preretirement Death Benefits One Year Term Cost By Age
and Service Groups - Actuarial Valuation Assumptions**
- Distrib D3 Louisiana State Employees' Retirement System
Current Plan Preretirement Death Benefits One Year Term Cost By Age
and Service Groups - Alternative Actuarial Assumptions**
- Distrib D4 Teachers Retirement System of Louisiana
Current Preretirement Death Benefits One Year Term Cost By Age and
Service Groups - Actuarial Valuation Assumptions**
- Distrib D5 Teachers Retirement System of Louisiana
Current Preretirement Death Benefits One Year Term Cost By Age and
Service Groups - Alternative Actuarial Assumptions**
- Distrib D6 Louisiana State Employees' Retirement System
Current Plan Preretirement Death Benefit One Year Term Cost by
Age and Service Groups as a Percent of Earnings
Actuarial Valuation Assumptions**
- Distrib D7 Louisiana State Employees' Retirement System
Current Plan Preretirement Death Benefit One Year Term Cost by
Age and Service Groups as a Percent of Earnings
Alternative Valuation Assumptions**
- Distrib D8 Teachers Retirement System of Louisiana
Current Plan Preretirement Death Benefit One Year Term Cost by
Age and Service Groups as a Percent of Earnings
Actuarial Valuation Assumptions**
- Distrib D9 Louisiana State Employees' Retirement System
Present Value Of Current Plan Future Preretirement Death Benefits by
Age and Service Groups as a Percent of Earnings
Actuarial Valuation Assumptions**

Distrib D10 Teachers Retirement System of Louisiana
Present Value Of Current Plan Future Preretirement Death Benefits by
Age and Service Groups as a Percent of Earnings
Actuarial Valuation Assumptions

Section E - Comparison of PreRetirement Death Benefits

Distrib E8 Louisiana State Employees' Retirement System
Reduced Pension and Two Times Pay Preretirement Death
Benefit One Year Term Costs By Age and Service Groups as a Percent
of Pay - Actuarial Valuation Assumptions

Distrib E9 Teachers' Retirement System of Louisiana
Reduced Pension and Two Times Pay Preretirement Death
Benefit One Year Term Costs By Age and Service Groups as a Percent
of Pay - Actuarial Valuation Assumptions

Distrib E10 Louisiana State Employees' Retirement System
Comparison of Reduced Pension and Two Times Pay Preretirement
Death Benefit One Year Term Costs to Current Plan By Age and Service
Groups - Actuarial Valuation Assumptions

Distrib E11 Louisiana State Employees' Retirement System
Comparison of Reduced Pension and Two Times Pay Preretirement
Death Benefit One Year Term Costs to Current Plan By Age and Service
Groups - Alternative Actuarial Assumptions

Distrib E12 Louisiana State Employees' Retirement System
Comparison of Reduced Pension and \$40,000 Preretirement Death
Benefits One Year Term Costs to Current Plan by Age and Service
Groups - Actuarial Valuation Assumptions

Distrib E13 Louisiana State Employees' Retirement System
Comparison of Reduced Pension and \$40,000 Preretirement Death
Benefit One Year Term Costs to Current Plan by Age and Service
Groups Alternative Actuarial Assumptions

Distrib E14 Teachers' Retirement System of Louisiana
Comparison of Reduced Pension and Two Times Pay Preretirement
Death Benefit One Year Term Costs to Current Plan By Age and Service
Groups - Actuarial Valuation Assumptions

Distrib E15 Teachers' Retirement System of Louisiana
Comparison of Reduced Pension and Two Times Pay Preretirement
Death Benefit One Year Term Costs to Current Plan By Age and Service
Groups - Alternative Actuarial Assumptions

- Distrib E16** Teachers' Retirement System of Louisiana
Comparison of Reduced Pension and \$40,000 Preretirement Death Benefits One Year Term Costs to Current Plan by Age and Service Groups - Actuarial Valuation Assumptions
- Distrib E17** Teachers' Retirement System of Louisiana
Comparison of Present Value of Future Reduced Pension and \$40,000 Death Benefit to Current Plan by Age and Service Groups
Alternative Actuarial Assumptions
- Distrib E18** Louisiana State Employees' Retirement System
Comparison of Present Value of Future Reduced Pension and Two Times Pay Preretirement Death Benefit to Current Plan by Age and Service Groups - Actuarial Valuation Assumptions
- Distrib E19** Louisiana State Employees' Retirement System
Comparison of Present Value of Future Reduced Pension and Two Times Pay Preretirement Death Benefit to Current Plan by Age and Service Groups - Alternative Actuarial Assumptions
- Distrib E20** Louisiana State Employees' Retirement System
Comparison of Present Value of Future Reduced Pension and \$40,000 Death Benefit to Current Plan by Age and Service Groups:
Actuarial Valuation Assumptions
- Distrib E21** Louisiana State Employees' Retirement System
Comparison of Present Value of Future Reduced Pension and \$40,000 Death Benefit to Current Plan by Age and Service Groups
Alternative Actuarial Assumptions
- Distrib E22** Teachers Retirement System of Louisiana
Comparison of Present Value of Future Reduced Pension and Two Times Pay Preretirement Death Benefit to Current Plan by Age and Service Groups - Actuarial Valuation Assumptions
- Distrib E23** Teachers Retirement System of Louisiana:
Comparison of Present Value of Future Reduced Pension and Two Times Pay Preretirement Death Benefit to Current Plan by Age and Service Groups - Alternative Actuarial Assumptions
- Distrib E24** Teachers Retirement System of Louisiana
Comparison of Present Value of Future Reduced Pension and \$40,000 Death Benefit to Current Plan by Age and Service Groups:
Actuarial Valuation Assumptions
- Distrib E25** Teachers Retirement System of Louisiana
Comparison of Present Value of Future Reduced Pension and \$40,000 Death Benefit to Current Plan by Age and Service Groups
Alternative Actuarial Assumptions

Section F - Standard In-Service Disability Benefit Plan

- Distrib F2 Louisiana State Employees' Retirement System:
65% of Pay Disability Benefit One Year Term Cost By Age and Service
Actuarial Valuation Assumptions**
- Distrib F3 Louisiana State Employees' Retirement System:
65% of Pay Disability Benefit One Year Term Cost By Age and Service
Alternative Actuarial Assumptions**
- Distrib F4 Teachers Retirement System of Louisiana:
65% of Pay Disability Benefits One Year Term Cost By Age and Service
Actuarial Valuation Assumptions**
- Distrib F5 Teachers Retirement System of Louisiana:
65% of Pay Disability Benefits One Year Term Cost By Age and Service
Alternative Actuarial Assumptions**
- Distrib F6 Louisiana State Employees' Retirement System:
65% of Pay Disability Benefit One Year Term Cost By Age and Service
As a Percent of Earnings - Actuarial Valuation Assumptions**
- Distrib F7 Louisiana State Employees' Retirement System:
65% of Pay Disability Benefit One Year Term Cost By Age and Service
As a Percent of Earnings - Alternative Actuarial Assumptions**
- Distrib F8 Teachers Retirement System of Louisiana:
65% of Pay Disability Benefits One Year Term Cost By Age and Service
As a Percent of Earnings - Actuarial Valuation Assumptions**
- Distrib F9 Teachers Retirement System of Louisiana:
65% of Pay Disability Benefits One Year Term Cost By Age and Service
As a Percent of Earnings - Alternative Actuarial Assumptions**
- Distrib F10 Louisiana State Employees' Retirement System:
Present Value of Future 65% of Pay Disability Benefits By Age and
Service As a Percent of Earnings - Actuarial Valuation Assumptions**
- Distrib F11 Teachers Retirement System of Louisiana
Present Value of Future 65% of Pay Disability Benefits By Age and
Service As a Percent of Earnings - Actuarial Valuation Assumptions**
- Distrib F12 Teachers Retirement System of Louisiana
Present Value of Future 65% of Pay Disability Benefits By Age and
Service As a Percent of Earnings - Alternative Actuarial Assumptions**

Section G - Existing PreRetirement Disability Benefits

- Distrib G2 Louisiana State Employees' Retirement System
Current Plan Disability Benefits One Year Term Cost By Age
and Service Groups - Actuarial Valuation Assumptions**
- Distrib G3 Louisiana State Employees' Retirement System
Current Plan Disability Benefits One Year Term Cost By Age
and Service Groups - Alternative Actuarial Assumptions**
- Distrib G4 Teachers Retirement System of Louisiana
Current Disability Benefits One Year Term Cost By Age and
Service Groups - Actuarial Valuation Assumptions**
- Distrib G5 Teachers Retirement System of Louisiana
Current Preretirement Death Benefits One Year Term Cost By Age and
Service Groups - Alternative Actuarial Assumptions**
- Distrib G6 Louisiana State Employees' Retirement System
Current Plan Disability Benefit One Year Term Cost by
Age and Service Groups as a Percent of Earnings
Actuarial Valuation Assumptions**
- Distrib G7 Louisiana State Employees' Retirement System
Current Plan Disability Benefit One Year Term Cost by
Age and Service Groups as a Percent of Earnings
Alternative Valuation Assumptions**
- Distrib G8 Teachers Retirement System of Louisiana
Current Plan Disability Benefit One Year Term Cost by
Age and Service Groups as a Percent of Earnings
Actuarial Valuation Assumptions**
- Distrib G9 Louisiana State Employees' Retirement System
Present Value Of Current Plan Future Disability Benefits by
Age and Service Groups as a Percent of Earnings
Actuarial Valuation Assumptions**
- Distrib G10 Teachers Retirement System of Louisiana
Present Value Of Current Plan Future Disability Benefits by
Age and Service Groups as a Percent of Earnings
Actuarial Valuation Assumptions**

Section H - Comparison of PreRetirement Disability Benefits

- Distrib H5 Louisiana State Employees' Retirement System
Reduced Pension and 65% of Pay Disability Benefit
One Year Term Costs By Age and Service Groups as a Percent
of Pay - Actuarial Valuation Assumptions**
- Distrib H6 Teachers' Retirement System of Louisiana
Reduced Pension and 65% of Pay Disability Benefit
One Year Term Costs By Age and Service Groups as a Percent
of Pay - Actuarial Valuation Assumptions**
- Distrib H7 Louisiana State Employees' Retirement System:
Comparison of Reduced Pension and 65% of Pay Disability Benefit
One Year Term Cost to Current Plan By Age and Service
Groups - Actuarial Valuation Assumptions**
- Distrib H8 Teachers' Retirement System of Louisiana
Comparison of Reduced Pension and 65% of Pay Disability Benefit
One Year Term Cost to Current Plan By Age and Service
Groups - Actuarial Valuation Assumptions**
- Distrib H9 Teachers' Retirement System of Louisiana
Comparison of Reduced Pension and 65% of Pay Disability Benefit
One Year Term Cost to Current Plan By Age and Service
Groups - Alternative Actuarial Assumptions**
- Distrib H10 Louisiana State Employees' Retirement System:
Comparison of Present Value of Future Reduced Pension and 65% of
Pay Disability Benefit to Current Plan by Age and Service Groups -
Actuarial Valuation Assumptions**
- Distrib H11 Louisiana State Employees' Retirement System:
Comparison of Present Value of Future Reduced Pension and 65% of
Pay Disability Benefits to Current Plan by Age and Service Groups:
Alternative Actuarial Assumptions**
- Distrib H12 Teachers' Retirement System of Louisiana
Comparison of Present Value of Future Reduced Pension and 65% of
Pay Disability Benefit to Current Plan by Age and Service Groups -
Actuarial Valuation Assumptions**
- Distrib H13 Teachers' Retirement System of Louisiana
Comparison of Present Value of Future Reduced Pension and 65% of
Pay Disability Benefits to Current Plan by Age and Service Groups:
Alternative Actuarial Assumptions**

Introduction

Milliman & Robertson was retained by the Auditor's Office of the State of Louisiana to review studies of preretirement death and disability benefits and then compare the expected values of alternative death and disability benefits on employees covered by the Louisiana State Employees' Retirement System and the Louisiana Teachers' Retirement System. The actuarial measurements were made on the July 1, 1993 valuation data as received from the State of Louisiana.

These measurements must be viewed as estimates; actual results will differ from our measurements. In order to provide you with an indication of the sensitivity of our measurements, we used two different sets of actuarial assumptions. The first set of assumptions (current assumptions) is the assumptions used in valuing each of the retirement systems. The second set of actuarial assumptions (alternative assumptions) incorporates the underlying morbidity and mortality rates that might be used to self fund an in-service disability income plan. A summary of the actuarial assumptions used in the calculations is included as Appendix 1.

A description of several of the terms on the exhibits illustrating the cost of these plans is in order.

1. The terms "accrued liability" and "unit credit normal cost" have the same meaning as they do in the actuarial valuation report of these retirement systems. Unit credit normal cost measures the value of benefits earned in a year and takes into account future salary increases that will be applied when calculating a future benefit to the year of service earned this year. This amount includes both employee normal cost and employer normal cost. Accrued Liability measures the value of benefits earned as of the valuation date and takes into account future salary increases that will be applied when calculating a future benefit to service earned as of the valuation date.
2. The "pension funding" under the current assumptions cost measures shows the funding requirement of this benefit as if there were no assets allocated to this liability. The amortization period is 36 years and assumes that the amortization payments will increase by 4.5% each year which corresponds to the amortization of a new amount included in the accrued liability for the plan year beginning July of 1993.
3. "1 year term cost" is a short-term cost allocation method. It is the expected value of the benefits to be paid in the plan year following the valuation.
4. "Aggregate cost" is a long-term allocation cost method in which the costs of the plan are spread evenly as a percent of pay over the working lifetime of the employees. First, the ratio of the present value of future benefits to present value of future salary is determined. Then, that ratio is applied to expected compensation for the year as a means of allocating costs for the plan year.

Section A - Cafeteria Plans

Develop a standard statewide cafeteria plan. Compare this standard cafeteria plan to the state's current cafeteria plans to include research and comment on Internal Revenue Service (IRS) regulations regarding discrimination testing. Review and comment on the audit staff's assessment of legal, administrative, and other obstacles to implementing a statewide cafeteria plan in Louisiana.

Sections

Study of Cafeteria Plans and Reimbursement Accounts summarizes the study of cafeteria plans in both the public and private sector.

Standard Cafeteria Plan is our recommendations for the first step of developing a standard cafeteria plan.

Study of Cafeteria Plans and Reimbursement Accounts

Milliman & Robertson reviewed available studies of cafeteria and medical reimbursement accounts. We reviewed Employee Benefits in Medium and Large Private Establishment, 1993 published in November 1994 by the U.S. Department of Labor and Employee Benefits in State and Local Governments, 1992 published in July 1994 by the U.S. Department of Labor. The following is a discussion of these surveys.

Table A1 documents participant coverage in 1993 for employees of medium and large private establishments ('private employees') and participant coverage in 1992 for employees of local and state governments ('government employees'). In each instance approximately fifty percent were covered by a medical reimbursement plan. Only twelve percent of the private employees and five percent of government employees were covered by flexible benefit plans. What Table A1 does not illustrate is the increasing popularity of these plans. For example, reimbursement accounts are offered to fifty percent of government employees in 1992 up from thirty percent in 1991.

Table A2 documents the types of expenses covered in the reimbursement plans. State and local governments are more likely to reimburse health care premiums whereas private employers are more likely to reimburse health care expenses. Almost as popular as medical expense reimbursement is dependent care reimbursement.

Tables A3 through A7 document how various benefits available to employees were financed. In many instances where employee financing is required, the benefits could be included in a cafeteria plan where employees may use pretax dollars.

Table A3 documents employer financing of employees' medical care. State and local governments providing employee medical care benefits are more likely to wholly finance than private establishments. Fifty-seven percent of governmental employees covered by medical care benefits had those benefits wholly financed whereas only thirty-seven percent of private employees had those benefits wholly financed. Table A4 documents employer financing of medical care for the employee's family. Employers providing these benefits overwhelmingly provided them on a cost sharing basis. Surprisingly, thirty-four percent of teachers who were provided medical care benefits for their family had these benefits entirely paid by their employer.

Table A5 documents employer financing of employees' dental care. State and local governments providing employee dental care benefits are much more likely to wholly finance than private establishments. Seventy-one percent of governmental employees covered by medical care benefits had those benefits wholly financed whereas only forty-four percent of private employees had those benefits wholly financed. Table A6 documents employer financing of dental care for the

employee's family. Private employers providing these benefits overwhelmingly provided them on a cost sharing basis while forty-eight percent of government employees had these benefits wholly financed.

Table A7 documents employer financing of sickness and accident insurance. Seventy five percent of employees covered with this insurance of both private and government employers had these benefits wholly financed by the employer.

Among the government employees, the most common flexible benefit choices were dental benefits, various levels of life insurance, participation in a medical plan, and various levels of long term disability insurance. Some employees could also choose separate vision plans, accidental death & dismemberment, and short term disability coverage. Fifty percent of the employees were required to purchase minimum levels of coverage, most often a basic level of life insurance. Thirty three percent of the employees were allowed to deposit unused credits into a reimbursement account. Many employees were allowed to fund benefits with pretax earnings if their allotment of benefit credits was not enough to purchase the desired coverage.

Standard Cafeteria Plan

Unfortunately, in depth statistical studies of cafeteria plans do not seem to be available. From the statistical data that we reviewed, the State of Louisiana may even be in the forefront. However, we think that in the next several years cafeteria plans will flourish as employers see cafeteria plans as a means to streamline employee benefit costs and employees see cafeteria plans as a means to getting the benefits they really need and want. In order to develop a standard cafeteria plan for employees of the State of Louisiana, we believe that an inventory of the State's cafeteria plans in force should first be made. The benefits offered, employee participation rates, costs of the various benefits, types of administration, and types of employee communications should be analyzed.

A desire has been expressed to install a medical reimbursement account as soon as possible. As a standard cafeteria plan would be the ideal vehicle for life insurance coverage, it may be advantageous to offer these two new programs at the same time. Dependent care reimbursement accounts are also very popular and it may be desirous to implement this account also. The mainstay of most cafeteria plans is medical coverage which is outside the scope of this section of the report. However, as a conclusion in the employer financing survey, there are many options as to how to include the financing of this coverage in the plan.

Questions have been raised on how to apply the nondiscrimination requirements of cafeteria plans to test that the plans do not favor the highly compensated employees. Are all employees of the State treated as being employed as a single employer? Or may the State be treated as having separate lines of business? The Internal Revenue Service has not issued regulations of how private employers must apply these rules, much less as to how state and local governments must apply these rules. Probably ninety-five percent of the State's highly compensated employees are concentrated in the judges in the LASERS and LSU Tiger and university employees in the Teachers' Retirement System. Testing these "separate lines of business" may be a first step.

When reviewing the design of a standard cafeteria plan, the following must also be taken into consideration. A specific benefit must satisfy not only the applicable rules under Code Section 125, but the governing rules for the specific benefit. If the cafeteria plan fails to meet the discrimination tests, only the benefits of the highly compensated employees will be taxed. A discriminatory cafeteria plan is not disqualified as a cafeteria plan. Even if discriminatory, employer contributions may still be excluded by nonhighly compensated employees.

Table A1

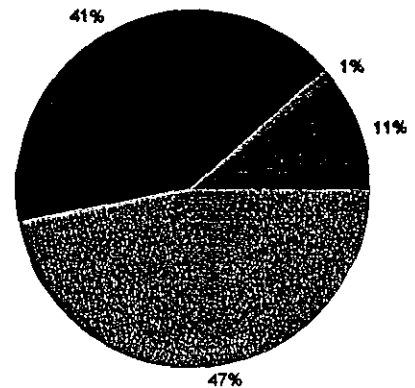
Flexible Benefits and Reimbursement Accounts

1992-1993 Bureau of Labor Statistics Surveys

Coverage

Private Establishments

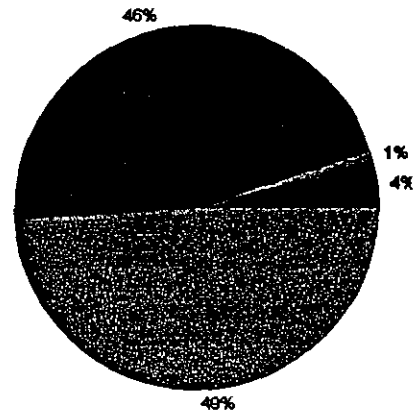
- 11% Flexible benefits & reimbursement account
- 1% Flexible benefits plan only
- 41% Freestanding reimbursement account
- 47% No such plan



Coverage

State & Local Government

- 4% Flexible benefits & reimbursement account
- 1% Flexible benefits plan only
- 46% Freestanding reimbursement account
- 49% No such plan



Coverage

State & Local Government - Teachers

- 5% Flexible benefits & reimbursement account
- 2% Flexible benefits plan only
- 39% Freestanding reimbursement account
- 54% No such plan

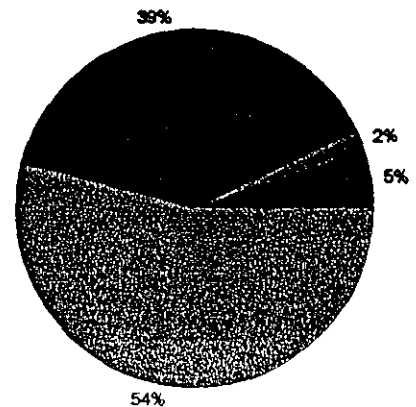


Table A2

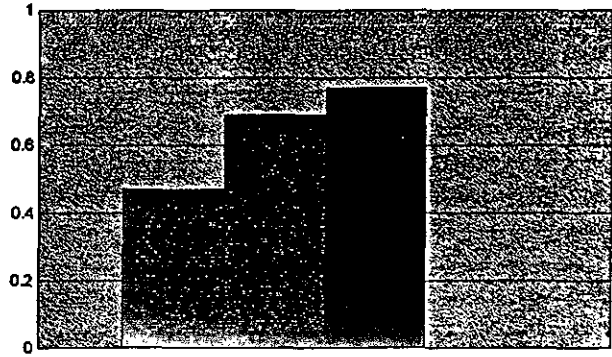
Reimbursement Accounts

1992-1993 Bureau of Labor Statistics Surveys

Expenses Covered

Private Establishments

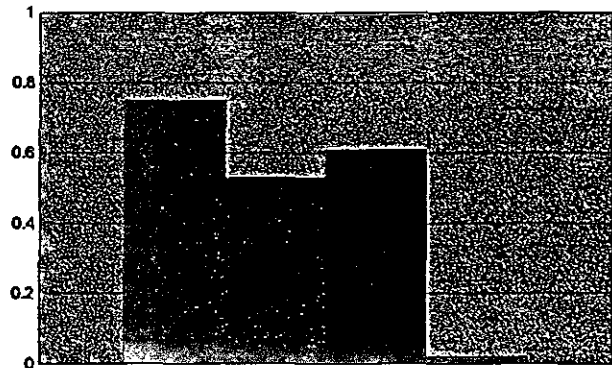
- 47% Health Care Premiums
- 69% Health Care Expenses
- 77% Dependent Care
- 0% Legal Expenses



Expenses Covered

State & Local Government

- 75% Health Care Premiums
- 53% Health Care Expenses
- 61% Dependent Care
- 2% Legal Expenses



Expenses Covered

State & Local Government - Teachers

- 77% Health Care Premiums
- 53% Health Care Expenses
- 56% Dependent Care
- 2% Legal Expenses

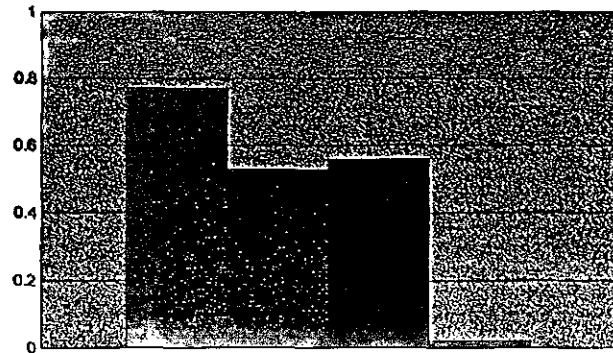


Table A3

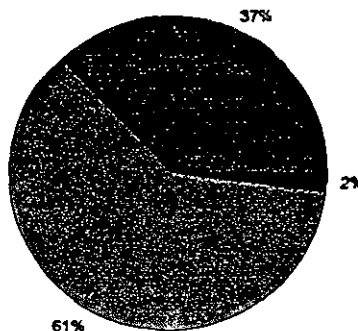
Employer Financing

1992-1993 Bureau of Labor Statistics Surveys

Medical Care - Employee

Private Establishments

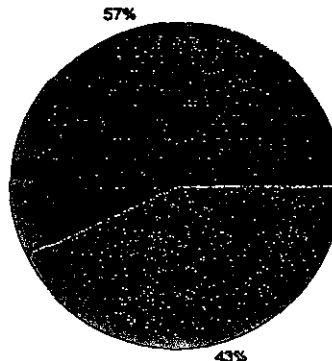
- 37% Wholly Employer Financed
- 61% Partially Employer Financed
- 2% Not determinable



Medical Care - Employee

State & Local Government

- 57% Wholly Employer Financed
- 43% Partially Employer Financed



Medical Care - Employee

State & Local Government - Teachers

- 63% Wholly Employer Financed
- 37% Partially Employer Financed

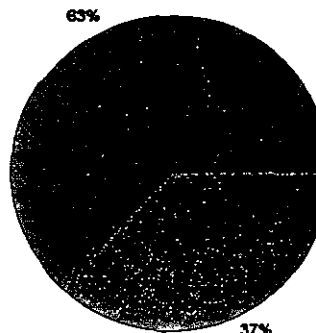


Table A4

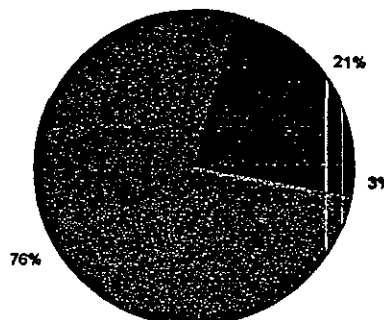
Employer Financing

1992-1993 Bureau of Labor Statistics Surveys

Medical Care for Family

Private Establishments

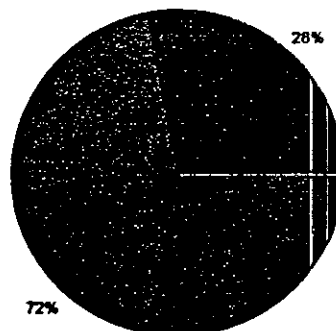
21% Wholly Employer Financed
76% Partially Employer Financed
3% Not determinable



Medical Care for Family

State & Local Government

28% Wholly Employer Financed
72% Partially Employer Financed



Medical Care for Family

State & Local Government - Teachers

34% Wholly Employer Financed
76% Partially Employer Financed

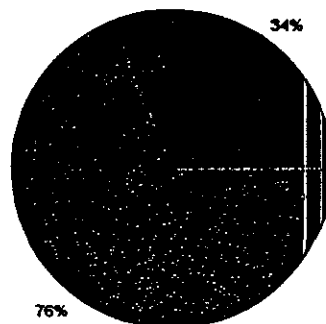


Table A5

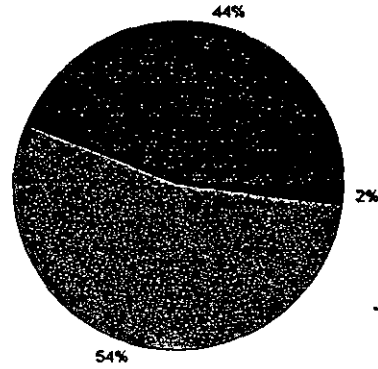
Employer Financing

1992-1993 Bureau of Labor Statistics Surveys

Dental Care - Employee

Private Establishments

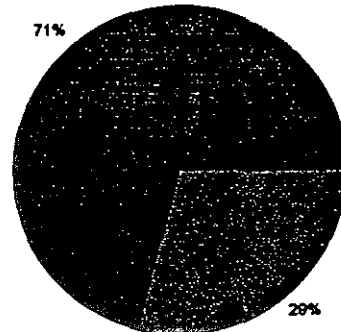
- 44% Wholly Employer Financed
- 54% Partially Employer Financed
- 2% Not determinable



Dental Care - Employee

State & Local Government

- 71% Wholly Employer Financed
- 29% Partially Employer Financed



Dental Care - Employee

State & Local Government - Teachers

- 70% Wholly Employer Financed
- 30% Partially Employer Financed

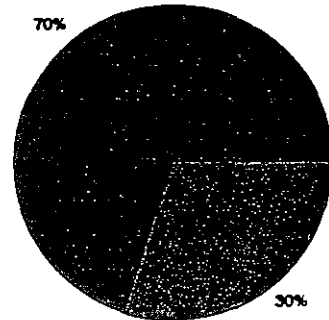


Table A6

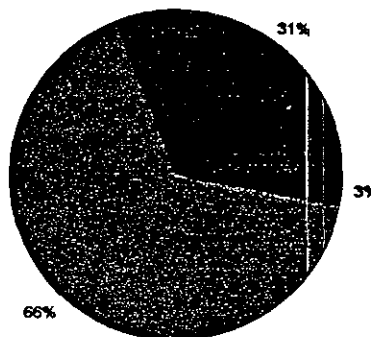
Employer Financing

1992-1993 Bureau of Labor Statistics Surveys

Dental Care for Family

Private Establishments

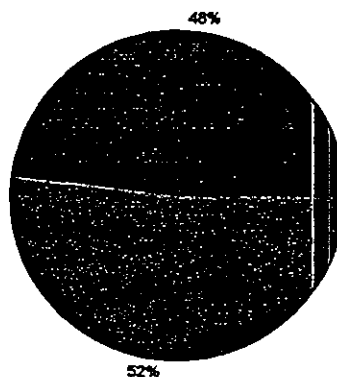
- 31% Wholly Employer Financed
- 66% Partially Employer Financed
- 3% Not determinable



Dental Care for Family

State & Local Government

- 48% Wholly Employer Financed
- 52% Partially Employer Financed



Dental Care for Family

State & Local Government - Teachers

- 50% Wholly Employer Financed
- 50% Partially Employer Financed

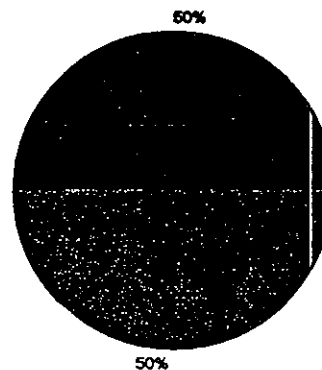


Table A7

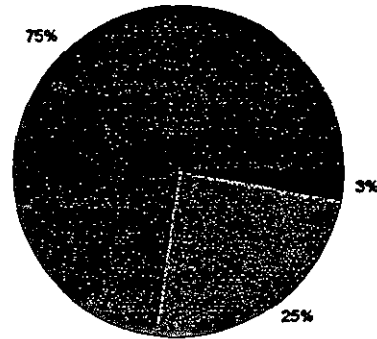
Employer Financing

1992-1993 Bureau of Labor Statistics Surveys

Sickness & Accident Insurance

Private Establishments

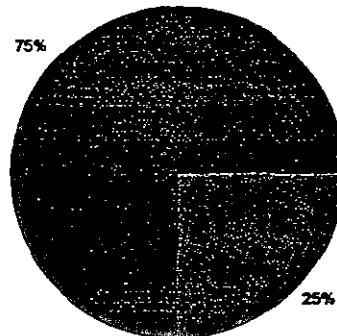
- 75% Wholly Employer Financed
- 25% Partially Employer Financed
- 3% Not determinable



Sickness & Accident Insurance

State & Local Government

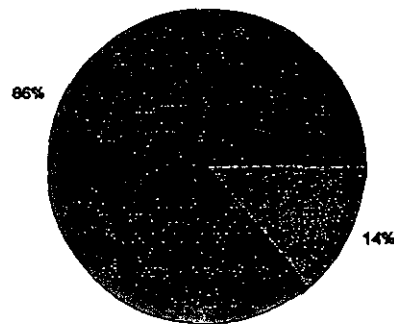
- 75% Wholly Employer Financed
- 25% Partially Employer Financed



Sickness & Accident Insurance

State & Local Government - Teachers

- 86% Wholly Employer Financed
- 14% Partially Employer Financed



Section B - PreRetirement Death and Disability Benefit Surveys

Research and document "standard" in-service death and "standard" disability benefit plans for the purposes of comparison. Review published benefit studies to include other state governments and private sector entities focusing on employee benefits provided in the event of the death or disability of the employee. The review will provide plan structure information, including who does and does not benefit under the plan, information as to the amount, timing and form of benefit provided, coordination of benefits with Social Security Old Age Survivor and Disability Income (OASDI), and information relating to cost sharing between employees and employers. This review would also provide an outline of the benefit structure of OASDI. Finally, the review will document public and private benefits.

Sections

In-Service Death Benefit Surveys summarizes the study of in-service preretirement death benefits provided by employers in both the public and private sector.

Disability Benefit Survey summarizes the study of in-service disability benefits in both the public and private sector.

OASDI Benefit Structure Summary details the eligibility requirements of covered workers for Social Security benefits.

OASDI Benefits for Dependents of Retired or Disabled Workers details the eligibility requirements of dependents of covered workers for retirement Social Security benefits.

OASDI Survivors' Benefits details the eligibility requirements of dependents of deceased covered workers for survivor Social Security monthly benefits.

OASDI Lump-Sum Death Payment details the eligibility requirements of dependents of deceased covered workers for survivor Social Security lump-sum benefits.

Coordination of Benefits with OASDI summarizes the study of integrating retirement pension benefits with Social Security in both the public and private sector.

In-Service Death Benefit Surveys

Milliman & Robertson was asked to review available studies of in-service death benefits of both private employers and state and local governments. We reviewed Employee Benefits in Medium and Large Private Establishment, 1993 published in November 1994 by the U.S. Department of Labor and Employee Benefits in State and Local Governments, 1992 published in July 1994 by the U.S. Department of Labor. The following is a discussion of these surveys.

Almost universally all of the full-time employees of medium and large private establishments ('private employees') covered in these surveys have basic life insurance coverage. Coverage is usually provided on a non-contributory basis. Eighty-eight percent of full-time employees of local and state governments ('government employees') covered in these surveys have basic life insurance coverage with thirteen percent of these employees required to contribute to at least part of the cost. Table B1 documents these findings. Where employee contribution were required, the most prevalent method was a dollar amount based on coverage. Typically, the cost was less than 20 cents per \$1,000 of coverage (Workplace).

Table B2 documents the service requirement for eligibility of life insurance benefits in 1993 for private employees and participant coverage in 1992 for government employees. In each instance, overwhelmingly, the service requirement is three months or less.

The amount of basic insurance coverage predominantly takes one of two forms: (1) a fixed multiple of earnings or (2) a fixed amount. Table B3 documents the type of life insurance offered. Private employees are more often offered basic insurance coverage as a fixed percentage of earnings. Government employees are more often offered basic insurance coverage as a flat dollar amount, particularly teachers.

Table B4 documents the earnings multiple used when the amount of basic insurance coverage is to be an earnings multiple. In this instance, over half of the private employees have one times earnings as their basic coverage. Over forty percent of government employees have two or more times earnings as their basic coverage and their average amount was 1.8 times earnings. As an aside, the earnings multiple for private employees decreased slightly from 1991 to 1993.

Table B5 documents the flat dollar amount used when the amount of basic life insurance coverage is to be a flat dollar amount. In this instance again, government employees tend to have a higher level of coverage than private employees with over thirty-five percent of these government workers having coverage of \$20,000 or more.

Table B6 documents supplemental coverage availability. Over half of the employees have supplemental coverage availability. Supplemental coverage is generally 1-3 times earnings. Eighty

percent of government employees are required to pay the full premium for supplemental coverage.

Dependent coverage was available to forty percent of the government employees with seventy-five percent having to pay the full premium.

In both the private and public sector, plans (other than pension plans) providing a monthly income to the surviving member's family is rare.

Eighty-six percent of government participants in defined benefit pension plans are in plans that provide a benefit to the spouse. Eighty percent of these participants are covered by a qualified preretirement survivor annuity (QPSA). A QPSA is a requirement of private sector plans. It provides an annuity to the spouse which is between fifty and one hundred percent of the benefit which would have been payable to the employee if he had retired on the day before his death and had elected to receive a joint and survivor annuity. This benefit is then the accrued benefit but it is not payable until the date the employee would have eligible for early retirement, it would have the early retirement reduction factor applied to it, and it is even further reduced to reflect that the joint and survivor form of payment is a more expensive form of payment. By far the most predominant pre-retirement death benefit in pension plans covering private employees is the QPSA. Plans providing an annuity equal to a flat percentage of the accrued benefit cover only five percent of private employees. We recommend that at least this survivor benefit to the spouse with a reduction for payments commencing before age sixty-five be provided from the State's pension plans.

A significant finding is what was not mentioned in the surveys - preretirement annuity benefits being paid to the children of the deceased employee. Evidently, this benefit must be rarely offered.

Table B7 is a compilation from the Workplace Economics, Inc. 1994 State Employee Benefit Survey of life insurance plans of states in the southeastern United States. But, please note, only six of the states in the US require employee contributions and still Louisiana is paying the highest cost.

Disability Benefit Survey

Milliman & Robertson was asked to review available studies of in-service disability benefits of both private employers and state and local governments. We reviewed Employee Benefits in Medium and Large Private Establishment, 1993 published in November 1994 by the U.S. Department of Labor and Employee Benefits in State and Local Governments, 1992 published in July 1994 by the U.S. Department of Labor. The following is a discussion of these surveys.

Forty-one percent of full-time employees of medium and large private establishments ('private employees') covered in these surveys have long term disability insurance coverage. When employee contributions are required, it generally is due to the fact that they are in a cafeteria plan. Twenty-eight percent of full-time employees of local and state governments ('government employees') covered in these surveys have long term disability coverage with twenty percent of these employees required to contribute to at least part of the cost. Table B8 documents this information.

Table B9 documents the service requirement for eligibility of long term disability insurance benefits in 1993 for private employees and participant coverage in 1992 for government employees. In each instance, approximately forty percent of the participants were in plans with no service requirement, but approximately another eighteen percent were in plans requiring one year or more of service to participate.

Table B10 documents the waiting period before long term disability benefits commence. The waiting period for more than half of the private employees is six months which is also the waiting period for Social Security benefits. The waiting for government employees tends to be shorter than the waiting period for private employees.

By far the most common long term disability benefit offered is based on a fixed percent of predisability earnings. Table B11 documents the different benefit amounts being offered. For those private employees covered by a Long term disability plan, sixty-five percent are covered by a plan offering sixty to sixty-nine percent of pay while sixty-eight percent of those government employees covered by a Long term disability plan are covered by plans offering sixty to sixty-nine percent of pay.

Table B12 documents ancillary benefits provided in connection with long term disability benefits.

In defined benefit pension plans, disability benefits for government employees were provided to ninety-four percent of plan participants with ninety-five percent of those participants receiving immediate benefits. In contrast to Long term disability plans where the average service requirement is six months, the service requirement in pension plans for disability benefits is often five to ten years. In those instances when a Long term Disability plan is offered (which usually

would provide larger benefits), the benefits provided by the pension plan are deferred until the Long term Disability benefits cease (usually at age sixty-five) and are often calculated assuming the employee had remained in service until such date. Table B10 documents the service requirement and benefit provisions of disability benefits provided in defined benefit pension plan. In contrast to government sponsored pension plans, only sixty-nine percent of the private employees covered were provided immediate benefits.

OASDI Benefit Structure Summary

OASDI provides significant benefits to covered workers and their beneficiaries. OASDI benefits are financed by joint worker/employer payroll taxes. OASDI coverage is generally universal in the private sector, and pervades the public sector. Louisiana is one of six states not participating in OASDI. Table B11 provides an indication of the significance of retirement income benefits provided by OASDI. The Table assumes constant future earnings to social security retirement age, 1994 compensation is the amount shown in the column heading, 1993 compensation equals 1994 compensation multiplied by .991 ($q = .9\%$) and compensation for 1992 and prior years equals 1993 compensation multiplied by the ratio of average earnings for the year in question to average earnings for 1993 .

<i>Monthly social security benefits can be paid to—</i>	<i>If the worker—</i>
A retired worker age 62 or over	Is fully insured.
A disabled worker under age 65	Would have been fully insured had he or she attained age 62 in the month the disability began and (except in the case of a person disabled because of blindness) has 20 quarters of coverage out of the 40 calendar quarters ending with the quarter in which the disability began.
A worker disabled before age 31 who does not have sufficient quarters of coverage to meet the above requirement.	Has quarters of coverage in one-half of the quarters elapsing in the period after attaining age 21 and up to and including the quarter of becoming disabled, but no fewer than 6, or, if disabled in a quarter before attaining age 24, he or she has 6 quarters of coverage in the 12 calendar-quarter period immediately before he or she became disabled.

OASDI Benefits for Dependents of Retired or Disabled Workers

<i>Monthly social security benefits can be paid to--</i>	<i>If the worker--</i>
<p>The spouse of a person entitled to disability or retirement insurance benefits, if he or she is:</p> <ul style="list-style-type: none">(a) Age 62 or over (may be divorced spouse in certain circumstances); or(b) Caring for a child who is under age 16 or disabled and entitled to benefits.	<p>Is fully insured or insured for disability benefits whichever is applicable, as shown above.</p>
<p>A dependent, unmarried child of a person entitled to disability or retirement insurance benefits if the child is:</p> <ul style="list-style-type: none">(a) Under age 18; or(b) Age 18 or over and qualifies as a full-time student; or(c) Age 18 or over and under a disability which began before the child reached age 22.	<p>Is insured for retirement or disability benefits, whichever is applicable, as shown above.</p>

OASDI Survivors' Benefits

<i>Monthly social security benefits can be paid to-</i>	<i>If the worker--</i>
A widow or widower (may be surviving divorced spouse in certain circumstances) age 60 or over	Is fully insured.
A widow or widower and, under certain conditions, a surviving divorced spouse, if the widow or widower or divorced spouse is caring for a child entitled to benefits if the child is under age 16 or disabled.	Is either fully or currently insured.
A disabled widow or widower (may be surviving divorced spouse in certain circumstances) age 0 or over but under age 60, whose disability begins within a certain period	Is fully insured.
A dependent, unmarried child of a deceased worker if the child is: (a) Under age 18; or (b) Age 18 or over and qualifies as a full-time student; or (c) Age 18 or over and under a disability which began before the child reached age 22.	Is either fully or currently insured.
The dependent parents, age 62 or over, of the deceased worker	Is fully insured.

OASDI Lump-Sum Death Payment

<i>The lump-sum death payment will be paid in the following order of priority—</i>	<i>If the worker is—</i>
<p>(a) The widow(er) of the deceased wage earner who was living in the same household as the deceased wage earner at the time of death;</p> <p>(b) The widow(er) (excluding a divorced spouse) who is eligible for or entitled to benefits based on the deceased wage earner's record for the month of death;</p> <p>(c) Children who are eligible for or entitled to benefits based on the deceased wage earner's record for the month of death.</p> <p>If no surviving widow(er) or child, as defined above, survives, no lump sum is payable.</p>	<p>Either fully or currently insured.</p>

Coordination of Benefits with OASDI

In 1993, forty-eight percent of the private employees covered by pension plans had their benefits integrated with Social Security down from fifty-four percent in 1991. This may be attributed to finalized Internal Revenue Service regulations which have limited Social Security integration as a result of the Tax Reform Act of 1986.

State and local governments do not coordinate with Social Security the way that private employers do. In 1992, only ten percent of government employees covered by pension plans had their benefits integrated with Social Security. Even among those pension participants who were covered by Social Security only thirteen percent had their benefits integrated with Social Security. In the 1994 Employee Benefits survey forty-three states reported that most of their employees were covered by Social Security yet only nine had integrated plans. Table B15 documents the percentage of employees in defined benefit plans whose pension benefits are integrated with Social Security.

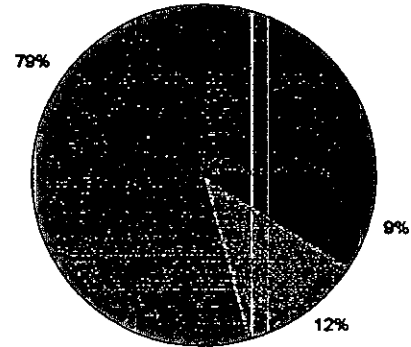
Table B1
Life Insurance

1992-1993 Bureau of Labor Statistics Surveys

Coverage

Private Establishments

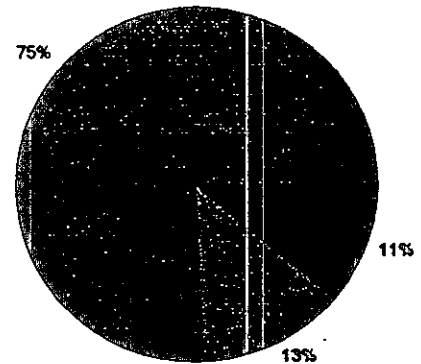
79% Yes. Wholly Employer Financed
12% Yes. Partly Employer Financed
9% Not Covered



Coverage

State & Local Government

75% Yes. Wholly Employer Financed
13% Yes. Partly Employer Financed
11% Not Covered



Coverage

State & Local Government - Teachers

73% Yes. Wholly Employer Financed
15% Yes. Partly Employer Financed
13% Not Covered

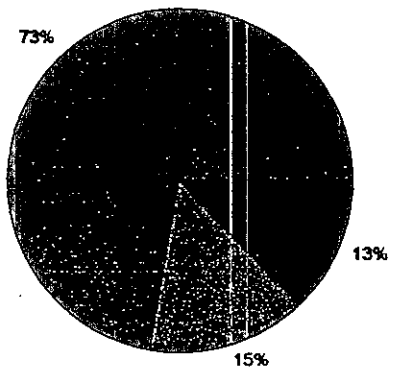


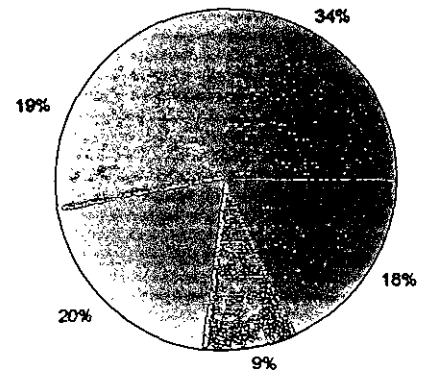
Table B2
Life Insurance

1992-1993 Bureau of Labor Statistics Surveys

Service Requirement

Private Establishments

34%	No Service Requirement
19%	Less than 3 Months
20%	3 Months
9%	6 Months or More
18%	Not Determinable



Service Requirement

State & Local Government

36%	No Service Requirement
12%	Less than 3 Months
7%	3 Months
7%	6 Months or More
37%	Not Determinable

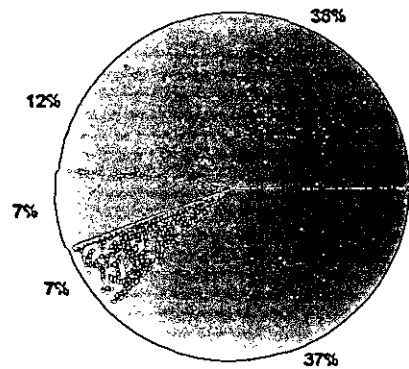


Table B3

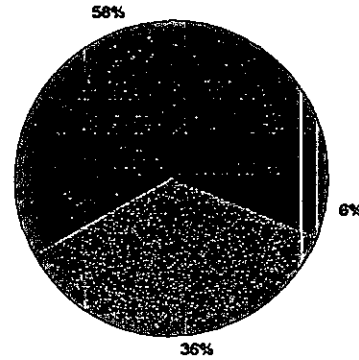
Life Insurance

1992-1993 Bureau of Labor Statistics Surveys

Basic Coverage

Private Establishments

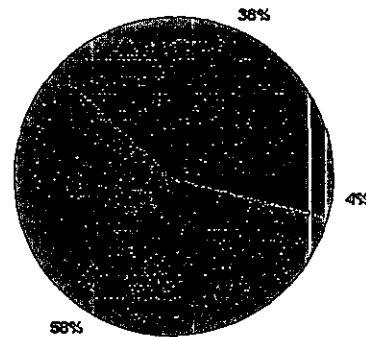
58% Fixed Multiple of Earnings
36% Flat Dollar Amount
6% Other



Basic Coverage

State & Local Government

38% Fixed Multiple of Earnings
58% Flat Dollar Amount
4% Other



Basic Coverage

State & Local Government - Teachers

31% Fixed Multiple of Earnings
67% Flat Dollar Amount
2% Other

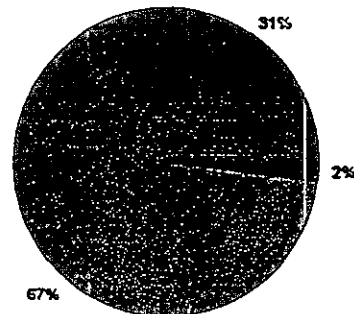


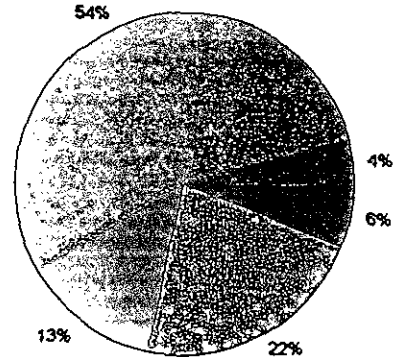
Table B4
Life Insurance

1992-1993 Bureau of Labor Statistics Surveys

Earnings Multiple

Private Establishments

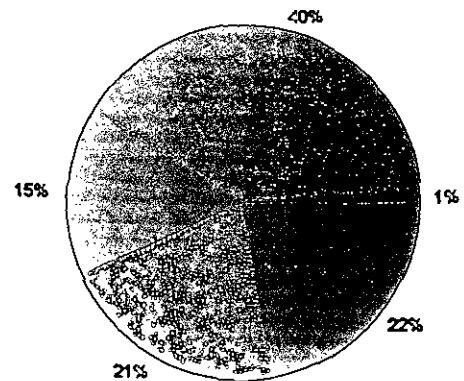
4%	Less than 1.0
54%	1.0
13%	1.1 to 1.9
22%	2.0
6%	More than 2.0



Earnings Multiple

State & Local Government

1%	Less than 1.0
40%	1.0
15%	1.1 to 1.9
21%	2.0
22%	More than 2.0



Earnings Multiple

State & Local Government - Teachers

0%	Less than 1.0
35%	1.0
19%	1.1 to 1.9
26%	2.0
20%	More than 2.0

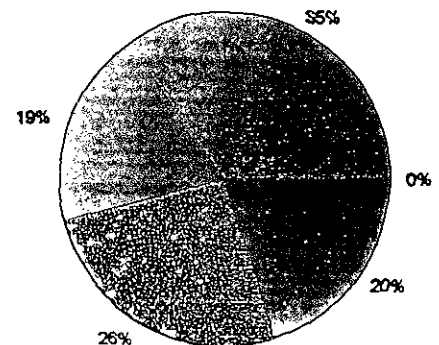


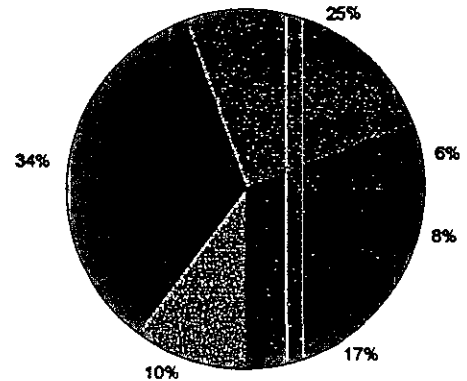
Table B5
Life Insurance

1992-1993 Bureau of Labor Statistics Surveys

Flat Dollar Amount - Basic

Private Establishments

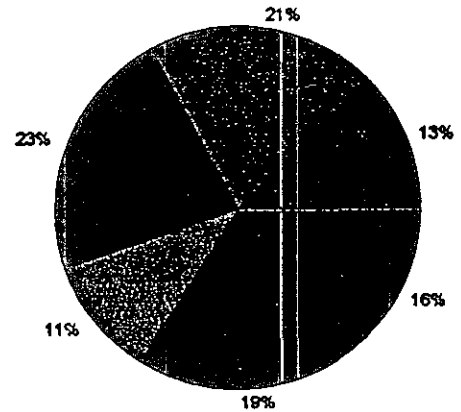
6%	Less than \$5,000
25%	\$5,000 to \$9,999
34%	\$10,000 to \$14,999
10%	\$15,000 to \$19,999
17%	\$20,000 to \$29,999
8%	\$30,000 plus



Flat Dollar Amount - Basic

State & Local Government

13%	Less than \$5,000
21%	\$5,000 to \$9,999
23%	\$10,000 to \$14,999
11%	\$15,000 to \$19,999
19%	\$20,000 to \$29,999
16%	\$30,000 plus



Flat Dollar Amount - Basic

State & Local Government - Teachers

15%	Less than \$5,000
21%	\$5,000 to \$9,999
17%	\$10,000 to \$14,999
5%	\$15,000 to \$19,999
18%	\$20,000 to \$29,999
23%	\$30,000 plus

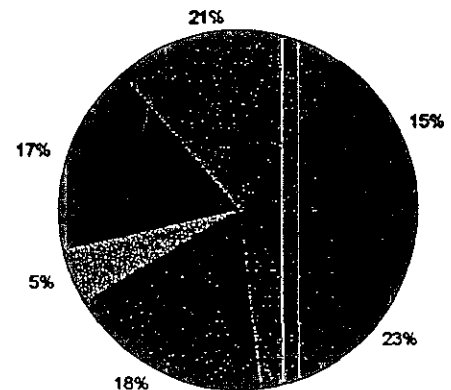


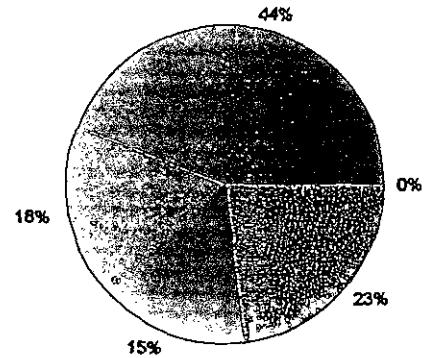
Table B6
Life Insurance

1992-1993 Bureau of Labor Statistics Survey

Supplemental Coverage Availability

Private Establishments

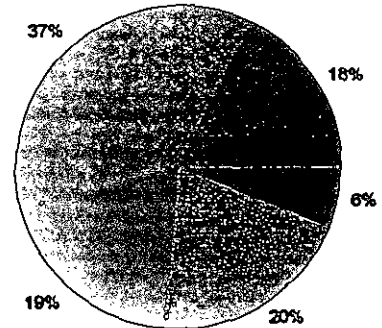
- 44% Yes with multiple of earnings formula
- 18% Yes with flat dollar amount formula
- 15% No with multiple of earnings formula
- 23% No with flat dollar amount formula
- 0% Not available



Supplemental Coverage Availability

State & Local Government

- 18% Yes with multiple of earnings formula
- 37% Yes with flat dollar amount formula
- 19% No with multiple of earnings formula
- 20% No with flat dollar amount formula
- 6% Not available



Supplemental Coverage Availability

State & Local Government - Teachers

- 12% Yes with multiple of earnings formula
- 40% Yes with flat dollar amount formula
- 16% No with multiple of earnings formula
- 26% No with flat dollar amount formula
- 6% Not available

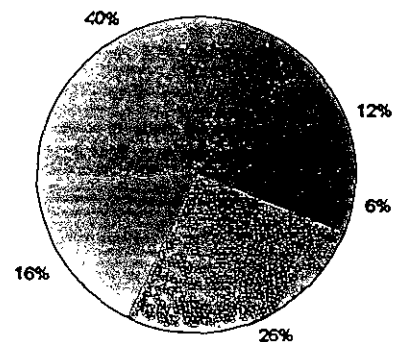


Table B7

Workplace Economics, Inc. 1994 State Employee Benefit Survey

State	Provided	Monthly cost to state \$/1000	Based on age	Based on Salary	Fixed Amount	Maximum \$ Coverage	Miscellaneous
Alabama	No	--	--	Yes	--	--	Provided through Retirement Plan
Arkansas	Yes	\$0.56 (Included in health ins contribution)	Yes	No	No	\$5,000	\$45,000 employee may purchase additional coverage
Florida	Yes	Varies depending on age, status, etc.	Yes	Yes	No	no limit	
Georgia	Yes	\$0.25 (employee also pays \$0.25)	No	Yes	No	Salary	employee may purchase additional 2 X salary
Kentucky	Yes	\$0.18	No	No	Yes	\$6,560	
Mississippi	No	\$0.17 (employee also pays \$0.17)	No	Yes	No	\$40,000	
North Carolina	No	--	No	Yes	No	\$50,000	Provided through Retirement Plan
Oklahoma	Yes	\$0.33	No	No	Yes	\$20,000	
South Carolina	Yes	\$0.233	No	No	Yes	\$3,000	
Tennessee	Yes	--	No	Yes	No	\$50,000	
Texas	Yes	Included in health ins contribution	No	No	Yes	\$50,000	employee may purchase additional 4 X Salary coverage
Virginia	Yes	\$0.36	No	Yes	No	2 * Salary	
West Virginia	Yes	\$0.41	No	No	Yes	\$10,000	\$50,000 employee may purchase additional coverage
Louisiana	Yes	\$0.44	No	Yes	No	1.5 X Salary up to \$40,000	

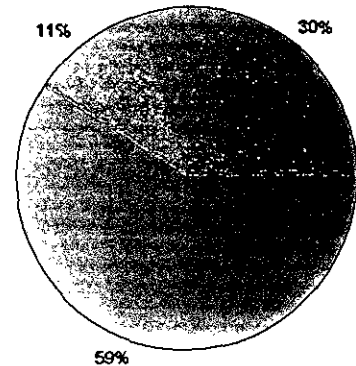
Table B8
Disability Benefits

1992-1993 Bureau of Labor Statistics Surveys

Coverage

Private Establishments

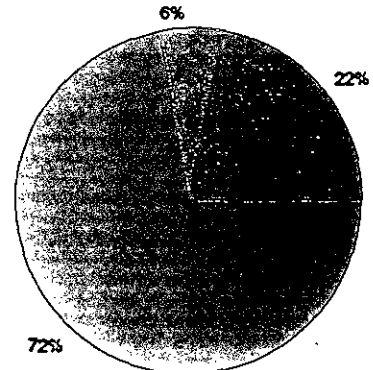
30% Yes. Wholly Employer Financed
11% Yes. Partly Employer Financed
59% Not Covered



Coverage

State & Local Government

22% Yes. Wholly Employer Financed
6% Yes. Partly Employer Financed
72% Not Covered



Coverage

State & Local Government - Teachers

27% Yes. Wholly Employer Financed
6% Yes. Partly Employer Financed
67% Not Covered

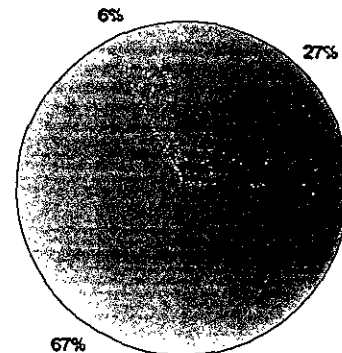


Table B9

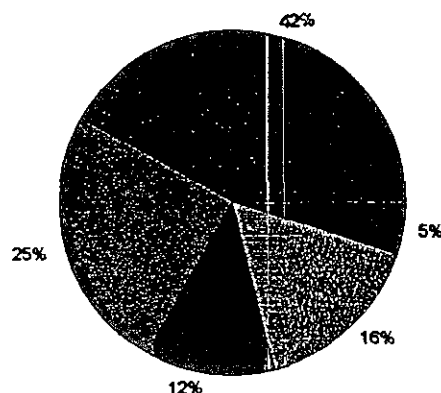
Disability Benefits

1992-1993 Bureau of Labor Statistics Surveys

Service Requirement

Private Establishments

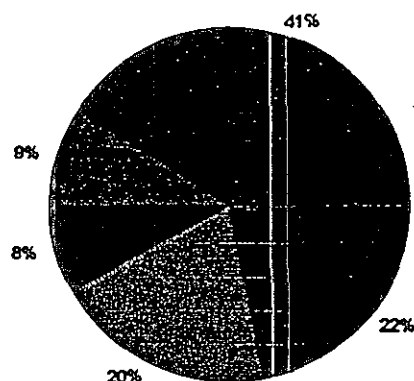
42%	No Service Requirement
25%	Less than 6 Months
12%	6 Months
16%	12 Months or More
5%	Not Determinable



Service Requirement

State & Local Government

41%	No Service Requirement
9%	Less than 6 Months
8%	6 Months
20%	12 Months or More
22%	Not Determinable



Service Requirement

State & Local Government - Teachers

44%	No Service Requirement
5%	Less than 6 Months
1%	6 Months
18%	12 Months or More
31%	Not Determinable

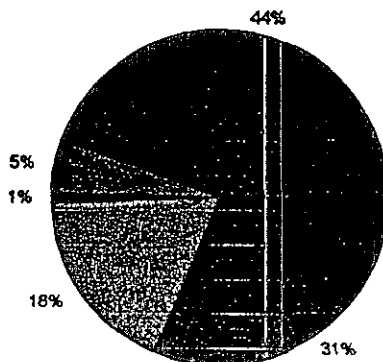


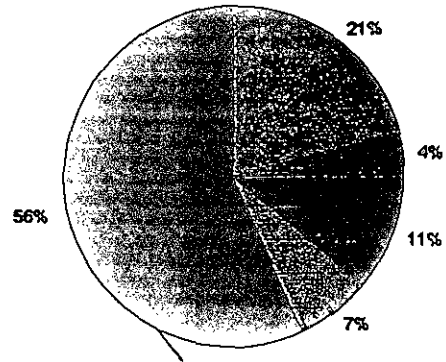
Table B10
Disability Benefits

1992-1993 Bureau of Labor Statistics Surveys

Length of Waiting Period

Private Establishments

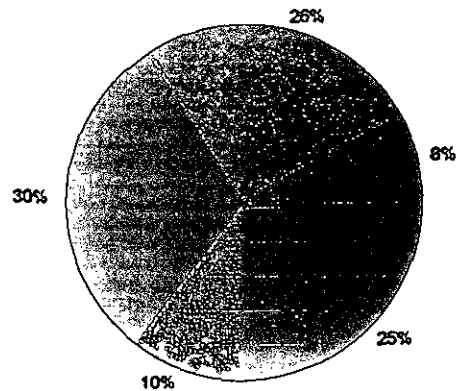
4%	Less than 3 Months
21%	3-5 Months
56%	6 Months
7%	Greater than 6 Months
11%	Expiration of short-term benefits



Length of Waiting Period

State & Local Government

8%	Less than 3 Months
26%	3-5 Months
30%	6 Months
10%	Greater than 6 Months
25%	Expiration of short-term benefits



Length of Waiting Period

State & Local Government - Teachers

9%	Less than 3 Months
17%	3-5 Months
33%	6 Months
1%	Greater than 6 Months
36%	Expiration of short-term benefits

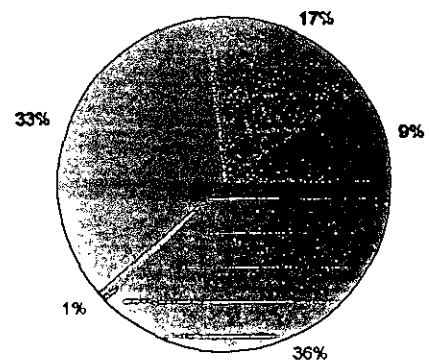


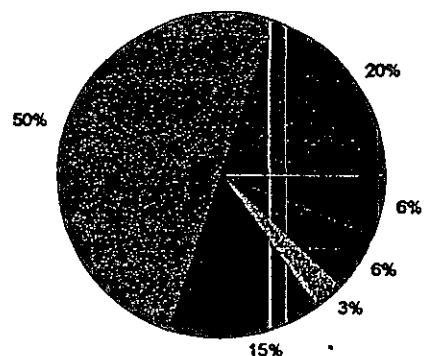
Table B11
Disability Benefits

1992-1993 Bureau of Labor Statistics Surveys

Benefit Amount

Private Establishments

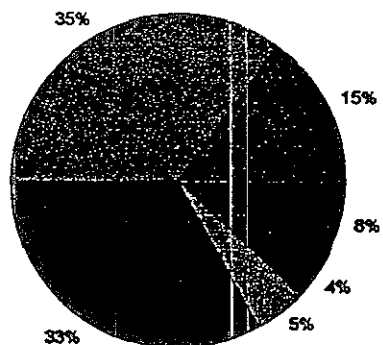
- 20% Fixed Percent of Earnings - 50%
- 50% Fixed Percent of Earnings - 60%
- 15% Fixed Percent of Earnings - 60 - 69%
- 3% Fixed Percent of Earnings - 70%+
- 6% Percent Varies by Earnings
- 6% Other



Benefit Amount

State & Local Government

- 15% Fixed Percent of Earnings - 50%
- 35% Fixed Percent of Earnings - 60%
- 33% Fixed Percent of Earnings - 60 - 69%
- 5% Fixed Percent of Earnings - 70%+
- 4% Percent Varies by Earnings
- 8% Other



Benefit Amount

State & Local Government - Teachers

- 10% Fixed Percent of Earnings - 50%
- 28% Fixed Percent of Earnings - 60%
- 41% Fixed Percent of Earnings - 60 - 69%
- 2% Fixed Percent of Earnings - 70%+
- 7% Percent Varies by Earnings
- 12% Other

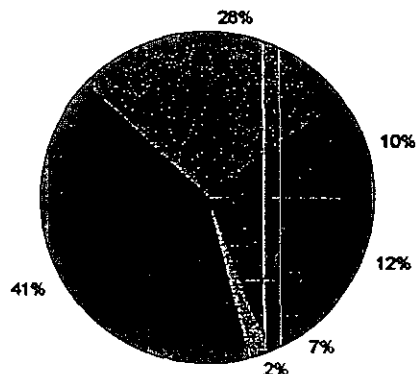


Table B12

Disability Benefits

1992-1993 Bureau of Labor Statistics Surveys

Other Provisions

Private Establishments

- 28% Benefits subject to income limit
- 75% Duration of benefits varies by age
- 86% With coverage for mental illness
- 26% With survivor benefits

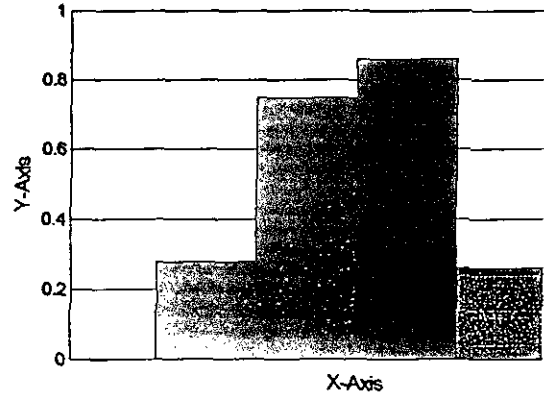


Table B13

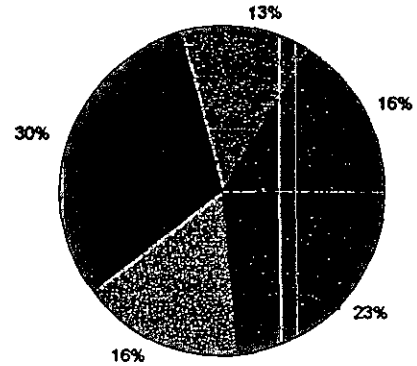
Defined Benefit Pension Plans

1992-1993 Bureau of Labor Statistics Surveys

Disability Benefit Service Requirement

Private Establishments

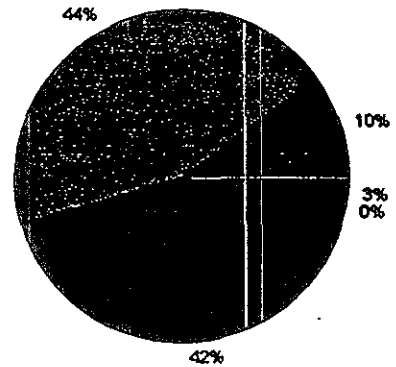
16%	Less than 5 Years
13%	5 Years
30%	10 Years
16%	15 Years
23%	Receipt of SS disability benefits



Disability Benefit Service Requirement

State & Local Government

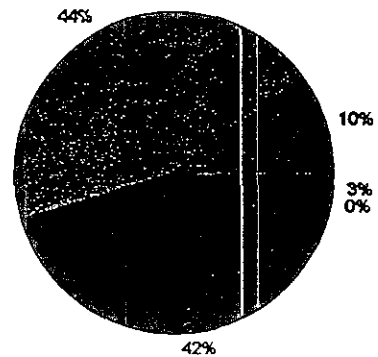
10%	Less than 5 Years
44%	5 Years
42%	10 Years
0%	15 Years
3%	Receipt of SS disability benefits



Disability Benefit Service Requirement

State & Local Government - Teachers

7%	Less than 5 Years
46%	5 Years
43%	10 Years
0%	15 Years
4%	Receipt of SS disability benefits



Social Security Law as of 1995
 Retirement Benefit (Constant Future Earnings to SSMA)
 Monthly Primary Social Security Benefit

r = 0.0% q = 0.9% Base = \$61,200

1994 Annual Salary as of 1/1/95

Year of Birth	5000	6000	7000	8000	9000	10000	11000	12000	13000	14000	15000	16000	17000	18000	19000	20000	21000
1930	520	520	520	520	520	520	533	559	586	612	639	665	691	717	744	770	796
1931	520	520	520	520	520	520	536	562	589	615	642	668	695	721	748	774	801
1932	520	520	520	520	520	521	548	575	602	629	656	683	710	737	764	791	817
1933	520	520	520	520	520	520	537	564	590	617	643	670	696	723	749	776	802
1934	520	520	520	520	520	520	537	564	591	617	643	670	696	723	749	776	802
1935	520	520	520	520	520	520	537	564	591	617	643	670	697	723	749	776	802
1936	520	520	520	520	520	520	538	564	591	617	644	670	697	723	750	776	802
1937	520	520	520	520	520	520	538	564	591	617	644	670	697	723	750	776	802
1938	520	520	520	520	520	520	538	564	591	617	644	670	697	723	750	776	803
1939	520	520	520	520	520	520	538	564	591	617	644	670	697	723	750	777	803
1940	520	520	520	520	520	520	538	565	591	617	644	671	697	724	750	777	803
1941	520	520	520	520	520	520	538	565	591	618	644	671	697	724	750	777	803
1942	520	520	520	520	520	520	538	565	591	618	644	671	697	724	750	777	803
1943	520	520	520	520	520	520	538	565	591	618	644	671	697	724	751	777	804
1944	520	520	520	520	520	520	539	565	592	618	644	671	697	724	751	777	804
1945	520	520	520	520	520	520	539	565	592	618	645	671	698	724	751	777	804
1946	520	520	520	520	520	520	539	565	592	618	645	671	698	724	751	777	804
1947	520	520	520	520	520	520	539	566	592	619	645	671	698	724	751	777	804
1948	520	520	520	520	520	520	539	566	592	619	645	672	698	725	751	778	804
1949	520	520	520	520	520	520	539	566	592	619	645	672	698	725	751	778	804
1950	520	520	520	520	520	520	539	566	592	619	645	672	698	725	752	778	805
1951	520	520	520	520	520	520	539	566	592	619	645	672	698	725	752	778	805
1952	520	520	520	520	520	520	539	566	592	619	646	672	699	725	752	778	805
1953	520	520	520	520	520	520	539	566	592	619	646	672	699	725	752	778	805
1954	520	520	520	520	520	520	539	566	592	619	646	672	699	725	752	778	805
1955	520	520	520	520	520	520	539	566	593	619	646	672	699	725	752	779	805
1956	520	520	520	520	520	520	539	566	593	619	646	672	699	726	753	779	805
1957	520	520	520	520	520	520	539	566	593	619	646	673	699	726	753	779	806
1958	520	520	520	520	520	520	539	566	593	619	646	673	699	726	753	779	806
1959	520	520	520	520	520	520	539	566	593	619	646	673	699	726	753	779	806
1960	520	520	520	520	520	520	540	566	593	620	646	673	699	726	753	779	806
1961	520	520	520	520	520	520	540	566	593	620	646	673	700	726	753	780	806
1962	520	520	520	520	520	520	540	567	593	620	647	673	700	727	753	780	807
1963	520	520	520	520	520	520	540	567	593	620	647	673	700	727	753	780	807
1964	520	520	520	520	520	520	540	567	593	620	647	673	700	727	753	780	807
1965	520	520	520	520	520	520	540	567	593	620	647	673	700	727	753	780	807
1966	520	520	520	520	520	520	540	567	593	620	647	673	700	727	753	780	807
1967	520	520	520	520	520	520	540	567	593	620	647	673	700	727	753	780	807
1968	520	520	520	520	520	520	540	567	593	620	647	673	700	727	753	780	807
1969	520	520	520	520	520	520	540	567	593	620	647	673	700	727	753	780	807
1970	520	520	520	520	520	520	540	567	593	620	647	673	700	727	753	780	807
1971	520	520	520	520	520	520	540	567	593	620	647	673	700	727	753	780	807
1972	520	520	520	520	520	520	540	567	593	620	647	673	700	727	753	780	807
1973	520	520	520	520	520	520	540	567	593	620	647	673	700	727	753	780	807

Social Security Law as of 1995
 Retirement Benefit (Constant Future Earnings to SSRA)
 Monthly Primary Social Security Benefit

r = 0.0% q = 0.9% Base = \$61,200

1994 Annual Salary as of 1/1/95

Year of Birth	22000	23000	24000	25000	26000	27000	28000	29000	30000	31000	32000	33000	34000	35000	36000	37000	38000
1930	823	849	876	902	928	955	980	1003	1024	1043	1057	1065	1073	1080	1088	1095	1102
1931	827	854	880	906	933	959	985	1009	1030	1050	1065	1073	1081	1089	1097	1104	1112
1932	845	871	898	925	952	979	1006	1031	1053	1074	1091	1100	1108	1117	1125	1133	1142
1933	828	855	881	908	934	961	987	1012	1035	1056	1072	1081	1089	1098	1106	1115	1123
1934	829	855	881	908	935	961	987	1012	1035	1057	1073	1082	1091	1100	1109	1118	1127
1935	829	855	882	908	935	961	988	1013	1037	1060	1074	1084	1093	1103	1112	1121	1130
1936	829	855	882	908	935	961	988	1014	1039	1062	1076	1086	1095	1105	1115	1124	1134
1937	829	856	882	908	935	961	988	1015	1040	1064	1077	1087	1097	1107	1117	1127	1137
1938	829	856	882	909	935	962	988	1015	1041	1065	1078	1089	1099	1109	1120	1130	1140
1939	829	856	882	909	935	962	988	1015	1041	1067	1079	1090	1101	1111	1122	1133	1143
1940	830	856	883	909	936	962	989	1015	1042	1068	1080	1092	1104	1115	1126	1138	1149
1941	830	856	883	909	936	962	989	1016	1042	1068	1081	1093	1105	1116	1128	1140	1152
1942	830	857	883	910	936	962	989	1016	1042	1068	1081	1093	1105	1117	1130	1142	1154
1943	830	857	883	910	936	963	989	1016	1042	1068	1081	1093	1106	1118	1131	1143	1155
1944	830	857	883	910	937	963	990	1016	1042	1068	1081	1093	1106	1118	1131	1143	1156
1945	830	857	883	910	937	963	990	1016	1043	1069	1081	1094	1106	1118	1131	1143	1156
1946	831	857	884	910	937	963	990	1017	1043	1069	1081	1094	1106	1119	1131	1143	1156
1947	831	857	884	911	937	964	990	1017	1043	1069	1081	1094	1106	1119	1131	1143	1156
1948	831	857	884	911	937	964	990	1017	1043	1069	1081	1094	1106	1119	1131	1144	1156
1949	831	857	884	911	937	964	991	1017	1044	1069	1082	1094	1106	1119	1131	1144	1156
1950	831	858	884	911	937	964	991	1017	1044	1069	1082	1094	1106	1119	1131	1144	1156
1951	831	858	884	911	938	964	991	1017	1044	1069	1082	1094	1107	1119	1131	1144	1156
1952	832	858	885	911	938	964	991	1017	1044	1069	1082	1094	1107	1119	1132	1144	1157
1953	832	858	885	912	938	965	991	1018	1044	1069	1082	1094	1107	1119	1132	1144	1157
1954	832	858	885	912	938	965	991	1018	1045	1070	1082	1094	1107	1119	1132	1144	1157
1955	832	858	885	912	938	965	992	1018	1045	1070	1082	1095	1107	1119	1132	1145	1157
1956	832	859	885	912	938	965	992	1018	1045	1070	1082	1095	1107	1120	1132	1145	1157
1957	832	859	886	913	939	966	992	1019	1045	1070	1082	1095	1107	1120	1132	1145	1157
1958	833	859	886	913	939	966	993	1019	1046	1070	1083	1095	1108	1120	1133	1145	1158
1959	833	859	886	913	939	966	993	1019	1046	1070	1083	1095	1108	1120	1133	1145	1158
1960	833	859	886	913	939	966	993	1019	1046	1070	1083	1095	1108	1120	1133	1145	1158
1961	833	860	886	913	940	966	993	1020	1046	1070	1083	1095	1108	1120	1133	1145	1158
1962	833	860	887	913	940	967	993	1020	1047	1070	1083	1095	1108	1120	1133	1145	1158
1963	833	860	887	913	940	967	993	1020	1047	1070	1083	1095	1108	1120	1133	1145	1158
1964	833	860	887	913	940	967	993	1020	1047	1070	1083	1095	1108	1120	1133	1145	1158
1965	833	860	887	913	940	967	993	1020	1047	1070	1083	1095	1108	1120	1133	1145	1158
1966	833	860	887	913	940	967	993	1020	1047	1070	1083	1095	1108	1120	1133	1145	1158
1967	833	860	887	913	940	967	993	1020	1047	1070	1083	1095	1108	1120	1133	1145	1158
1968	833	860	887	913	940	967	993	1020	1047	1070	1083	1095	1108	1120	1133	1145	1158
1969	833	860	887	913	940	967	993	1020	1047	1070	1083	1095	1108	1120	1133	1145	1158
1970	833	860	887	913	940	967	993	1020	1047	1070	1083	1095	1108	1120	1133	1145	1158
1971	833	860	887	913	940	967	993	1020	1047	1070	1083	1095	1108	1120	1133	1145	1158
1972	833	860	887	913	940	967	993	1020	1047	1070	1083	1095	1108	1120	1133	1145	1158
1973	833	860	887	913	940	967	993	1020	1047	1070	1083	1095	1108	1120	1133	1145	1158

Social Security Law as of 1995
 Retirement Benefit (Constant Future Earnings to SSRA)
 Monthly Primary Social Security Benefit

r = 0.0% q = 0.9% Base = \$61,200

1994 Annual Salary as of 1/1/95

Year of Birth	39000	40000	41000	42000	43000	44000	45000	46000	47000	48000	49000	50000	51000	52000	53000	54000	55000
1930	1109	1115	1121	1127	1132	1138	1144	1149	1155	1160	1166	1170	1175	1180	1184	1189	1192
1931	1119	1126	1132	1138	1144	1150	1156	1162	1168	1174	1179	1185	1190	1195	1199	1204	1208
1932	1149	1156	1162	1169	1175	1182	1188	1195	1201	1207	1213	1219	1225	1230	1235	1240	1245
1933	1131	1138	1145	1152	1158	1165	1172	1179	1185	1192	1198	1204	1210	1215	1221	1226	1231
1934	1135	1142	1149	1156	1163	1170	1178	1185	1191	1198	1205	1211	1217	1223	1229	1235	1240
1935	1139	1146	1154	1161	1169	1176	1184	1191	1198	1205	1212	1219	1226	1232	1238	1244	1250
1936	1143	1151	1158	1166	1174	1182	1190	1198	1205	1213	1220	1227	1234	1241	1247	1253	1259
1937	1146	1155	1163	1171	1179	1187	1196	1204	1212	1220	1227	1235	1242	1249	1256	1262	1269
1938	1150	1159	1167	1176	1184	1193	1201	1210	1218	1226	1234	1242	1250	1257	1264	1271	1278
1939	1153	1163	1171	1180	1189	1198	1207	1216	1224	1233	1241	1250	1257	1265	1273	1280	1287
1940	1160	1170	1179	1189	1198	1208	1218	1227	1237	1246	1255	1264	1272	1281	1289	1297	1305
1941	1163	1173	1183	1193	1203	1213	1223	1233	1242	1252	1261	1271	1280	1289	1297	1306	1314
1942	1165	1176	1186	1196	1206	1217	1227	1238	1248	1258	1267	1277	1286	1296	1304	1313	1322
1943	1167	1178	1189	1199	1210	1221	1232	1242	1253	1263	1273	1283	1293	1302	1312	1321	1330
1944	1168	1179	1190	1201	1212	1223	1234	1245	1256	1267	1277	1287	1297	1307	1317	1327	1336
1945	1168	1180	1191	1202	1214	1225	1236	1248	1259	1270	1281	1292	1302	1312	1322	1332	1342
1946	1168	1180	1192	1204	1215	1227	1239	1251	1262	1274	1285	1296	1307	1317	1328	1338	1348
1947	1168	1181	1193	1205	1217	1229	1241	1253	1265	1277	1288	1300	1311	1322	1333	1343	1353
1948	1169	1181	1193	1206	1218	1231	1243	1256	1268	1280	1292	1304	1315	1327	1338	1349	1359
1949	1169	1181	1194	1206	1218	1231	1243	1256	1268	1281	1293	1305	1317	1329	1340	1352	1362
1950	1169	1181	1194	1206	1219	1231	1244	1256	1268	1281	1293	1306	1318	1330	1342	1354	1365
1951	1169	1181	1194	1206	1219	1231	1244	1256	1269	1281	1293	1306	1319	1331	1343	1355	1367
1952	1169	1182	1194	1207	1219	1232	1244	1256	1269	1281	1294	1306	1319	1331	1344	1356	1368
1953	1169	1182	1194	1207	1219	1232	1244	1256	1269	1281	1294	1306	1319	1331	1344	1356	1368
1954	1169	1182	1194	1207	1219	1232	1244	1257	1269	1281	1294	1307	1319	1331	1344	1356	1369
1955	1169	1182	1194	1207	1219	1232	1244	1257	1269	1282	1294	1307	1319	1332	1344	1356	1369
1956	1170	1182	1194	1207	1220	1232	1244	1257	1269	1282	1294	1307	1319	1332	1344	1357	1370
1957	1170	1182	1195	1207	1220	1232	1245	1257	1270	1282	1295	1307	1320	1332	1345	1357	1370
1958	1170	1182	1195	1207	1220	1232	1245	1257	1270	1282	1295	1307	1320	1332	1345	1357	1370
1959	1170	1182	1195	1208	1220	1232	1245	1257	1270	1282	1295	1307	1320	1332	1345	1357	1370
1960	1170	1183	1195	1208	1220	1233	1245	1258	1270	1283	1295	1308	1320	1333	1345	1358	1370
1961	1170	1183	1195	1208	1220	1233	1245	1258	1270	1283	1295	1308	1320	1333	1345	1358	1370
1962	1170	1183	1195	1208	1220	1233	1245	1258	1270	1283	1295	1308	1320	1333	1345	1358	1370
1963	1170	1183	1195	1208	1220	1233	1245	1258	1270	1283	1295	1308	1320	1333	1345	1358	1370
1964	1170	1183	1195	1208	1220	1233	1245	1258	1270	1283	1295	1308	1320	1333	1345	1358	1370
1965	1170	1183	1195	1208	1220	1233	1245	1258	1270	1283	1295	1308	1320	1333	1345	1358	1370
1966	1170	1183	1195	1208	1220	1233	1245	1258	1270	1283	1295	1308	1320	1333	1345	1358	1370
1967	1170	1183	1195	1208	1220	1233	1245	1258	1270	1283	1295	1308	1320	1333	1345	1358	1370
1968	1170	1183	1195	1208	1220	1233	1245	1258	1270	1283	1295	1308	1320	1333	1345	1358	1370
1969	1170	1183	1195	1208	1220	1233	1245	1258	1270	1283	1295	1308	1320	1333	1345	1358	1370
1970	1170	1183	1195	1208	1220	1233	1245	1258	1270	1283	1295	1308	1320	1333	1345	1358	1370
1971	1170	1183	1195	1208	1220	1233	1245	1258	1270	1283	1295	1308	1320	1333	1345	1358	1370
1972	1170	1183	1195	1208	1220	1233	1245	1258	1270	1283	1295	1308	1320	1333	1345	1358	1370
1973	1170	1183	1195	1208	1220	1233	1245	1258	1270	1283	1295	1308	1320	1333	1345	1358	1370

Exhibit 10
State of Louisiana
State Employees Group Benefits Program
Projected Medical Benefits
Based Upon M&R's 10/31/94 Valuation and Projection
Low Estimate

Incurral Month	Estimated Incurred Claims Per Participant				Trends In Estimated Incurred Claims Per Participant			
	1 Month	3 Month	6 Month	12 Month	1 Month	3 Month	6 Month	12 Month
Jul-94	268.77	269.04	248.57	253.95	1.046	1.068	1.010	0.971
Aug-94	291.29	281.99	263.61	257.13	1.149	1.107	1.047	0.984
Sep-94	285.10	281.72	270.59	260.32	1.155	1.116	1.085	1.005
Oct-94	283.50	286.63	277.87	263.37	1.147	1.150	1.109	1.026
Nov-94	321.45	296.70	289.36	266.77	1.143	1.148	1.128	1.035
Dec-94	334.29	313.09	297.44	269.66	1.113	1.133	1.125	1.054
Jan-95	256.65	304.10	295.38	272.11	1.131	1.128	1.139	1.077
Feb-95	227.35	272.71	284.68	274.20	1.131	1.123	1.136	1.092
Mar-95	264.97	249.66	281.31	275.98	1.089	1.116	1.125	1.105
Apr-95	258.40	250.25	277.11	277.49	1.078	1.098	1.114	1.111
May-95	268.20	263.86	268.28	278.77	1.063	1.077	1.100	1.114
Jun-95	298.75	275.14	262.43	279.86	1.045	1.061	1.086	1.106
Jul-95	279.90	282.29	266.31	280.78	1.041	1.049	1.071	1.106
Aug-95	300.53	293.06	278.49	281.57	1.032	1.039	1.056	1.095
Sep-95	293.00	291.15	283.16	282.24	1.028	1.033	1.046	1.084
Oct-95	290.27	294.60	288.46	282.81	1.024	1.028	1.038	1.074
Nov-95	326.46	303.26	298.17	283.29	1.016	1.022	1.030	1.062
Dec-95	338.40	318.40	304.81	283.71	1.012	1.017	1.025	1.052
Jan-96	261.17	308.65	301.64	284.05	1.018	1.015	1.021	1.044
Feb-96	231.91	277.11	290.16	284.35	1.020	1.016	1.019	1.037
Mar-96	268.28	253.79	286.02	284.60	1.013	1.017	1.017	1.031
Apr-96	261.48	253.91	281.22	284.82	1.012	1.015	1.015	1.026
May-96	270.64	266.80	271.94	285.00	1.009	1.011	1.014	1.022
Jun-96	300.41	277.53	265.69	285.16	1.006	1.009	1.012	1.019
Totals								
FY95				279.86				1.106
FY96				285.16				1.019
CY94				269.66				1.054
CY95				283.71				1.052

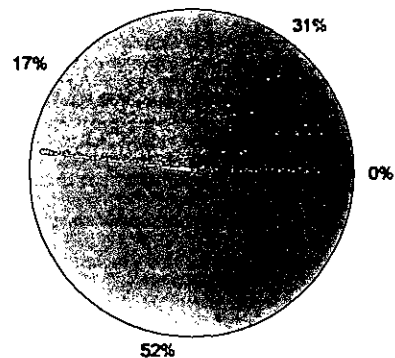
Table B15
Defined Benefit Plans

1992-1993 Bureau of Labor Statistics Surveys

Integration with Social Security

Private Establishments

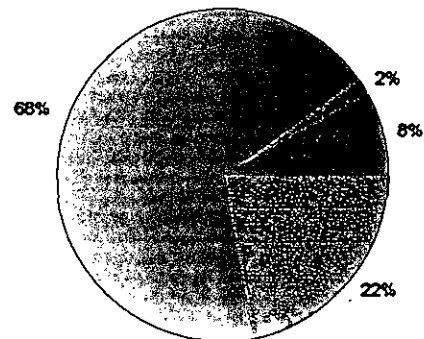
- 31% Step-rate Excess Plan
- 17% Offset by Social Security
- 52% No Integration
- 0% Not covered under Social Security



Integration with Social Security

State & Local Government

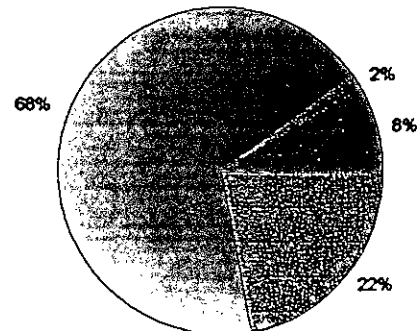
- 8% Step-rate Excess Plan
- 2% Offset by Social Security
- 68% No Integration
- 22% Not covered under Social Security



Integration with Social Security

State & Local Government - Teachers

- 5% Step-rate Excess Plan
- 1% Offset by Social Security
- 69% No Integration
- 24% Not covered under Social Security



Section C - Standard In-Service Death Benefit Plans

Using existing databases from the Louisiana State Employees Retirement System (LASERS) and Teachers' Retirement System, compute the expected value of lives in the two systems with respect to the creation of a standard in-service death benefit plan. Provide information on a range for insurance industry risk premiums, administrative costs, and profit margins relative to this benefit plan. The information will be based on M&R's experience and will be expressed as a percentage of expected value.

Standard In-Service PreRetirement Death Benefit Plan

We measured the expected benefit and the present value of the expected benefit for two distinct standard in-service death benefit plans: a plan providing for a benefit based on a single fixed amount for all participants and a plan providing for a benefit of a multiple of a participant's earnings. The former plan is more commonly seen in plans of government employers and the latter plan is seen more commonly in plans of private employers. However, many private employers sponsor a plan with the fixed amount feature and many governmental employers sponsor a plan with the multiple of earnings. The multiple of earnings feature automatically takes into account cost of living increases. The fixed dollar amount can be used as a cost containment measure. The plans we valued assume that there is no service requirement to join the plan. The surveys showed that the average eligibility requirement is three months. However some paper work may be reduced if the employee is eligible to become a participant in the in-service death benefit plan at the same time he becomes a member of the retirement system. On the other hand, some cost savings may be enjoyed if there is a service requirement.

Please refer to the Introduction for the actuarial methodology and definitions and Appendix 1 for the actuarial assumptions.

Exhibit C1 shows the expected values of a plan providing for a lump sum preretirement death benefit of two times pay if a person dies while an employee covered either by the LASERS or the Teachers' Retirement System. This benefit was chosen as the survey data showed that the average multiple of earnings benefit for participants covered by government sponsored multiple of earnings in-service death benefit plan was 1.8. As you can see, the value of this plan is relatively small, with one year term costs ranging from 0.46% to 0.60% of payroll in total. Over the long term, the plan is a small component of employee compensation, ranging from 0.64% to 0.83% of compensation. The costs for the LASERS and the Teachers' Retirement System separately are similar.

Exhibit C2 shows the corresponding values of a plan providing for a lump sum preretirement death benefit of \$40,000 if a person dies while an employee covered either by the LASERS or the Teachers' Retirement System. The one year term costs range from 0.31% to 0.42% of payroll in total. Over the long term, the costs range from 0.30% to 0.41%. The costs for the LASERS and the Teachers' Retirement System separately are similar. Even though this benefit is less expensive than the "2 times pay" benefit, it is at the high end of the fixed amount of coverage in the surveys.

Distributions C3-C10 are age-service distributions on a cost per thousand basis for the 1 year term costs. These distributions may be viewed as a tool for determining the value of the benefit to the employee or as a tool for determining the cost of an employee's benefit.

Distribution C3 is an age-service distribution of the 1 year term cost for the "2 X Pay" benefit for the LASERS on the basis of the current actuarial assumptions. The one year term cost is for \$3.2 billion of life insurance in force. The 1 year term cost is 18.2 cents per thousand in total, 27.4 cents per thousand for males, and 11.4 cents per thousand for females.

Distribution C4 is an age-service distribution of the 1 year term cost for the "2 X Pay" benefit for the LASERS on the basis of the alternative actuarial assumptions. The one year term cost is for \$3.2 billion of life insurance in force. The 1 year term cost is 23.10 cents per thousand in total, 30.88 cents per thousand for males, and 17.39 cents per thousand for females.

Distribution C5 is an age-service distribution of the 1 year term cost for the "2 X Pay" benefit for the Teachers' Retirement System on the basis of the current actuarial assumptions. The one year term cost is for \$4.55 billion of life insurance in force. The 1 year term cost is 18.63 cents per thousand in total, 54.75 cents per thousand for males, and 11.23 cents per thousand for females.

Distribution C6 is an age-service distribution of the 1 year term cost for the "2 X Pay" benefit for the Teachers' Retirement System on the basis of the alternative actuarial assumptions. The one year term cost is for \$4.55 billion of insurance in force. The 1 year term cost is 24.50 cents per thousand in total, 60.24 cents per thousand for males, and 17.18 cents per thousand for females.

Distribution C7 is an age-service distribution of the 1 year term cost for the "40,000" benefit for the LASERS on the basis of the current actuarial assumptions. The one year term cost is for \$2.7 billion of life insurance in force. The 1 year term cost is 16.2 cents per thousand in total, 24.1 cents per thousand for males, and 11.1 cents per thousand for females.

Distribution C8 is an age-service distribution of the 1 year term cost for the "40,000" benefit for the LASERS on the basis of the alternative actuarial assumptions. The one year term cost is for \$2.7 billion of life insurance in force. The 1 year term cost is 21.11 cents per thousand in total, 27.62 cents per thousand for males, and 16.87 cents per thousand for females.

Distribution C9 is an age-service distribution of the 1 year term cost for the "40,000" benefit for the Teachers' Retirement System on the basis of the current actuarial assumptions. The one year term cost is for \$3.4 billion of life insurance in force. The 1 year term cost is 15.92 cents per thousand in total, 30.24 cents per thousand for males, and 12.41 cents per thousand for females.

Distribution C10 is an age-service distribution of the 1 year term cost for the "40,000" benefit for the Teachers' Retirement System on the basis of the alternative actuarial assumptions. The one year term cost is for \$3.4 billion of insurance in force. The 1 year term cost is 21.82 cents per thousand in total, 33.55 cents per thousand for males, and 18.91 cents per thousand for females.

Exhibit C1

State of Louisiana Standard In-Service Death Benefit Plan Two Times Pay Death Benefit - No Participation Requirement

	LASERS		Teachers		Total	
Number of Participants	66,843		84,612		151,555	
Compensation	1,548,407,194		2,170,167,043		3,718,574,237	
Alternative Cost Measures Current Assumptions						
Present Value of Future Benefits	77,061,804		136,448,585		213,510,389	
Present Value of Future Salary	12,467,371,446		20,668,476,440		33,135,847,886	
Accrued Liability	43,634,751		79,941,831		123,576,582	
1 Year Term Cost	6,989,291	0.45%	10,169,551	0.47%	17,158,842	0.46%
Aggregate Cost	9,570,827	0.62%	14,328,950	0.66%	23,960,583	0.64%
Alternative Cost Measures Alternative Assumptions						
Present Value of Future Benefits	95,937,845		175,636,950		271,574,795	
Present Value of Future Salary	12,314,640,036		20,330,863,063		32,645,503,099	
Accrued Liability	54,392,715		102,970,851		157,363,566	
1 Year Term Cost	8,866,410	0.57%	13,375,722	0.62%	22,242,132	0.60%
Aggregate Cost	12,062,847	0.78%	18,747,926	0.86%	30,834,461	0.83%

Exhibit C2

**State of Louisiana Standard In-Service Death Benefit Plan
\$40,000 Death Benefit - No Participation Requirement**

	Lasers		Teachers		Total	
<i>Number of Participants</i>	66,943		84,612		151,555	
<i>Compensation</i>	1,548,407,194		2,170,167,043		3,718,574,237	
 Alternative Cost Measures Current Assumptions						
<i>Present Value of Future Benefits</i>	42,028,434		59,027,844		101,056,278	
<i>Present Value of Future Salary</i>	12,467,371,446		20,668,476,440		33,135,847,886	
 <i>1 Year Term Cost</i>	 5,220,454	 0.34%	 6,463,462	 0.30%	 11,683,916	 0.31%
<i>Aggregate Cost</i>	5,219,796	0.34%	6,197,858	0.29%	11,340,747	0.30%
 Alternative Cost Measures Alternative Assumptions						
<i>Present Value of Future Benefits</i>	53,272,292		79,115,476		132,387,768	
<i>Present Value of Future Salary</i>	12,314,640,036		20,330,863,063		32,645,503,099	
 <i>1 Year Term Cost</i>	 6,782,337	 0.44%	 8,857,826	 0.41%	 15,640,163	 0.42%
<i>Aggregate Cost</i>	6,698,304	0.43%	8,444,983	0.39%	15,079,986	0.41%

DISTRIBUTION C3

Louisiana State Employees' Retirement System
Distributions as of 07-01-1993

TABLE A: Preretirement Death Benefits One Year Term Cost By Age Groups
Two Times Pay Death Benefit - All Participants - Actuarial Valuation Assumptions

Age Group	M A L E			F E M A L E			A L L		
	Total 1YT	Benefits	1YT/1000	Total 1YT	Benefits	1YT/1000	Total 1YT	Benefits	1YT/1000
00-19	330	860,465	3.1959	97	476,488	1.6964	427	1,336,953	2.6615
20-24	17,833	39,736,325	3.7397	9,389	36,661,211	2.1342	27,222	76,399,536	2.9693
25-29	56,815	102,356,279	4.6256	48,821	148,715,102	2.7557	105,636	251,071,381	3.5062
30-34	114,870	153,814,832	6.2234	114,100	253,323,964	3.7534	228,970	407,138,796	4.6866
35-39	212,544	201,863,089	8.7743	220,657	354,029,134	5.1939	433,201	555,892,223	6.4941
40-44	404,266	241,110,473	13.9724	333,921	367,896,401	7.5637	738,187	609,006,874	10.1010
45-49	694,915	235,682,641	24.5710	415,278	288,838,181	11.9813	1,110,193	524,520,822	17.6382
50-54	845,508	167,884,907	41.9686	438,369	194,608,237	18.7723	1,283,897	362,493,144	29.5154
55-59	906,998	119,520,170	63.2388	447,306	123,482,884	30.1868	1,354,304	243,003,054	46.4433
60-64	755,841	65,700,277	95.8698	341,322	56,888,612	49.9986	1,097,163	122,588,889	74.5828
65-69	439,158	21,792,645	167.9305	159,332	16,104,355	82.4477	598,490	37,897,000	131.6045
70-74	11,121	3,642,392	25.4434	0	3,384,661	.0000	11,121	7,027,053	13.1883
75-79	0	244,980	.0000	0	48,453	.0000	0	293,433	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	4,460,199	1,354,211,475	27.4465	2,528,612	1,844,457,683	11.4244	6,988,811	3,198,669,158	18.2076

TABLE B: Preretirement Death Benefits One Year Term Cost By Service Groups
Two Times Pay Death Benefit - All Participants - Actuarial Valuation Assumptions

Service Group	M A L E			F E M A L E			A L L		
	Total 1YT	Benefits	1YT/1000	Total 1YT	Benefits	1YT/1000	Total 1YT	Benefits	1YT/1000
0	252,929	126,242,194	16.6960	170,936	188,441,084	7.5592	423,865	314,683,278	11.2246
1	125,167	66,398,535	15.7091	75,388	81,952,139	7.6659	200,555	148,350,674	11.2658
2	199,186	98,600,347	16.8345	133,275	156,260,032	7.1075	332,461	254,860,379	10.8707
3	192,739	93,067,055	17.2581	132,147	141,882,504	7.7615	324,886	234,949,559	11.5233
4	146,551	63,037,848	19.3734	71,483	73,914,053	8.0592	218,034	136,951,901	13.2671
00-04	916,572	447,345,979	17.0743	583,229	642,449,812	7.5652	1,499,801	1,089,795,791	11.4685
05-09	651,509	203,341,428	26.7001	338,601	274,652,889	10.2736	990,110	477,994,317	17.2615
10-14	999,114	290,640,948	28.6469	607,688	423,318,316	11.9628	1,606,802	713,959,264	18.7546
15-19	711,424	195,827,536	30.2743	478,180	277,011,453	14.3851	1,189,604	472,838,989	20.9656
20-24	529,582	114,592,675	38.5119	308,469	145,894,064	17.6195	838,051	260,486,739	26.8104
25-29	440,661	77,892,428	47.1442	175,096	70,170,438	20.7941	615,757	148,062,866	34.6563
30-34	164,585	20,841,351	65.8087	29,427	9,509,905	25.7863	194,012	30,351,256	53.2685
35-39	46,039	3,680,954	104.2280	6,095	1,159,648	43.7992	52,134	4,840,602	89.7512
40+	713	48,176	123.3325	1,827	291,158	52.2912	2,540	339,334	62.3771
TOTAL	4,460,199	1,354,211,475	27.4465	2,528,612	1,844,457,683	11.4244	6,988,811	3,198,669,158	18.2076

DISTRIBUTION C4

Louisiana State Employees' Retirement System
Distributions as of 07-01-1993

TABLE A: Preretirement Death Benefits One Year Term Cost By Age Groups
Two Times Pay Death Benefit - All Participants - Alternative Actuarial Assumptions

Age Group	M A L E		F E M A L E		A L L	
	Total 1YT	Benefits 1YT/1000	Total 1YT	Benefits 1YT/1000	Total 1YT	Benefits 1YT/1000
00-19	1,081	860,465	221	476,488	1,302	1,336,953
20-24	53,138	39,738,325	18,678	36,661,211	71,816	76,399,536
25-29	122,189	102,356,279	75,930	148,715,102	198,119	251,071,381
30-34	166,596	153,814,832	152,496	253,323,964	319,092	407,138,796
35-39	252,768	201,863,089	324,709	354,209,134	577,477	555,892,223
40-44	444,202	241,110,473	572,056	367,896,401	1,016,258	609,006,874
45-49	726,105	235,682,641	690,468	288,838,181	1,416,573	524,520,822
50-54	874,317	167,884,907	690,799	194,608,237	1,565,116	362,493,144
55-59	1,007,928	119,520,170	667,333	123,482,884	1,675,261	243,003,054
60-64	882,239	65,700,277	463,089	56,888,612	1,345,328	122,588,889
65-69	476,450	21,792,645	192,261	16,104,355	668,711	37,897,000
70-74	11,456	3,642,392	0	3,384,661	11,456	7,027,053
75-79	0	244,980	0	48,453	0	293,433
80-84	0	0	0	0	0	0
85+	0	0	0	0	0	0
TOTAL	5,018,469	1,354,211,475	3,848,040	1,844,457,683	8,866,509	3,198,669,158

TABLE B: Preretirement Death Benefits One Year Term Cost By Service Groups
Two Times Pay Death Benefit - All Participants - Alternative Actuarial Assumptions

Service Group	M A L E		F E M A L E		A L L	
	Total 1YT	Benefits 1YT/1000	Total 1YT	Benefits 1YT/1000	Total 1YT	Benefits 1YT/1000
0	312,269	126,242,194	263,615	188,441,084	575,884	314,683,278
1	155,504	66,398,535	117,447	81,952,139	272,951	148,350,674
2	240,088	98,600,347	208,039	156,260,032	448,127	254,860,379
3	230,765	93,067,055	202,767	141,882,504	433,532	234,949,559
4	170,053	63,037,848	110,282	75,914,053	280,335	136,951,901
00-04	1,108,679	447,345,979	902,150	642,449,812	2,010,829	1,089,795,791
05-09	738,103	203,341,428	511,540	274,652,889	1,249,643	477,994,317
10-14	1,111,811	290,640,948	916,176	423,318,316	2,027,987	713,959,264
15-19	779,661	195,827,536	726,647	277,011,453	1,506,308	472,838,989
20-24	575,009	114,592,675	471,662	145,894,064	1,046,671	260,486,739
25-29	472,227	77,892,428	265,663	70,170,438	737,890	148,062,866
30-34	180,782	20,841,351	43,516	9,509,905	224,298	30,351,256
35-39	51,377	3,680,954	8,228	1,159,648	59,605	4,840,602
40+	820	48,176	2,458	1,291,158	3,278	339,334
TOTAL	5,018,469	1,354,211,475	3,848,040	1,844,457,683	8,866,509	3,198,669,158

DISTRIBUTION C5

Teachers Retirement System of Louisiana
Distributions as of 07-01-1993

TABLE A: Preretirement Death Benefits One Year Term Cost By Age Groups
Two Times Pay Death Benefit - All Participants - Actuarial Valuation Assumptions

Age Group	M A L E			F E M A L E			A L L		
	Total 1YT	Benefits 1YT/1000	14	Total 1YT	Benefits 1YT/1000	14	Total 1YT	Benefits 1YT/1000	14
00-19	0	0	.0000	0	0	.0000	0	0	.0000
20-24	3,430	8,782,081	3.2547	13,355	251,610	.4637	16,785	251,610	.4637
25-29	27,757	50,480,948	4.5821	72,258	65,365,851	1.7026	100,015	74,147,932	1.8864
30-34	49,244	61,560,297	6.6661	132,442	229,161,807	2.6276	181,686	279,642,755	2.9804
35-39	124,815	89,998,592	11.5572	304,382	415,397,152	2.6569	429,197	476,957,449	3.1744
40-44	333,083	139,274,845	19.9296	649,013	585,731,928	4.3305	982,096	675,730,320	5.2930
45-49	774,018	155,625,755	41.4465	919,845	779,531,622	6.9381	1,693,863	918,806,467	8.9074
50-54	1,230,289	132,540,757	77.3529	1,055,437	520,110,584	16.9105	2,285,726	847,949,436	16.6467
55-59	1,123,727	79,065,788	118.4380	930,665	301,456,740	25.7269	2,054,392	652,651,341	29.1851
60-64	921,483	39,939,014	192.2688	701,526	142,645,749	40.9830	1,623,009	380,522,528	44.9906
65-69	494,853	12,447,775	331.2861	308,217	36,749,186	69.8920	803,070	182,584,763	74.0756
70-74	0	3,783,938	.0000	0	6,833,129	.0000	0	49,196,961	136.0297
75-79	0	189,157	.0000	0	300,947	.0000	0	10,617,067	.0000
80-84	0	0	.0000	0	0	.0000	0	490,104	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	5,082,699	773,688,747	54.7453	5,087,154	3,775,859,986	11.2274	10,169,853	4,549,548,733	18.6280

TABLE B: Preretirement Death Benefits One Year Term Cost By Service Groups
Two Times Pay Death Benefit - All Participants - Actuarial Valuation Assumptions

Service Group	M A L E			F E M A L E			A L L		
	Total 1YT	Benefits 1YT/1000	14	Total 1YT	Benefits 1YT/1000	14	Total 1YT	Benefits 1YT/1000	14
0	23,365	24,370,908	7.9894	40,872	143,231,144	2.3780	64,237	167,602,052	3.1939
1	79,052	45,044,298	14.6249	109,013	223,264,675	4.0889	188,065	268,308,973	5.8411
2	97,541	47,285,621	17.1900	157,045	269,688,320	4.8527	254,586	316,973,941	6.6931
3	99,615	43,770,429	18.9654	118,156	182,755,092	5.3877	217,771	226,525,521	8.0113
4	99,634	33,506,564	24.7797	157,457	247,027,262	5.3117	257,091	280,533,826	7.6370
00-04	399,207	193,977,820	17.1500	582,543	1,065,966,493	4.5841	981,750	1,259,944,313	6.4953
05-09	518,552	120,842,496	35.7595	641,463	766,021,066	6.9783	1,160,015	886,863,562	10.9000
10-14	665,181	118,153,753	46.9149	822,330	692,836,437	9.8909	1,487,511	810,990,190	15.2849
15-19	801,677	121,718,695	54.8858	973,997	606,299,626	13.3872	1,775,674	728,018,521	20.3254
20-24	983,157	106,814,488	76.7028	954,844	395,816,134	20.1029	1,936,001	502,630,622	32.1310
25-29	1,123,063	82,725,735	113.1312	743,191	190,810,959	32.4576	1,866,254	273,536,694	56.8557
30-34	448,912	24,238,177	154.3405	234,003	46,056,300	45.9388	702,130	70,294,477	83.3298
35-39	127,222	4,574,683	231.7501	94,908	9,930,770	79.6414	222,130	14,505,453	127.6129
40+	15,728	642,700	203.9313	19,875	2,122,201	78.0440	35,603	2,764,901	107.3064
TOTAL	5,082,699	773,688,747	54.7453	5,087,154	3,775,859,986	11.2274	10,169,853	4,549,548,733	18.6280

DISTRIBUTION C6

Teachers Retirement System of Louisiana
Distributions as of 07-01-1993

TABLE A: Preretirement Death Benefits One Year Term Cost By Age Groups
Two Times Pay Death Benefit - All Participants - Alternative Actuarial Assumptions

Age Group	M A L E			F E M A L E			A L L		
	Total 1YT	Benefits	1YT/1000	Total 1YT	Benefits	1YT/1000	Total 1YT	Benefits	1YT/1000
00-19	0	0	.0000	34	251,610	1.1261	34	251,610	1.1261
20-24	9,773	8,782,081	9.2736	25,909	65,365,851	3.3031	35,682	74,147,932	4.0102
25-29	59,131	50,480,948	9.7613	114,069	229,161,807	4.1481	173,200	279,642,755	5.1613
30-34	72,309	61,560,297	9.7884	176,882	415,397,152	3.5485	249,191	476,957,449	4.3538
35-39	147,943	89,998,392	13.6987	449,757	585,731,928	6.3988	597,700	675,730,320	7.3710
40-44	365,991	139,274,845	21.8926	1,111,821	779,531,622	11.8856	1,477,812	918,806,467	13.4034
45-49	807,660	155,625,755	43.2480	1,528,305	692,523,681	18.3958	2,335,965	847,949,436	22.9570
50-54	1,271,375	132,540,757	79.9361	1,663,905	520,110,584	26.6595	2,935,280	652,631,341	37.4789
55-59	1,245,447	79,065,788	131.2670	1,588,880	301,456,740	38.3936	2,634,327	380,522,528	57.6910
60-64	1,075,554	39,939,014	224.4159	952,015	142,645,749	55.6165	2,027,569	182,584,763	92.5401
65-69	537,662	12,447,775	359.9452	372,143	36,833,129	84.3880	909,805	49,196,961	154.1093
70-74	0	3,783,938	.0000	0	6,833,129	.0000	0	10,617,067	.0000
75-79	0	189,157	.0000	0	300,947	.0000	0	490,104	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	5,592,845	775,688,747	60.2400	7,783,720	3,775,859,986	17.1787	13,376,565	4,549,548,753	24.5016

TABLE B: Preretirement Death Benefits One Year Term Cost By Service Groups
Two Times Pay Death Benefit - All Participants - Alternative Actuarial Assumptions

Service Group	M A L E			F E M A L E			A L L		
	Total 1YT	Benefits	1YT/1000	Total 1YT	Benefits	1YT/1000	Total 1YT	Benefits	1YT/1000
0	29,556	24,370,908	10.1063	64,808	143,231,144	3.7706	94,364	167,602,052	4.6919
1	98,057	45,044,298	18.1408	175,246	223,264,675	6.5410	273,303	288,308,973	8.8884
2	116,504	47,285,621	20.5496	246,065	269,688,320	7.6034	362,649	316,973,941	9.5347
3	118,819	43,770,429	22.6216	186,607	182,755,092	8.5090	305,426	226,525,521	11.2359
4	113,086	33,506,564	28.1253	246,094	247,027,262	8.3019	359,180	280,533,826	10.6695
00-04	476,122	193,977,820	20.4543	918,820	1,065,966,493	7.1830	1,394,942	1,259,944,313	9.2262
05-09	577,669	120,842,496	39.8362	991,069	766,021,066	10.7816	1,568,738	886,863,562	14.7405
10-14	728,960	118,153,753	51.4132	1,260,084	692,836,437	15.1561	1,989,044	810,990,190	20.4384
15-19	872,478	121,718,895	59.7331	1,510,473	606,299,626	20.7608	2,382,951	728,018,521	27.2767
20-24	1,059,892	106,814,488	82.6895	1,477,739	395,816,134	31.0064	2,532,631	502,630,622	41.9896
25-29	1,216,453	82,725,735	122.5308	1,109,972	190,810,959	48.4761	2,326,425	273,536,694	70.8749
30-34	498,840	24,238,177	171.5063	368,339	46,056,300	66.6465	867,179	70,294,477	102.8031
35-39	144,823	4,574,683	263.8125	127,444	9,930,770	106.9437	272,267	14,505,453	156.4165
40+	17,608	642,700	228.3077	24,780	2,122,201	97.3066	42,388	2,764,901	127.7562
TOTAL	5,592,845	775,688,747	60.2400	7,783,720	3,775,859,986	17.1787	13,376,565	4,549,548,753	24.5016

DISTRIBUTION C7

Louisiana State Employees' Retirement System
Distributions as of 07-01-1993

TABLE A: Preretirement Death Benefits One Year Term Cost By Age Groups
\$40,000 Death Benefit - All Participants - Actuarial Valuation Assumptions

Age Group	M A L E			F E M A L E			A L L		
	Total 1YT	Benefits	1YT/1000	Total 1YT	Benefits	1YT/1000	Total 1YT	Benefits	1YT/1000
00-19	512	1,280,000	3.3333	144	720,000	1.6667	656	2,000,000	2.7333
20-24	22,683	50,880,000	3.7151	11,637	45,440,000	2.1341	34,320	96,320,000	2.9693
25-29	61,612	111,360,000	4.6106	50,688	153,240,000	2.7565	112,300	264,600,000	3.5368
30-34	108,118	145,320,000	6.2000	111,191	244,960,000	3.7826	219,309	390,280,000	4.6827
35-39	174,890	166,960,000	8.7291	188,343	307,320,000	5.1071	363,233	474,280,000	6.3822
40-44	290,697	174,120,000	13.9127	270,395	297,800,000	7.5665	561,092	471,920,000	9.9080
45-49	461,984	156,800,000	24.5527	338,640	235,760,000	11.9698	800,624	392,560,000	16.9958
50-54	564,021	112,040,000	41.9509	365,761	161,640,000	18.8568	929,782	273,680,000	28.3111
55-59	602,579	79,280,000	63.3387	398,217	106,720,000	30.3143	990,796	186,000,000	44.3905
60-64	503,968	43,840,000	95.7968	294,013	49,080,000	49.9207	797,981	92,920,000	71.5652
65-69	266,452	13,280,000	167.2013	140,901	14,280,000	82.2251	407,353	27,560,000	123.1716
70-74	3,649	2,280,000	13.3370	0	3,040,000	.0000	3,649	5,320,000	5.7159
75-79	0	200,000	.0000	0	80,000	.0000	0	280,000	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	3,061,165	1,057,640,000	24.1195	2,159,930	1,620,080,000	11.1102	5,221,095	2,677,720,000	16.2486

TABLE B: Preretirement Death Benefits One Year Term Cost By Service Groups
\$40,000 Death Benefit - All Participants - Actuarial Valuation Assumptions

Service Group	M A L E			F E M A L E			A L L		
	Total 1YT	Benefits	1YT/1000	Total 1YT	Benefits	1YT/1000	Total 1YT	Benefits	1YT/1000
0	261,520	143,280,000	15.2103	192,182	210,480,000	7.6089	453,702	353,760,000	10.6876
1	101,942	65,480,000	12.9737	77,818	86,960,000	7.4573	179,760	152,440,000	9.8268
2	164,142	91,400,000	14.9655	128,623	153,040,000	7.0038	292,765	244,440,000	9.9808
3	161,846	84,800,000	15.9047	125,605	136,520,000	7.6671	287,451	221,320,000	10.8234
4	117,512	55,080,000	17.7790	66,945	68,960,000	8.0898	184,457	124,040,000	12.3923
00-04	806,962	440,040,000	15.2820	591,173	655,960,000	7.5103	1,398,135	1,096,000,000	10.6306
05-09	497,897	168,280,000	24.6562	304,198	247,200,000	10.2548	802,095	415,480,000	16.0877
10-14	668,178	203,520,000	27.3592	519,635	354,560,000	12.2131	1,187,813	558,080,000	17.7366
15-19	429,133	121,520,000	29.4281	370,188	204,840,000	15.0600	799,321	326,360,000	20.4100
20-24	302,200	66,200,000	38.0413	227,047	102,800,000	18.0452	529,247	169,000,000	26.0970
25-29	253,783	45,520,000	46.4600	122,753	47,320,000	21.6175	376,536	92,840,000	33.7979
30-34	79,981	10,640,000	62.6418	19,335	6,360,000	25.3341	99,316	17,000,000	48.6843
35-39	22,439	1,880,000	99.4637	4,586	880,000	43.6280	27,025	2,760,000	81.5972
40+	592	40,000	123.3333	1,015	160,000	52.8646	1,607	200,000	66.9583
TOTAL	3,061,165	1,057,640,000	24.1195	2,159,930	1,620,080,000	11.1102	5,221,095	2,677,720,000	16.2486

DISTRIBUTION C8

Louisiana State Employees' Retirement System
Distributions as of 07-01-1993

TABLE A: Preretirement Death Benefits One Year Term Cost By Age Groups
\$40,000 Death Benefit - All Participants - Alternative Actuarial Assumptions

Age Group	M A L E		F E M A L E		A L L	
	Total 1YT	Benefits 1YT/1000	Total 1YT	Benefits 1YT/1000	Total 1YT	Benefits 1YT/1000
00-19	1,600	1,280,000	340	720,000	1,940	2,000,000
20-24	68,142	50,880,000	22,720	45,440,000	90,862	96,320,000
25-29	133,565	111,360,000	77,551	153,240,000	211,116	264,600,000
30-34	157,638	145,320,000	145,978	244,960,000	303,616	390,280,000
35-39	208,282	166,960,000	281,406	307,320,000	489,688	474,280,000
40-44	319,430	174,120,000	463,449	297,800,000	782,879	471,920,000
45-49	483,256	156,800,000	564,729	235,760,000	1,047,985	392,560,000
50-54	582,847	112,040,000	575,081	161,640,000	1,157,928	273,680,000
55-59	669,137	79,280,000	578,642	106,720,000	1,247,779	186,000,000
60-64	588,337	43,840,000	398,869	49,080,000	987,206	92,920,000
65-69	289,278	13,280,000	170,212	14,280,000	459,490	27,560,000
70-74	3,761	2,280,000	0	3,040,000	3,761	5,320,000
75-79	0	200,000	0	80,000	0	280,000
80-84	0	0	0	0	0	0
85+	0	0	0	0	0	0
TOTAL	3,505,273	1,057,640,000	3,278,977	1,620,080,000	6,784,250	2,677,720,000

TABLE B: Preretirement Death Benefits One Year Term Cost By Service Groups
\$40,000 Death Benefit - All Participants - Alternative Actuarial Assumptions

Service Group	M A L E		F E M A L E		A L L	
	Total 1YT	Benefits 1YT/1000	Total 1YT	Benefits 1YT/1000	Total 1YT	Benefits 1YT/1000
0	331,190	143,280,000	293,378	210,480,000	624,568	353,760,000
1	133,580	65,480,000	121,159	86,960,000	254,739	152,440,000
2	203,848	91,400,000	200,746	153,040,000	404,594	244,440,000
3	197,838	84,800,000	192,741	136,520,000	390,579	221,320,000
4	138,788	55,080,000	103,205	68,960,000	241,993	124,040,000
00-04	1,005,244	440,040,000	911,229	655,960,000	1,916,473	1,096,000,000
05-09	568,484	168,280,000	459,188	247,200,000	1,027,672	415,480,000
10-14	746,564	203,520,000	782,224	354,560,000	1,528,788	558,080,000
15-19	471,473	121,520,000	560,331	204,840,000	1,031,804	326,360,000
20-24	328,515	66,200,000	344,941	102,800,000	673,456	169,000,000
25-29	271,590	45,520,000	184,968	47,320,000	456,558	92,840,000
30-34	87,631	10,640,000	28,573	6,360,000	116,204	17,000,000
35-39	25,091	1,880,000	6,160	880,000	31,251	2,760,000
40+	681	40,000	1,363	160,000	2,044	200,000
TOTAL	3,505,273	1,057,640,000	3,278,977	1,620,080,000	6,784,250	2,677,720,000

DISTRIBUTION C9

Teachers Retirement System of Louisiana
Distributions as of 07-01-1993

TABLE A: Preretirement Death Benefits One Year Term Cost By Age Groups
\$40,000 Death Benefit - All Participants - Actuarial Valuation Assumptions

Age Group	M A L E		F E M A L E		A L L	
	Total 1YT	Benefits 1YT/1000	Total 1YT	Benefits 1YT/1000	Total 1YT	Benefits 1YT/1000
00-19	0	0 .0000	40	200,000	40	200,000
20-24	3,789	8,160,000 3.8695	15,269	57,800,000 2.2014	19,058	65,960,000 1.6667
25-29	25,142	45,320,000 4.6231	72,189	219,960,000 2.7349	97,331	265,280,000 3.0575
30-34	40,138	54,480,000 6.1396	131,959	291,960,000 3.7665	172,097	346,440,000 4.1397
35-39	84,676	79,680,000 8.8558	262,725	424,800,000 5.1539	347,401	504,480,000 5.7386
40-44	196,594	116,880,000 14.0168	508,222	557,160,000 7.6014	704,816	674,040,000 8.7138
45-49	395,247	132,880,000 24.7872	697,176	483,880,000 12.0067	1,092,423	616,760,000 14.7602
50-54	571,236	114,080,000 41.7277	796,032	352,160,000 18.8369	1,367,268	466,240,000 24.4378
55-59	501,590	66,800,000 62.5736	747,830	206,080,000 30.2403	1,249,420	272,880,000 38.1554
60-64	391,945	33,800,000 96.6334	573,387	95,880,000 49.8355	965,332	129,680,000 62.0330
65-69	203,485	10,120,000 167.5601	245,570	24,880,000 82.2515	449,055	35,000,000 106.9179
70-74	0	2,800,000 .0000	0	4,400,000 .0000	0	7,200,000 .0000
75-79	0	160,000 .0000	0	160,000 .0000	0	320,000 .0000
80-84	0	0 .0000	0	0 .0000	0	0 .0000
85+	0	0 .0000	0	0 .0000	0	0 .0000
TOTAL	2,413,842	665,160,000 30.2414	4,050,399	2,719,320,000 12.4124	6,464,241	3,384,480,000 15.9164

TABLE B: Preretirement Death Benefits One Year Term Cost By Service Groups
\$40,000 Death Benefit - All Participants - Actuarial Valuation Assumptions

Service Group	M A L E		F E M A L E		A L L	
	Total 1YT	Benefits 1YT/1000	Total 1YT	Benefits 1YT/1000	Total 1YT	Benefits 1YT/1000
0	28,769	20,120,000 11.9156	69,739	99,480,000 5.8420	98,508	119,600,000 6.8637
1	61,643	38,880,000 13.2122	111,934	172,520,000 5.4068	173,577	211,400,000 6.8424
2	66,000	37,400,000 14.7059	155,900	195,280,000 6.6528	221,900	232,680,000 7.9473
3	63,870	37,320,000 14.2618	118,231	139,920,000 7.0416	182,101	177,240,000 8.5619
4	64,754	29,000,000 18.6075	157,988	165,200,000 7.9695	222,742	194,200,000 9.5581
00-04	285,036	162,720,000 14.5975	613,792	772,400,000 6.6221	898,828	935,120,000 8.0099
05-09	281,983	103,920,000 22.6122	629,337	540,520,000 9.7026	911,320	644,440,000 11.7844
10-14	319,400	98,720,000 26.9618	723,870	471,360,000 12.7975	1,043,270	570,080,000 15.2503
15-19	376,244	104,680,000 29.9519	777,907	440,980,000 14.7037	1,154,151	565,560,000 17.6295
20-24	432,924	93,280,000 38.6760	655,201	293,560,000 18.5993	1,088,125	386,840,000 23.4405
25-29	476,586	74,720,000 53.1524	451,764	153,440,000 24.5353	928,350	228,160,000 33.9071
30-34	186,032	22,440,000 69.0850	139,687	37,280,000 31.2247	325,719	59,720,000 45.4509
35-39	50,784	4,120,000 102.7184	48,694	8,360,000 48.5387	99,478	12,480,000 66.4249
40+	4,853	560,000 72.2173	10,147	1,520,000 55.6305	15,000	2,080,000 60.0962
TOTAL	2,413,842	665,160,000 30.2414	4,050,399	2,719,320,000 12.4124	6,464,241	3,384,480,000 15.9164

DISTRIBUTION C10

Teachers Retirement System of Louisiana
Distributions as of 07-01-1993

TABLE A: Preretirement Death Benefits One Year Term Cost By Age Groups
\$40,000 Death Benefit - All Participants - Alternative Actuarial Assumptions

Age Group	M A L E		F E M A L E		A L L	
	Total Yr	Benefits 1YT/1000	Total Yr	Benefits 1YT/1000	Total Yr	Benefits 1YT/1000
00-19	0	0	95	200,000	95	200,000
20-24	10,883	8,160,000	28,900	57,800,000	39,783	65,960,000
25-29	54,187	45,320,000	111,199	219,960,000	165,386	265,280,000
30-34	59,135	54,480,000	173,182	291,960,000	232,317	346,440,000
35-39	100,612	79,680,000	394,164	424,800,000	494,776	504,480,000
40-44	215,822	116,880,000	871,754	557,160,000	1,087,576	674,040,000
45-49	413,210	132,880,000	1,161,996	483,880,000	1,575,206	616,760,000
50-54	589,991	114,080,000	1,251,855	352,160,000	1,841,846	466,240,000
55-59	555,236	66,800,000	1,115,054	206,080,000	1,670,290	272,880,000
60-64	457,639	33,800,000	778,076	95,880,000	1,235,715	129,680,000
65-69	220,860	10,120,000	296,497	24,880,000	517,357	35,000,000
70-74	0	2,800,000	0	4,400,000	0	7,200,000
75-79	0	160,000	0	160,000	0	320,000
80-84	0	0	0	0	0	0
85+	0	0	0	0	0	0
TOTAL	2,677,575	665,160,000	6,182,772	2,719,320,000	8,860,347	3,384,480,000

TABLE B: Preretirement Death Benefits One Year Term Cost By Service Groups
\$40,000 Death Benefit - All Participants - Alternative Actuarial Assumptions

Service Group	M A L E		F E M A L E		A L L	
	Total Yr	Benefits 1YT/1000	Total Yr	Benefits 1YT/1000	Total Yr	Benefits 1YT/1000
0	37,531	20,120,000	110,304	99,480,000	147,835	119,600,000
1	78,422	38,880,000	178,426	172,520,000	256,848	211,400,000
2	81,398	37,400,000	243,342	195,280,000	324,740	232,680,000
3	78,633	37,320,000	186,390	139,920,000	265,023	177,240,000
4	74,287	29,000,000	244,969	165,200,000	319,256	194,200,000
00-04	350,271	162,720,000	963,431	772,400,000	1,313,702	935,120,000
05-09	317,248	103,920,000	965,126	540,520,000	1,282,374	644,440,000
10-14	351,036	98,720,000	1,102,902	471,360,000	1,453,938	570,080,000
15-19	409,560	104,680,000	1,195,623	440,880,000	1,605,183	545,560,000
20-24	465,826	93,280,000	1,003,217	293,560,000	1,469,043	386,840,000
25-29	514,067	74,720,000	672,010	153,440,000	1,186,077	228,160,000
30-34	206,337	22,440,000	202,465	37,280,000	408,802	59,720,000
35-39	57,815	4,120,000	65,328	8,360,000	123,143	12,480,000
40+	5,415	560,000	12,670	1,520,000	18,085	2,080,000
TOTAL	2,677,575	665,160,000	6,182,772	2,719,320,000	8,860,347	3,384,480,000

DISTRIBUTION C11

Louisiana State Employees' Retirement System
Distributions as of 07-01-1993

TABLE A: Preretirement Death Benefits One Year Term Cost By Age Groups as a Percent of Earnings
Two Times Pay Death Benefit - All Participants - Actuarial Valuation Assumptions

Age Group	M A L E			F E M A L E			A L L		
	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage
00-19	330	393,286	.0839	97	217,618	.0446	427	610,904	.0699
20-24	17,833	18,126,882	.0984	9,389	16,723,000	.0561	27,222	34,849,882	.0781
25-29	56,815	46,983,508	.1209	48,821	68,225,085	.0716	105,636	115,208,593	.0917
30-34	114,870	71,504,597	.1606	114,100	117,740,609	.0969	228,970	189,245,206	.1210
35-39	212,544	94,618,566	.2246	220,657	165,980,353	.1329	433,201	260,598,919	.1662
40-44	404,266	113,710,964	.3555	333,921	173,338,977	.1926	738,187	287,049,941	.2572
45-49	694,915	111,428,858	.6236	415,278	136,383,230	.3045	1,110,193	247,812,088	.4480
50-54	845,508	79,526,827	1.0632	438,389	92,041,542	.4763	1,283,897	171,568,369	.7483
55-59	906,998	56,553,172	1.6038	447,306	58,489,662	.7648	1,354,304	115,042,834	1.1772
60-64	755,841	31,120,502	2.4288	341,522	26,973,556	1.2654	1,097,163	58,094,058	1.8886
65-69	439,158	10,332,102	4.2504	159,332	7,656,314	2.0811	598,490	17,988,416	3.3271
70-74	11,121	1,735,447	.6408	0	1,615,254	.0000	11,121	3,350,701	.3319
75-79	0	117,280	.0000	0	23,239	.0000	0	140,519	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	4,460,199	636,151,991	.7011	2,528,612	865,408,439	.2922	6,988,811	1,501,560,430	.4654

TABLE B: Preretirement Death Benefits One Year Term Cost By Service Groups as a Percent of Earnings
Two Times Pay Death Benefit - All Participants - Actuarial Valuation Assumptions

Service Group	M A L E			F E M A L E			A L L		
	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage
0	252,929	57,882,263	.4370	170,936	86,422,209	.1978	423,865	144,304,472	.2937
1	125,167	29,994,808	.4173	75,388	36,946,310	.2040	200,555	66,941,118	.2996
2	199,186	45,010,150	.4425	133,275	71,193,645	.1872	332,461	116,203,795	.2861
3	192,739	42,870,818	.4496	132,147	65,366,086	.2022	324,886	108,236,904	.3002
4	146,551	29,271,205	.5007	71,483	34,285,631	.2085	218,034	63,556,836	.3431
00-04	916,572	205,029,244	.4470	583,229	294,213,881	.1982	1,499,801	499,243,125	.3004
05-09	651,509	95,246,781	.6840	338,601	128,615,438	.2633	990,110	223,862,219	.4423
10-14	999,114	137,959,602	.7242	607,688	200,937,197	.3024	1,606,802	338,896,799	.4741
15-19	711,424	93,834,867	.7582	478,180	132,758,601	.3602	1,189,604	226,593,468	.5250
20-24	529,582	54,950,141	.9638	308,469	69,972,727	.4408	838,058	124,922,868	.6709
25-29	440,661	37,351,046	1.1798	175,096	33,654,921	5.203	615,757	71,005,967	.8672
30-34	164,585	9,993,148	1.6470	29,427	4,561,101	.6452	194,012	14,554,249	1.3330
35-39	46,039	1,764,222	2.6096	6,095	555,847	1.0965	52,134	2,320,069	2.2471
40+	713	22,940	3.1081	1,827	138,726	1.3170	2,540	161,666	1.5711
TOTAL	4,460,199	636,151,991	.7011	2,528,612	865,408,439	.2922	6,988,811	1,501,560,430	.4654

DISTRIBUTION C13

Teachers Retirement System of Louisiana
Distributions as of 07-01-1993

TABLE A: Preretirement Death Benefits One Year Term Cost By Age Groups as a Percent of Earnings
Two Times Pay Death Benefit - All Participants - Actuarial Valuation Assumptions

Age Group	M A L E			F E M A L E			A L L		
	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage
00-19	0	0	.0000	14	33,673	.0416	14	33,673	.0416
20-24	3,430	3,390,232	.1012	13,355	23,513,520	.0568	16,785	26,903,752	.0624
25-29	27,757	23,133,525	.1200	72,258	103,555,856	.0698	100,015	126,689,381	.0789
30-34	49,244	31,106,426	.1583	132,442	137,938,627	.0960	181,686	169,045,053	.1075
35-39	124,815	54,698,123	.2282	304,382	226,447,056	.1344	429,197	281,145,179	.1527
40-44	333,083	92,792,867	.3590	649,013	333,262,030	.1947	982,096	426,054,897	.2305
45-49	774,018	121,448,214	.6373	1,055,437	299,911,317	.3067	1,693,863	421,359,531	.4020
50-54	1,230,289	115,667,187	1.0636	1,055,437	220,657,536	.4783	2,285,726	336,324,723	.6796
55-59	1,123,727	70,474,184	1.5945	930,665	121,384,446	.7667	2,054,392	191,858,630	1.0708
60-64	921,483	37,332,960	2.4683	701,526	55,161,448	1.2718	1,623,009	92,494,408	1.7547
65-69	494,853	11,671,142	4.2400	308,217	14,743,309	2.0906	803,070	26,414,451	3.0403
70-74	0	2,762,921	.0000	0	2,376,963	.0000	0	5,139,884	.0000
75-79	0	108,174	.0000	0	113,744	.0000	0	221,918	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	5,082,699	564,585,955	1.9003	5,087,154	1,539,099,525	.3305	10,169,853	2,103,685,480	.4834

TABLE B: Preretirement Death Benefits One Year Term Cost By Service Groups as a Percent of Earnings
Two Times Pay Death Benefit - All Participants - Actuarial Valuation Assumptions

Service Group	M A L E			F E M A L E			A L L		
	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage
0	23,365	7,112,956	.3285	40,872	26,931,243	.1518	64,237	34,044,199	.1887
1	79,052	21,267,794	.3717	109,013	77,773,514	.1402	188,065	99,041,308	.1899
2	97,541	22,685,514	.4300	157,045	90,626,509	.1733	254,586	113,312,023	.2247
3	99,615	23,323,593	.4271	118,156	66,054,043	.1789	217,771	89,377,636	.2437
4	99,634	18,576,304	.5363	157,457	77,810,430	.2024	257,091	96,386,734	.2667
00-04	399,207	92,966,161	.4294	582,543	339,195,739	.1717	981,750	432,161,900	.2272
05-09	518,552	79,110,321	.6555	641,463	271,929,964	.2359	1,160,015	351,040,285	.3305
10-14	665,181	88,646,058	.7504	822,330	270,948,083	.3035	1,487,511	359,594,141	.4137
15-19	801,677	98,221,875	.8162	973,997	282,289,744	.3450	1,775,674	380,511,219	.4667
20-24	983,157	94,415,268	1.0413	954,844	212,102,799	.4502	1,938,001	306,518,067	.6323
25-29	1,123,063	80,490,023	1.3953	743,191	121,726,924	.6105	1,866,254	202,216,947	.9229
30-34	448,912	24,982,782	1.7969	254,003	31,795,394	.7989	702,915	56,778,176	1.2380
35-39	127,222	4,911,269	2.5904	94,908	7,679,061	1.2359	222,130	12,590,330	1.7643
40+	15,728	842,598	1.8666	19,875	1,431,817	1.3881	35,603	2,274,415	1.5654
TOTAL	5,082,699	564,585,955	.9003	5,087,154	1,539,099,525	.3305	10,169,853	2,103,685,480	.4834

Section D - Existing PreRetirement Death Benefits

Using databases from the LASERS and Teachers' Retirement systems, determine the benefits to the employee and measure the expected value of the existing in-service survivor benefits in LASERS and Teachers Retirement systems. To this, add summary data provided by the Legislative Auditor describing the aggregate cost and face amount of the Continental National Assurance (CNA) life insurance plan to the state for the employees who participate in LASERS and Teachers' Retirement systems. M&R understands that this information is only an estimate; more precise data is unavailable at this time because of a computer conversion at SEGBP.

Sections

Louisiana State Employees' Retirement System Survivor's Benefits and Teachers' Retirement System of Louisiana Survivor's Benefits describe the current preretirement death benefits provided in these retirement systems

CNA Life Insurance Plan describes the insurance lump sum benefit provided By the State Of Louisiana for its employees.

Costs of PreRetirement Death Benefits in Current Retirement Systems provides expected values of the current system.

Louisiana State Employees' Retirement System Survivor's Benefits

Regular, Correction, Legislature, Wildlife, & Judges:

Surviving Spouse with Minor Children. Eligible after 5 years. Benefit equals 75% x Final Average Earnings. Benefit ceases at age of Majority.

Surviving Spouse without Minor Children. Eligible after 10 years. Benefit equals 50% x Final Average Earnings. Benefit is payable for spouse's lifetime.

No Surviving Spouse or Death prior to eligibility. Return of member contributions.

The surviving spouse receives the greater of all benefits eligible for. Therefore, death with 5 but less than 10 years results in a 75% x Final Average Earnings until assumed age of majority only. Death with 10 years results in 75% x Final Average Earnings until assumed age of majority followed by 50% x Final Average Earnings deferred single life to spouse.

Judges:

Judges' survivor benefits are not less than the greater of (1) of 1/3 of compensation or (2) 50% of the retirement pay which such member was entitled. We assume that the Regular benefit formula above will always be greater than either (1) or (2). The exception is that death with less than 10 years of service results in a spouse annuity of 1/3 x Compensation, whereas the Regular formula would not provide a spouse's annuity.

Teachers' Retirement System of Louisiana Survivor's Benefits

All employees except School Plan B Employees

Surviving Spouse with Minor Children. Spouse's benefit equals 50% of the benefit which the member would have been entitled up Louisiana Teachers' Retirement System on retirement at age 60 without change in compensation and using a factor of 2 ½%, or \$3,600 if greater. Benefit ceases on death of spouse, upon remarriage before age 55 (unless 20 years of service), or when dependent children reach age of majority.

Surviving Minor Children. Each minor child, up to two, is paid 50% of spouse's benefit above. The total benefit to family is at least the Option 2 equivalent (100% Joint and Survivor Annuity) of the benefit based on years of service at member's death using the 2 ½% benefit formula. Benefit ceases at death or age of majority.

Surviving Spouse without Minor Children. Eligible after 10 years. Benefit equals the Option 2 equivalent (100% joint and survivor annuity) of the benefit based on service to death and a 2 ½% rate, or \$3,600 if greater. Benefit ceases at death of spouse, or remarriage unless member was eligible for service retirement.

No Eligible Beneficiary. Return of member contributions.

School Plan B Employees

If eligible for normal retirement. the surviving spouse shall receive the Option 2 benefits that would have been available had the member retired and elected the Option 2 benefits prior to death.

If not eligible for normal retirement, but credited with 20 years of service at death and not eligible for Social Security benefits, the surviving spouse shall receive the Option 2 benefits that would have been payable had they been elected prior to death. Benefits cease upon remarriage or eligibility for Social Security, and are not paid until spouse reaches age 50.

Notwithstanding the above, School Plan B survivor's benefits equal the Option 2 equivalent of the accrued retirement benefit.

CNA Life Insurance Plan

CNA Basic Plan

Employee - \$5,000

Spouse - \$1,000

Each child - \$500

CNA Supplemental Plan (includes basic plan coverage)

Employee - Based on a schedule with a maximum of \$40,000 based on employee's annual salary

Spouse - \$2,000

Each child - \$1,000

Accidental Death & Dismemberment

life, both hands, both feet, 1 hand and 1 foot, both eyes, 1 hand & 1 eye, 1 foot & 1 eye - principal sum

1 hand, 1 foot, or 1 eye - ½ of principal sum

Cost sharing

Employees must contribute 50 % of the cost of life insurance. The cost is \$.88 per \$1000 per month. employee's share of basic benefit is \$2.20 per month. For dependent basic coverage, the employee pays \$.90/month. For dependent supplemental coverage, the employee pays \$1.80 per month.

Costs of PreRetirement Death Benefits in Current Retirement Systems

We measured the expected benefit and the present value of the expected benefit of the current preretirement death benefits in the Teachers Retirement System and in the LASERS.

Please refer to Please refer to the Introduction for the actuarial methodology and definitions and Appendix 1 for the actuarial assumptions.

Exhibit D1 shows the expected values of the current preretirement death benefit if a person dies while an employee covered either by the LASERS or the Teachers' Retirement System. The required contribution to the retirement systems with respect to this benefit is 0.74% of payroll in total assumed payable at the beginning of the year. If this benefit were financed in a stand alone plan, the cost could equal (or exceed) 0.90% of payroll if costs were determined on a "1 year term cost basis" and 1.39% of payroll if determined on an aggregate cost basis.

The required contribution to the LASERS with respect to this benefit is 0.91% of payroll in total assumed payable at the beginning of the year. If this benefit were financed in a stand alone plan, the cost could equal (or exceed) 1.04% of payroll if costs were determined on a "1 year term cost basis" and 1.74% of payroll if determined on an aggregate cost basis.

The required contribution to the Teachers' Retirement System with respect to this benefit is 0.62% of payroll in total assumed payable at the beginning of the year. If this benefit were financed in a stand alone plan, the cost could equal (or exceed) 0.80% of payroll if costs were determined on a "1 year term cost basis" and 1.18% of payroll if determined on an aggregate cost basis.

Distributions D2 through D5 are age-service distributions of 1 year term costs of the current plans' preretirement death benefit. Distribution D2 is a distribution of the LASERS based on the current actuarial assumptions and shows the average cost per participant. The average term cost per employee is \$193 and ranges from \$1 an employee to \$2,332 for male employees 65-69. Distribution D5 is a distribution of the Teachers' Retirement System based on the alternative actuarial assumptions and shows the average cost per plan participant. The average term cost is \$206 and ranges from \$3 to \$801.

Distributions D6, D7, and D8 are age distributions of the one year term cost as a percent of earnings.

Distributions D9 and D10 are sample age-service distributions of the present value of future benefits of the current plans' preretirement death benefits. Distribution D9 is a distribution of the LASERS based on the current actuarial assumptions and shows the present value of future benefits as a percent of earnings. It shows that the benefits are most valuable to males aged 45-64 where the value for all future preretirement death benefits is 20% of earnings. This percentage would be even higher under the alternative actuarial assumptions. Distribution D10 is a distribution of the Teachers Retirement System based on the current actuarial assumptions and shows the present value of future benefits as a percent of earnings. It shows that the benefits are most valuable to males aged 35-49 where the value for all future preretirement death benefits averages to be 17% of earnings.

These distributions may be viewed as a tool for determining the value of the benefit to the employee or as a tool for determining the cost of an employee's benefit.

Based on information provided by the staff of the Legislative Auditor, the average of the in-service death benefit costs were \$885,400 per month for the months of November 1993 and May 1994. This amount includes premiums for retired lives.

Exhibit D1

State of Louisiana Retirement Systems Current In-Service Death Benefit Provisions

	LASERS		Teachers		Total	
Number of Participants	66,943		84,612		151,555	
Compensation	1,548,407,194		2,170,167,043		3,718,574,237	
Alternative Cost Measures Current Assumptions						
Present Value of Future Benefits	173,739,189		184,750,945		358,490,134	
Present Value of Future Salary	12,467,371,446		20,668,476,440		33,135,847,886	
Accrued Liability	99,940,046		112,732,388		212,672,434	
1 Year Term Cost	12,909,811	0.83%	13,294,041	0.61%	26,203,852	0.70%
Aggregate Cost	21,577,845	1.39%	19,398,644	0.89%	40,230,514	1.08%
Unit Credit Normal Cost	9,337,729	0.60%	7,989,325	0.37%	17,327,054	0.47%
Amortization	4,815,524	0.31%	5,431,912	0.25%	10,247,436	0.28%
"Pension Funding"	14,153,253	0.91%	13,421,237	0.62%	27,574,490	0.74%
Alternative Cost Measures Alternative Assumptions						
Present Value of Future Benefits	213,995,221		240,623,395		454,618,616	
Present Value of Future Salary	12,314,640,036		20,330,863,063		32,645,503,099	
Accrued Liability	123,279,383		146,602,749		269,882,132	
1 Year Term Cost	16,033,783	1.04%	17,420,974	0.80%	33,454,757	0.90%
Aggregate Cost	26,907,140	1.74%	25,684,741	1.18%	51,784,562	1.39%
Unit Credit Normal Cost	11,575,157	0.75%	10,548,084	0.49%	22,123,241	0.59%
Amortization	5,940,110	0.38%	7,063,926	0.33%	13,004,035	0.35%
"Pension Funding"	17,515,267	1.13%	17,612,010	0.81%	35,127,276	0.94%

DISTRIBUTION D2

Louisiana State Employees' Retirement System
Distributions as of 07-01-1993

TABLE A: Preretirement Death Benefits One Year Term Cost By Age Groups
Current Pension Benefit - All Participants - Actuarial Valuation Assumptions

Age Group	H	A	L	E	F	E	M	A	L	E	A	L	L	Average 1YT Cost
00-19	32	0	0	0	18	0	0	0	0	0	0	0	0	0
20-24	1,272	992	1	1,136	3,831	22,207	235	0	0	0	0	0	0	0
25-29	2,784	33,794	12	6,124	174,664	174,664	22,207	235	0	0	0	0	0	1
30-34	3,633	176,814	49	7,683	424,884	424,884	22,207	235	0	0	0	0	0	8
35-39	4,174	418,729	100	7,445	665,213	665,213	22,207	235	0	0	0	0	0	36
40-44	4,353	870,482	200	5,894	812,614	812,614	22,207	235	0	0	0	0	0	71
45-49	3,920	1,490,332	380	4,041	744,315	744,315	22,207	235	0	0	0	0	0	130
50-54	2,801	1,649,461	589	2,668	733,131	733,131	22,207	235	0	0	0	0	0	235
55-59	1,982	1,685,805	851	1,227	553,310	553,310	22,207	235	0	0	0	0	0	350
60-64	1,096	1,390,956	1,269	76	246,930	246,930	22,207	235	0	0	0	0	0	525
65-69	332	774,218	2,332	0	0	0	22,207	235	0	0	0	0	0	837
70-74	57	20,632	362	2	0	0	22,207	235	0	0	0	0	0	1,482
75-79	5	0	0	0	0	0	22,207	235	0	0	0	0	0	155
80-84	0	0	0	0	0	0	22,207	235	0	0	0	0	0	0
85+	0	0	0	0	0	0	22,207	235	0	0	0	0	0	0
TOTAL	26,441	8,512,215	322	40,502	4,397,503	4,397,503	22,207	235	0	0	0	0	0	193

TABLE B: Preretirement Death Benefits One Year Term Cost By Service Groups
Current Pension Benefit - All Participants - Actuarial Valuation Assumptions

Service Group	H	A	L	E	F	E	M	A	L	E	A	L	L	Average 1YT Cost
0	3,582	16,044	4	5,262	1,692	1,692	0	0	0	0	0	0	0	2
1	1,637	4,453	3	2,174	431	431	0	0	0	0	0	0	0	1
2	2,285	28,443	12	3,826	3,087	3,087	1	1	1	1	1	1	1	5
3	2,120	9,075	4	3,413	3,89	3,89	0	0	0	0	0	0	0	2
4	1,377	91,164	66	1,724	47,825	47,825	28	28	28	28	28	28	28	45
00-04	11,001	149,179	14	16,399	53,424	53,424	3	3	3	3	3	3	3	7
05-09	4,207	975,888	232	6,180	555,807	555,807	90	90	90	90	90	90	90	147
10-14	5,088	2,544,610	500	8,864	1,434,155	1,434,155	164	164	164	164	164	164	164	287
15-19	3,038	1,854,829	611	5,121	1,135,944	1,135,944	222	222	222	222	222	222	222	367
20-24	1,655	1,365,169	825	2,570	719,079	719,079	280	280	280	280	280	280	280	493
25-29	1,138	1,118,812	983	1,183	399,914	399,914	338	338	338	338	338	338	338	654
30-34	266	398,466	1,498	159	64,109	64,109	403	403	403	403	403	403	403	1,088
35-39	47	103,703	2,206	22	11,657	11,657	530	530	530	530	530	530	530	1,672
40+	1	1,559	1,559	4	3,414	3,414	854	854	854	854	854	854	854	995
TOTAL	26,441	8,512,215	322	40,502	4,397,503	4,397,503	109	109	109	109	109	109	109	193

DISTRIBUTION D3

Louisiana State Employees' Retirement System
Distributions as of 07-01-1993

TABLE A: Preretirement Death Benefits One Year Term Cost By Age Groups
Current Pension Benefit - All Participants - Alternative Study Assumptions

Age Group	Count	M	A	L	E	F	E	M	A	L	E	A	L	L	Average 1YT Cost
		Total 1YT Cost	Average 1YT Cost	Count	Total 1YT Cost	Average 1YT Cost	Count	Total 1YT Cost	Average 1YT Cost	Count	Total 1YT Cost	Average 1YT Cost	Count	Total 1YT Cost	Average 1YT Cost
00-19	32	0	0	18	0	0	0	0	0	50	0	0	0	0	0
20-24	1,272	2,808	2	1,136	448	0	0	0	0	2,408	3,256	1	3,256	3,256	
25-29	2,784	68,385	25	3,631	33,088	9	0	0	0	6,615	101,473	15	101,473	101,473	
30-34	3,633	252,603	70	6,124	232,211	38	0	0	0	9,757	484,814	50	484,814	484,814	
35-39	4,174	495,262	119	7,683	625,668	81	0	0	0	11,857	1,120,930	95	1,120,930	1,120,930	
40-44	4,353	950,013	218	7,445	1,136,437	153	0	0	0	11,798	2,086,450	177	2,086,450	2,086,450	
45-49	3,920	1,544,973	394	5,894	1,344,464	228	0	0	0	9,814	2,889,437	294	2,889,437	2,889,437	
50-54	2,801	1,687,758	603	4,041	1,165,363	288	0	0	0	6,842	2,853,121	417	2,853,121	2,853,121	
55-59	1,982	1,854,674	936	2,668	1,117,465	419	0	0	0	4,650	2,972,139	639	2,972,139	2,972,139	
60-64	1,096	1,612,570	1,471	1,227	749,974	611	0	0	0	2,323	2,362,544	1,017	2,362,544	2,362,544	
65-69	332	838,954	2,527	357	299,547	839	0	0	0	689	1,138,501	1,652	1,138,501	1,138,501	
70-74	57	21,356	375	76	0	0	0	0	0	133	21,356	161	21,356	21,356	
75-79	5	0	0	2	0	0	0	0	0	7	0	0	0	0	
80-84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
85+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL	26,441	9,329,356	353	40,502	6,704,665	166	0	0	0	66,943	16,034,021	240	16,034,021	16,034,021	

TABLE B: Preretirement Death Benefits One Year Term Cost By Service Groups
Current Pension Benefit - All Participants - Alternative Study Assumptions

Service Group	Count	M	A	L	E	F	E	M	A	L	E	A	L	L	Average 1YT Cost
		Total 1YT Cost	Average 1YT Cost	Count	Total 1YT Cost	Average 1YT Cost	Count	Total 1YT Cost	Average 1YT Cost	Count	Total 1YT Cost	Average 1YT Cost	Count	Total 1YT Cost	Average 1YT Cost
0	3,582	17,222	5	5,262	2,707	1	0	0	0	8,844	19,929	2	19,929	19,929	
1	1,637	5,109	3	2,174	678	0	0	0	0	3,811	5,787	2	5,787	5,787	
2	2,285	30,669	13	3,826	4,821	1	0	0	0	6,111	35,490	6	35,490	35,490	
3	2,120	10,296	5	3,413	629	0	0	0	0	5,533	10,925	2	10,925	10,925	
4	1,377	109,739	80	1,724	73,617	43	0	0	0	3,101	183,356	59	183,356	183,356	
00-04	11,001	173,035	16	16,399	82,452	5	0	0	0	27,400	255,487	9	255,487	255,487	
05-09	4,207	1,123,873	267	6,180	843,517	136	0	0	0	10,387	1,967,390	189	1,967,390	1,967,390	
10-14	5,088	2,814,241	553	8,864	2,201,290	248	0	0	0	13,952	5,015,531	359	5,015,531	5,015,531	
15-19	3,038	2,015,750	664	5,121	1,742,569	340	0	0	0	8,159	3,758,319	461	3,758,319	3,758,319	
20-24	1,655	1,466,863	886	2,570	1,110,168	432	0	0	0	4,225	2,577,011	610	2,577,011	2,577,011	
25-29	1,138	1,185,018	1,041	1,183	609,320	515	0	0	0	2,321	1,794,338	773	1,794,338	1,794,338	
30-34	266	433,469	1,630	159	94,894	597	0	0	0	425	528,363	1,243	528,363	528,363	
35-39	47	115,346	2,454	22	15,862	721	0	0	0	69	131,208	1,902	131,208	131,208	
40+	1	1,781	1,781	4	4,593	1,148	0	0	0	5	6,374	1,275	6,374	6,374	
TOTAL	26,441	9,329,356	353	40,502	6,704,665	166	0	0	0	66,943	16,034,021	240	16,034,021	16,034,021	

DISTRIBUTION D4

Teachers Retirement System of Louisiana
Distributions as of 07-01-1993

TABLE A: Preretirement Death Benefits One Year Term Cost By Age Groups
Current Pension Benefit - All Participants - Actuarial Valuation Assumptions

Age Group	M A L L E			F E M A L E			A L L		
	Count	Total 1YT Cost	Average 1YT Cost	Count	Total 1YT Cost	Average 1YT Cost	Count	Total 1YT Cost	Average 1YT Cost
00-19	0	0	0	5	0	0	5	0	0
20-24	204	0	0	1,445	68	0	1,649	68	0
25-29	1,133	7,311	6	5,499	32,163	6	6,652	39,474	6
30-34	1,362	46,343	34	7,299	153,308	21	8,661	199,651	23
35-39	1,992	194,852	98	10,620	484,323	46	12,612	679,175	54
40-44	2,922	639,368	219	13,929	1,203,408	86	16,851	1,842,776	109
45-49	3,322	1,594,187	480	12,097	1,717,620	142	15,419	3,311,807	215
50-54	2,852	2,299,277	806	8,804	1,743,904	198	11,656	4,043,181	347
55-59	1,670	876,567	525	5,152	663,989	129	6,822	1,540,556	226
60-64	845	655,647	776	2,397	462,742	193	3,242	1,118,389	345
65-69	253	325,096	1,285	622	193,192	311	875	518,288	592
70-74	70	0	0	110	0	0	180	0	0
75-79	4	0	0	4	0	0	8	0	0
80-84	0	0	0	0	0	0	0	0	0
85+	0	0	0	0	0	0	0	0	0
TOTAL	16,629	6,638,648	399	67,983	6,654,717	98	84,612	13,293,365	157

TABLE B: Preretirement Death Benefits One Year Term Cost By Service Groups
Current Pension Benefit - All Participants - Actuarial Valuation Assumptions

Service Group	M A L L E			F E M A L E			A L L		
	Count	Total 1YT Cost	Average 1YT Cost	Count	Total 1YT Cost	Average 1YT Cost	Count	Total 1YT Cost	Average 1YT Cost
0	503	0	0	2,487	0	0	2,990	0	0
1	972	0	0	4,313	0	0	5,285	0	0
2	935	0	0	4,682	0	0	5,817	0	0
3	953	90	0	3,498	74	0	4,431	164	0
4	725	17,669	24	4,130	38,249	9	4,855	55,918	12
00-04	4,068	17,759	4	19,310	38,323	2	23,378	56,082	2
05-09	2,598	264,595	102	13,513	483,157	36	16,111	747,752	46
10-14	2,468	769,957	312	11,784	1,089,671	92	14,252	1,859,628	130
15-19	2,617	1,212,963	463	11,022	1,547,809	140	13,639	2,760,772	202
20-24	2,332	1,743,518	748	7,339	1,746,242	238	9,671	3,489,760	361
25-29	1,868	1,897,217	1,016	3,836	1,304,612	340	5,704	3,201,829	561
30-34	561	571,184	1,018	932	323,981	348	1,493	895,165	600
35-39	103	144,978	1,408	209	102,140	489	312	247,118	792
40+	14	16,477	1,177	38	18,782	494	52	35,259	678
TOTAL	16,629	6,638,648	399	67,983	6,654,717	98	84,612	13,293,365	157

DISTRIBUTION D5

Teachers Retirement System of Louisiana
Distributions as of 07-01-1993

TABLE A: Preretirement Death Benefits One Year Term Cost By Age Groups
Current Pension Benefit - All Participants - Alternative Study Assumptions

Age Group	M	A	L	E	F	E	M	A	L	E	A	L	L
	Count	Total 1YT Cost	Average 1YT Cost	Count	Total 1YT Cost	Average 1YT Cost	Count	Total 1YT Cost	Average 1YT Cost	Count	Total 1YT Cost	Average 1YT Cost	
00-19	0	0	0	5	0	0	5	0	0	5	0	0	
20-24	204	0	0	1,445	130	0	1,445	130	0	1,649	130	0	
25-29	1,133	14,190	13	5,499	47,511	9	5,499	47,511	9	6,632	61,701	9	
30-34	1,362	66,809	49	7,399	203,768	28	7,399	203,768	28	8,661	270,577	31	
35-39	1,992	229,807	115	10,820	715,900	67	10,820	715,900	67	12,612	945,707	75	
40-44	2,922	696,360	238	13,929	2,033,756	147	13,929	2,033,756	147	16,851	2,750,116	163	
45-49	3,322	1,644,577	495	12,097	2,822,664	233	12,097	2,822,664	233	15,419	4,467,241	290	
50-54	2,852	2,333,373	818	8,804	2,706,185	307	8,804	2,706,185	307	11,656	5,039,558	432	
60-64	845	952,521	570	5,152	2,973,292	189	5,152	2,973,292	189	6,822	1,925,813	282	
65-69	253	752,959	891	2,397	621,837	259	2,397	621,837	259	3,242	1,374,796	424	
70-74	70	351,384	1,389	622	233,527	375	622	233,527	375	875	584,911	668	
75-79	4	0	0	110	0	0	110	0	0	180	0	0	
80-84	0	0	0	4	0	0	4	0	0	8	0	0	
85+	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL	16,629	7,041,980	423	67,983	10,378,570	153	67,983	10,378,570	153	84,612	17,420,550	206	

TABLE B: Preretirement Death Benefits One Year Term Cost By Service Groups
Current Pension Benefit - All Participants - Alternative Study Assumptions

Service Group	M	A	L	E	F	E	M	A	L	E	A	L	L
	Count	Total 1YT Cost	Average 1YT Cost	Count	Total 1YT Cost	Average 1YT Cost	Count	Total 1YT Cost	Average 1YT Cost	Count	Total 1YT Cost	Average 1YT Cost	
0	503	0	0	2,487	0	0	2,487	0	0	2,990	0	0	
1	972	0	0	4,313	0	0	4,313	0	0	5,285	0	0	
2	935	0	0	4,882	0	0	4,882	0	0	5,817	0	0	
3	933	107	0	3,498	126	0	3,498	126	0	4,431	233	0	
4	725	21,870	30	4,130	59,490	14	4,130	59,490	14	4,855	81,360	17	
00-04	4,068	21,977	5	19,310	59,616	3	19,310	59,616	3	23,378	81,593	3	
05-09	2,598	306,027	118	13,513	747,542	55	13,513	747,542	55	16,111	1,053,569	65	
10-14	2,468	831,415	337	11,784	1,700,403	144	11,784	1,700,403	144	14,252	2,531,818	178	
15-19	2,617	1,286,763	492	11,022	2,477,514	225	11,022	2,477,514	225	13,639	3,764,277	276	
20-24	2,332	1,818,927	780	7,339	2,781,741	379	7,339	2,781,741	379	9,671	4,600,668	476	
25-29	1,868	1,977,790	1,059	3,836	1,980,528	516	3,836	1,980,528	516	5,704	3,958,318	694	
30-34	561	617,834	1,101	932	471,276	506	932	471,276	506	1,493	1,089,110	729	
35-39	103	162,999	1,583	209	136,525	653	209	136,525	653	312	299,524	960	
40+	14	18,248	1,303	38	23,425	616	38	23,425	616	52	41,673	801	
TOTAL	16,629	7,041,980	423	67,983	10,378,570	153	67,983	10,378,570	153	84,612	17,420,550	206	

DISTRIBUTION D6

Louisiana State Employees' Retirement System
Distributions as of 07-01-1993

TABLE A: Preretirement Death Benefits One Year Term Cost By Age Groups as a Percent of Earnings
Current Plan - All Participants - Actuarial Valuation Assumptions

Age Group	M A L E			F E M A L E			A L L		
	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage
00-19	0	393,286	.0000	0	217,618	.0000	0	610,904	.0000
20-24	992	18,126,882	.0055	235	16,723,000	.0014	1,227	34,849,882	.0035
25-29	33,794	46,983,508	.0719	22,207	68,225,085	.0325	56,001	115,208,593	.0486
30-34	176,814	71,504,597	.2473	174,664	117,740,609	.1483	351,478	189,245,206	.1857
35-39	418,729	94,818,566	.4425	424,884	165,980,353	.2560	843,613	260,598,919	.3237
40-44	870,482	113,710,964	.7655	665,213	173,338,977	.3838	1,535,695	287,049,941	.5350
45-49	1,690,332	111,428,858	1.3375	812,614	136,383,230	.5928	2,302,946	247,812,088	.9293
50-54	1,649,461	79,526,827	2.0741	744,315	92,041,542	.8087	2,393,776	171,568,369	1.3952
55-59	1,685,805	56,553,172	2.9809	753,131	58,489,662	1.2876	2,436,936	115,042,834	2.1200
60-64	1,590,956	31,120,502	4.4696	553,310	26,973,556	2.0513	1,944,266	58,094,058	3.3468
65-69	774,218	10,332,102	7.4933	246,930	7,656,314	3.2252	1,021,148	17,988,416	5.6767
70-74	20,632	1,735,447	1.1889	0	1,615,254	.0000	20,632	3,350,701	.6158
75-79	0	117,280	.0000	0	23,239	.0000	0	140,519	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	8,512,215	636,151,991	1.3381	4,397,503	865,408,439	.5081	12,909,718	1,501,560,430	.8598

TABLE B: Preretirement Death Benefits One Year Term Cost By Service Groups as a Percent of Earnings
Current Plan - All Participants - Actuarial Valuation Assumptions

Service Group	M A L E			F E M A L E			A L L		
	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage
0	16,044	57,882,263	.0277	1,692	86,422,209	.0020	17,736	144,304,472	.0123
1	4,453	29,994,808	.0148	431	36,946,510	.0012	4,884	66,941,118	.0073
2	28,443	45,010,150	.0632	3,087	71,193,645	.0043	31,530	116,203,795	.0271
3	9,075	42,870,818	.0212	389	65,366,086	.0006	9,464	108,236,904	.0087
4	91,164	29,271,205	.3114	47,825	34,285,631	.1395	138,989	63,556,836	.2187
00-04	149,179	205,029,244	.0728	53,424	294,213,891	.0182	202,603	499,243,125	.0406
05-09	975,888	95,246,781	1.0246	555,807	128,615,438	.4321	1,531,695	223,862,219	.6842
10-14	2,544,610	137,959,602	1.8445	1,454,155	200,937,197	.7237	3,998,765	338,896,799	1.1799
15-19	1,854,829	93,834,867	1.9767	1,135,944	132,758,601	.8556	2,990,773	226,593,468	1.3199
20-24	1,365,169	54,950,141	2.4844	719,079	69,972,727	1.0277	2,084,248	124,922,868	1.6694
25-29	1,118,812	37,351,046	2.9954	399,914	33,654,921	1.1883	1,518,726	71,005,967	2.1389
30-34	398,466	9,993,148	3.9874	64,109	4,561,101	1.4056	462,575	14,554,249	3.1783
35-39	103,703	1,764,222	5.8781	11,657	555,847	2.0972	115,360	2,320,069	4.9723
40+	1,559	22,940	6.7961	3,414	138,726	2.4610	4,973	161,666	3.0761
TOTAL	8,512,215	636,151,991	1.3381	4,397,503	865,408,439	.5081	12,909,718	1,501,560,430	.8598

DISTRIBUTION D7

Louisiana State Employees' Retirement System
Distributions as of 07-01-1993

TABLE A: Preretirement Death Benefits One Year Term Cost By Age Groups as a Percent of Earnings
Current Plan - All Participants - Alternative Actuarial Assumptions

Age Group	M	A	L	E	F	E	M	A	L	E	Percentage	1YT Cost	Earnings	Percentage	A	L	L	Percentage	Earnings
00-19	0	393,286	.0000	0	217,618	.0000	0	610,904	.0000	0	610,904	.0000	0	610,904	.0000	0	610,904	.0000	
20-24	2,808	18,126,882	.0155	448	16,723,000	.0027	3,256	34,849,882	.0093	3,256	34,849,882	.0093	3,256	34,849,882	.0093	3,256	34,849,882	.0093	
25-29	68,385	46,963,508	.1456	33,088	68,225,085	.0485	101,473	115,208,593	.0881	101,473	115,208,593	.0881	101,473	115,208,593	.0881	101,473	115,208,593	.0881	
30-34	252,603	71,504,597	.3533	232,211	117,740,609	.1972	484,814	189,245,206	.2562	484,814	189,245,206	.2562	484,814	189,245,206	.2562	484,814	189,245,206	.2562	
35-39	495,262	94,618,566	.5234	625,668	165,980,353	.3770	1,120,930	260,598,919	.4301	1,120,930	260,598,919	.4301	1,120,930	260,598,919	.4301	1,120,930	260,598,919	.4301	
40-44	950,013	113,710,964	.8335	1,136,437	173,338,977	.6356	2,086,450	287,049,941	.7269	2,086,450	287,049,941	.7269	2,086,450	287,049,941	.7269	2,086,450	287,049,941	.7269	
45-49	1,544,973	111,428,858	1.3845	1,344,464	136,383,230	.9858	2,889,437	247,812,088	1.1660	2,889,437	247,812,088	1.1660	2,889,437	247,812,088	1.1660	2,889,437	247,812,088	1.1660	
50-54	1,687,758	79,326,827	2.1222	1,165,363	92,041,542	1.2661	2,853,121	171,548,369	1.6630	2,853,121	171,548,369	1.6630	2,853,121	171,548,369	1.6630	2,853,121	171,548,369	1.6630	
55-59	1,854,674	56,553,172	3.2795	1,117,465	58,489,662	1.9105	2,972,139	115,042,834	2.5835	2,972,139	115,042,834	2.5835	2,972,139	115,042,834	2.5835	2,972,139	115,042,834	2.5835	
60-64	1,612,570	31,120,502	5.1817	1,749,974	26,973,556	2.7804	2,362,544	58,094,058	4.0668	2,362,544	58,094,058	4.0668	2,362,544	58,094,058	4.0668	2,362,544	58,094,058	4.0668	
65-69	838,954	10,332,102	8.1199	299,547	7,656,314	3.9124	1,138,501	17,988,416	6.3291	1,138,501	17,988,416	6.3291	1,138,501	17,988,416	6.3291	1,138,501	17,988,416	6.3291	
70-74	21,356	1,735,447	1.2306	0	1,615,254	.0000	21,356	3,350,701	.6374	21,356	3,350,701	.6374	21,356	3,350,701	.6374	21,356	3,350,701	.6374	
75-79	0	117,280	.0000	0	23,239	.0000	0	140,519	.0000	0	140,519	.0000	0	140,519	.0000	0	140,519	.0000	
80-84	0	0	.0000	0	0	.0000	0	0	.0000	0	0	.0000	0	0	.0000	0	0	.0000	
85+	0	0	.0000	0	0	.0000	0	0	.0000	0	0	.0000	0	0	.0000	0	0	.0000	
TOTAL	9,329,356	636,151,991	1.4665	6,704,665	865,408,439	.7747	16,034,021	1,501,560,430	1.0678	16,034,021	1,501,560,430	1.0678	16,034,021	1,501,560,430	1.0678	16,034,021	1,501,560,430	1.0678	

TABLE B: Preretirement Death Benefits One Year Term Cost By Service Groups as a Percent of Earnings
Current Plan - All Participants - Alternative Actuarial Assumptions

Service Group	M	A	L	E	F	E	M	A	L	E	Percentage	1YT Cost	Earnings	Percentage	A	L	L	Percentage	Earnings
0	17,222	57,882,263	.0298	2,707	86,422,209	.0031	19,929	144,304,472	.0138	19,929	144,304,472	.0138	19,929	144,304,472	.0138	19,929	144,304,472	.0138	
1	5,109	29,994,808	.0170	678	36,946,310	.0018	5,787	66,941,118	.0086	5,787	66,941,118	.0086	5,787	66,941,118	.0086	5,787	66,941,118	.0086	
2	30,669	45,010,150	.0681	4,821	71,193,645	.0068	35,490	116,203,795	.0305	35,490	116,203,795	.0305	35,490	116,203,795	.0305	35,490	116,203,795	.0305	
3	10,296	42,870,818	.0240	629	65,366,086	.0010	10,925	108,236,904	.0101	10,925	108,236,904	.0101	10,925	108,236,904	.0101	10,925	108,236,904	.0101	
4	109,739	29,271,205	.3749	73,617	34,285,631	.2147	183,356	63,556,836	.2885	183,356	63,556,836	.2885	183,356	63,556,836	.2885	183,356	63,556,836	.2885	
00-04	173,055	205,029,244	.0844	82,452	294,213,881	.0280	255,487	499,243,125	.0512	255,487	499,243,125	.0512	255,487	499,243,125	.0512	255,487	499,243,125	.0512	
05-09	1,123,873	95,246,781	1.1800	843,517	128,615,438	.6558	1,967,390	223,862,219	.8788	1,967,390	223,862,219	.8788	1,967,390	223,862,219	.8788	1,967,390	223,862,219	.8788	
10-14	2,814,241	137,959,602	2.0399	2,201,290	200,937,197	1.0955	5,015,331	338,896,799	1.4800	5,015,331	338,896,799	1.4800	5,015,331	338,896,799	1.4800	5,015,331	338,896,799	1.4800	
15-19	2,015,750	93,834,867	2.1482	1,742,569	132,756,601	1.3126	3,758,319	226,593,468	1.6586	3,758,319	226,593,468	1.6586	3,758,319	226,593,468	1.6586	3,758,319	226,593,468	1.6586	
20-24	1,466,843	54,950,141	2.6694	1,110,168	69,972,727	1.9866	2,577,011	124,922,868	2.0629	2,577,011	124,922,868	2.0629	2,577,011	124,922,868	2.0629	2,577,011	124,922,868	2.0629	
25-29	1,185,018	37,351,046	3.1727	609,320	33,654,921	1.8105	1,794,338	71,005,967	3.6303	1,794,338	71,005,967	3.6303	1,794,338	71,005,967	3.6303	1,794,338	71,005,967	3.6303	
30-34	433,469	9,993,148	4.3377	94,894	4,561,101	2.0805	528,363	14,544,249	5.6553	528,363	14,544,249	5.6553	528,363	14,544,249	5.6553	528,363	14,544,249	5.6553	
35-39	115,346	1,764,222	6.5381	15,862	555,847	2.8537	131,208	2,320,069	3.9427	131,208	2,320,069	3.9427	131,208	2,320,069	3.9427	131,208	2,320,069	3.9427	
40+	1,781	22,940	7.7637	4,593	138,726	3.3108	6,374	161,666	3.9427	6,374	161,666	3.9427	6,374	161,666	3.9427	6,374	161,666	3.9427	
TOTAL	9,329,356	636,151,991	1.4665	6,704,665	865,408,439	.7747	16,034,021	1,501,560,430	1.0678	16,034,021	1,501,560,430	1.0678	16,034,021	1,501,560,430	1.0678	16,034,021	1,501,560,430	1.0678	

DISTRIBUTION D8

Teachers Retirement System of Louisiana
Distributions as of 07-01-1993

TABLE A: Preretirement Death Benefits One Year Term Cost By Age Groups as a Percent of Earnings
Current Plan - All Participants - Actuarial Valuation Assumptions

Age Group	M A L E		F E M A L E		A L L	
	1YT Cost	Earnings	1YT Cost	Earnings	1YT Cost	Earnings
00-19	0	0	0	33,673	0	33,673
20-24	0	3,390,232	68	23,513,520	68	26,903,752
25-29	7,311	23,133,525	32,163	103,555,856	39,474	126,689,381
30-34	46,343	31,106,426	153,308	137,938,627	199,651	169,045,053
35-39	194,852	34,698,123	484,323	226,447,056	679,175	281,145,179
40-44	639,368	92,792,867	1,203,408	333,262,030	1,842,776	426,054,897
45-49	1,594,187	121,448,214	1,717,620	299,911,317	3,311,807	421,359,531
50-54	2,299,277	115,667,187	1,743,904	220,657,536	4,043,181	336,324,723
55-59	876,567	70,474,180	663,989	121,384,446	1,540,556	191,858,630
60-64	655,647	37,332,960	462,742	55,161,448	1,118,389	92,494,408
65-69	325,096	11,671,142	193,192	14,743,309	518,288	26,414,451
70-74	0	2,762,921	0	2,376,963	0	5,139,884
75-79	0	108,174	0	113,744	0	221,918
80-84	0	0	0	0	0	0
85+	0	0	0	0	0	0
TOTAL	6,638,648	564,585,955	6,654,717	1,539,099,525	13,293,365	2,103,685,480

TABLE B: Preretirement-Death Benefits One Year Term Cost By Service Groups as a Percent of Earnings
Current Plan - All Participants - Actuarial Valuation Assumptions

Service Group	M A L E		F E M A L E		A L L	
	1YT Cost	Earnings	1YT Cost	Earnings	1YT Cost	Earnings
0	0	7,112,956	0	26,931,243	0	34,044,199
1	0	21,267,794	0	77,773,514	0	99,041,308
2	0	22,885,514	0	90,626,509	0	113,512,023
3	90	23,323,593	74	66,054,043	164	89,377,636
4	17,669	18,576,304	38,249	77,810,430	55,918	96,386,734
00-04	17,759	92,966,161	38,323	339,195,739	56,082	432,161,900
05-09	264,595	79,110,321	483,157	271,929,964	747,752	351,040,285
10-14	769,957	88,646,058	1,089,671	270,948,083	1,859,628	359,594,141
15-19	1,212,963	98,221,475	1,547,809	282,289,744	2,760,772	380,511,219
20-24	1,743,518	94,415,268	1,746,242	212,102,799	3,489,760	306,518,067
25-29	1,897,217	80,490,023	1,304,612	121,726,924	3,201,829	202,216,947
30-34	571,184	24,982,782	323,981	31,795,394	895,165	56,778,176
35-39	144,978	4,911,269	102,140	7,679,061	247,118	12,590,330
40+	16,477	842,598	18,782	1,431,817	35,259	2,274,415
TOTAL	6,638,648	564,585,955	6,654,717	1,539,099,525	13,293,365	2,103,685,480

DISTRIBUTION D9

Louisiana State Employees' Retirement System
Distributions as of 07-01-1993

Table A: Present Value Of Future Preretirement Death Benefits by Age Groups as a Percent of Earnings
Current Plan - All Participants - Actuarial Valuation Assumptions

Age Group	M A L E		F E M A L E		A L L	
	PVFB	Earnings Percentage	PVFB	Earnings Percentage	PVFB	Earnings Percentage
00-19	11,224	393,286 2.8539	3,384	217,618 1.5550	14,608	610,904 2.3912
20-24	909,646	18,126,882 5.0182	432,471	16,723,085 2.5861	1,342,117	34,849,882 3.8511
25-29	3,703,019	46,983,508 7.8815	2,857,887	68,225,085 4.1889	6,560,906	115,208,593 5.6948
30-34	8,109,186	71,504,597 11.3408	7,048,529	117,740,609 5.9865	15,157,715	189,245,206 8.0096
35-39	14,355,237	94,618,566 15.1717	12,541,158	165,980,353 7.5558	26,896,395	260,598,919 10.3210
40-44	21,177,905	113,710,964 18.6243	14,913,052	173,338,977 8.6034	36,090,957	287,049,941 12.5731
45-49	22,707,007	111,428,858 20.3780	12,599,928	136,383,230 9.2386	35,306,935	247,812,088 14.2475
50-54	15,983,270	79,526,827 20.0980	8,552,239	92,041,542 9.2917	24,535,509	171,568,369 14.3007
55-59	11,297,281	56,553,172 19.9764	5,459,993	58,489,662 9.3350	16,757,274	115,042,834 14.5661
60-64	6,283,307	31,120,502 20.1902	2,256,524	26,973,556 8.3657	8,539,831	58,094,058 14.7000
65-69	1,932,663	10,332,102 18.7054	564,252	7,656,314 7.3698	2,496,915	17,988,416 13.8807
70-74	40,148	1,735,447 2.3134	0	1,615,254 .0000	40,148	3,350,701 1.1982
75-79	0	117,280 .0000	0	23,239 .0000	0	140,519 .0000
80-84	0	0 .0000	0	0 .0000	0	0 .0000
85+	0	0 .0000	0	0 .0000	0	0 .0000
TOTAL	106,509,893	636,151,991 16.7428	67,229,417	865,408,439 7.7685	173,739,310	1,501,560,430 11.5706

TABLE B: Present Value of Future Preretirement Death Benefits by Service Groups as a Percent of Earnings
Current Plan - All Participants - Actuarial Valuation Assumptions

Service Group	M A L E		F E M A L E		A L L	
	PVFB	Earnings Percentage	PVFB	Earnings Percentage	PVFB	Earnings Percentage
0	3,295,152	57,882,263 5.6929	2,444,948	86,422,209 2.8291	5,740,100	144,304,472 3.9778
1	2,602,439	29,994,808 8.6763	1,527,436	36,946,310 4.1342	4,129,875	66,941,118 6.1694
2	5,323,488	45,010,150 11.8273	3,991,911	71,193,645 5.6071	9,315,399	116,203,795 8.0164
3	6,052,181	42,870,818 14.1173	4,338,893	65,366,086 6.6378	10,391,074	108,236,904 9.6003
4	4,780,427	29,271,205 16.3315	2,627,122	34,285,631 7.6625	7,407,549	63,556,836 11.6550
00-04	22,053,687	205,029,244 10.7564	14,950,310	294,215,881 5.0746	36,983,997	499,243,125 7.4080
05-09	19,872,460	95,246,781 20.8642	12,433,915	128,615,438 9.6675	32,306,375	223,862,219 14.4314
10-14	30,328,286	137,959,602 21.9835	20,266,019	200,937,197 10.0857	50,594,305	338,896,799 14.9291
15-19	18,304,487	93,834,867 19.5071	12,176,632	132,758,601 9.1720	30,481,119	226,593,468 13.4519
20-24	9,712,320	54,950,141 17.6748	5,395,899	69,972,727 7.7114	15,108,219	124,922,868 12.0540
25-29	4,780,969	37,351,046 12.8001	1,795,947	33,654,921 5.3364	6,576,916	71,005,967 9.2625
30-34	1,162,008	9,993,148 11.6280	185,919	4,561,101 4.0762	1,347,927	14,554,249 9.2614
35-39	291,143	1,764,222 16.5026	33,300	555,847 5.9909	324,443	2,320,069 13.9842
40+	4,533	22,940 19.7602	11,476	138,726 8.2724	16,009	161,666 9.9025
TOTAL	106,509,893	636,151,991 16.7428	67,229,417	865,408,439 7.7685	173,739,310	1,501,560,430 11.5706

DISTRIBUTION D10

Teachers Retirement System of Louisiana
Distributions as of 07-01-1993

Table A: Present Value of Future Preretirement Death Benefits by Age Groups as a Percent of Earnings
Current Plan - All Participants - Actuarial Valuation Assumptions

Age Group	M A L E		F E M A L E		A L L	
	PVFB	Earnings Percentage	PVFB	Earnings Percentage	PVFB	Earnings Percentage
00-19	0	0	1,400	33,673	1,400	33,673
20-24	327,679	3,390,232	1,159,020	23,513,520	1,486,699	26,903,752
25-29	2,853,385	23,133,525	6,679,012	103,555,856	9,532,397	126,689,381
30-34	4,544,868	31,106,426	10,399,725	137,938,627	14,944,593	169,045,053
35-39	9,170,897	54,698,123	18,347,313	226,447,056	27,518,210	281,145,179
40-44	16,452,575	92,792,867	27,333,431	333,262,030	43,786,006	426,054,897
45-49	20,189,293	121,448,214	22,380,232	299,911,317	42,569,525	421,359,531
50-54	14,130,950	115,667,187	12,267,585	220,657,536	26,398,535	336,324,723
55-59	6,518,139	70,474,184	5,345,348	121,384,446	11,863,487	191,858,630
60-64	3,155,346	37,332,960	2,163,393	55,161,448	5,318,739	92,494,408
65-69	831,910	11,671,142	499,593	14,743,309	1,331,503	26,414,451
70-74	0	2,762,921	0	2,376,963	0	5,139,884
75-79	0	108,174	0	113,744	0	221,918
80-84	0	0	0	0	0	0
85+	0	0	0	0	0	0
TOTAL	78,175,042	564,585,955	106,576,052	1,539,099,525	184,751,094	2,103,685,480

TABLE B: Present Value of Future Preretirement Death Benefits by Service Groups as a Percent of Earnings
Current Plan - All Participants - Actuarial Valuation Assumptions

Service Group	M A L E		F E M A L E		A L L	
	PVFB	Earnings Percentage	PVFB	Earnings Percentage	PVFB	Earnings Percentage
0	514,522	7,112,956	985,348	26,931,243	1,499,870	34,044,199
1	1,615,653	21,267,794	3,191,044	77,773,514	4,806,697	99,041,308
2	2,018,523	22,688,514	4,272,382	90,626,509	6,290,905	113,312,023
3	2,496,550	23,323,593	3,536,360	66,054,043	6,033,110	89,377,636
4	2,062,634	18,576,304	4,550,946	77,810,430	6,613,580	96,386,734
00-04	8,707,882	92,966,161	16,536,280	339,195,739	25,244,162	432,161,900
05-09	10,668,378	79,110,321	19,242,998	271,929,964	29,911,376	351,040,285
10-14	14,127,897	88,646,058	21,587,832	270,948,083	35,715,729	359,594,141
15-19	15,937,518	98,221,475	22,793,886	282,289,744	38,731,404	380,511,219
20-24	14,577,113	94,415,268	16,249,408	212,102,799	30,826,521	306,518,067
25-29	10,634,448	80,490,023	7,904,890	121,726,924	18,539,338	202,216,947
30-34	2,897,204	24,982,782	1,768,994	31,795,394	4,666,198	56,778,176
35-39	573,019	4,911,269	435,890	7,679,061	1,008,909	12,590,330
40+	51,583	842,598	55,874	1,431,817	107,457	2,274,415
TOTAL	78,175,042	564,585,955	106,576,052	1,539,099,525	184,751,094	2,103,685,480

Section E - Comparison of PreRetirement Death Benefits

Compare the costs of the state and benefits to the employee of the existing in-service survivor retirement benefit and CNA life policy with the death benefits of the hypothetical "standard" plan. Present options and make recommendations.

Sections

Cost Comparison of In-Service Death Benefit Provisions

Benefit Comparison of In-Service Death Benefit Provisions

Cost Comparison of In-Service Death Benefit Provisions

We compared the cost of the in-service preretirement death benefits described in Section C with the costs of the current plan in section D. We did not include costs of the CNA policy because we did not have a breakdown between inactive and active premiums. Please refer to the *Introduction for the actuarial methodology and definitions* and *Appendix 1 for the actuarial assumptions*. Cost comparisons of the "2 X Pay" and the current plans in total are shown in Exhibit E-1. Cost comparisons of the "40,000" and the current plans in total are shown in Exhibit E-2. In all respects, the costs of the Current program are greater than the costs of either of the alternatives described in Section C.

Comparing the "pension funding", the cost of the current plan is 0.74% to 0.94% of payroll, while the cost of the "2 X pay" plan ranges from 0.48% of payroll to 0.62% of payroll. If the benefit of the "2 X pay" were increased so that the pension funding costs were similar to the current structure, the benefit would be increased to approximately 3 times Pay.

Comparing the "1 year term cost", the cost of the current plan is 0.70% to 0.90% of payroll, while the cost of the "2 X pay" plan ranges from 0.46% of payroll to 0.60% of payroll and the cost of the "40,000" plan ranges from 0.31% of payroll to 0.42% of payroll. If the benefit of the "2 X pay" were increased so that the 1 year term costs were similar to the current structure, the benefit again would be increased to approximately 3 times pay. If the benefit of the "40,000" were increased so that the 1 year term costs were similar to the current structure, the benefit would be increased to approximately \$88,000.

Cost comparisons of the "2 X Pay" and the current plan with respect to the LASERS are shown in Exhibit E-3. From this exhibit we derived that if the "2 X Pay" benefit was increased so that the costs were similar to the current LASER structure, the benefit would be increased to approximately 3.75 times pay.

Cost comparisons of the "2 X Pay" and the current plan with respect to the Teachers' Retirement System are shown in Exhibit E-4. From this exhibit we derived that if the "2 X Pay" benefit was increased so that the costs were similar to the current Teachers' Retirement System structure, the benefit would be increased to approximately 2.5 times pay.

Cost comparisons of the "40,000" and the current plan with respect to the LASERS are shown in Exhibit E-5. From this exhibit we derived that if the "40,000" benefit was increased so that the 1 year term cost was similar to the current LASER structure, the benefit would be increased to approximately \$97,000.

Cost comparisons of the "40,000" and the current plan with respect to the Teachers' Retirement System are shown in Exhibit E-6. From this exhibit we derived that if the "40,000" benefit was

increased so that the 1 year term cost was similar to the current Teachers' Retirement System structure, the benefit would be increased to approximately \$80,000.

We recommend that if either the "2 X pay" plan or the "40,000" plan is adopted that as a minimum, the pension plan provide for a return of employee contributions in the event of death while in service. The "1 year term cost" of this benefit is between 0.16% to 0.20% of payroll and the pension funding cost is 0.19% to 0.24%. A breakdown of the cost between the LASERS and the Teachers' Retirement System is shown in Exhibit 7.

There is another alternative that should be considered. One of the findings of the preretirement death benefit survey in Section B of our report was that almost all of the defined benefit pension plans provided a *qualified preretirement joint and survivor annuity (QPSA)* to the spouse in the event of death of the employee prior to retirement. If the pension plan was amended to provide for a QPSA with an actuarial reduction for payment commencing before 65, the "pension funding" cost would be between approximately 0.19% to 0.24% of payroll and the "1 year term cost" would be between approximately 0.18% to 0.23% of payroll.

Benefit Comparison of In-Service Death Benefit Provisions

We compared the present value of future benefits of the in-service preretirement death benefits described in Section C with the present value of future benefits of the current plan in section D for different age/service groupings of the participants. We also compared the one year term cost of the in-service preretirement death benefits described in Section C with the one year term cost of the current plan in section D for different age/service groupings of the participants. Please refer to the Introduction for the actuarial methodology and definitions and Appendix 1 for the actuarial assumptions. For purposes of these comparisons we added the value of the return of employee contributions. The value of the return of employee contribution plus the "Two times pay" combination under the actuarial valuation assumptions is shown as a percent of pay is shown in Distribution 8 for the LASERS and Distribution 9 for the Teachers' Retirement System.

Distributions E10 - E16 compare the one year term costs. Distributions E17 -E25 compare the present value of future benefits.

Distribution E10, for example, is an age/service distribution of the one year term cost of the "two X pay" for the LASERS using the alternative assumptions. On the average the one year term cost of the "two times pay" plan is 71% of the current plan for both males and females. For ages under 30 and for years of service less than five, the "two times pay" plan represents a substantial increase.

Distribution E20, for example, is an age/service distribution of the present value of future benefits of the "40,000" plan for the LASERS using the current actuarial assumptions. On the average the present value of the "40,000" plan is 44% of the current plan. None of the participants have a greater benefit under the "40,000" plan.

Distribution E21 is an age/service distribution of the present value of future benefits of the "40,000" plan for the LASERS using the alternative actuarial assumptions. On the average the present value of the "40,000" plan is 44% of the current plan. None of the participants have a greater benefit under the "40,000" plan.

Exhibit E1

State of Louisiana Retirement Systems Comparison of In-Service Death Benefit Provisions

	Current		2 X Pay		Difference	
<i>Number of Participants</i>	151,555		151,555		151,555	
<i>Compensation</i>	3,718,574,237		3,718,574,237		3,718,574,237	
Alternative Cost Measures Current Assumptions						
<i>Present Value of Future Benefits</i>	358,490,134		213,510,389		144,979,745	
<i>Present Value of Future Salary</i>	33,135,847,886		33,135,847,886		33,135,847,886	
<i>Accrued Liability</i>	212,672,434		123,576,582		89,095,852	
<i>1 Year Term Cost</i>	26,203,852	0.70%	17,158,842	0.46%	9,045,010	0.24%
<i>Aggregate Cost</i>	40,230,514	1.08%	23,960,583	0.64%	16,269,931	0.44%
<i>Unit Credit Normal Cost</i>	17,327,054	0.47%	11,944,502	0.32%	5,382,552	0.14%
<i>Amortization</i>	10,247,436	0.28%	5,954,430	0.16%	4,293,006	0.19%
<i>"Pension Funding"</i>	27,574,490	0.74%	17,898,932	0.48%	9,675,558	0.34%
Alternative Cost Measures Alternative Assumptions						
<i>Present Value of Future Benefits</i>	454,618,616		271,574,795		183,043,821	
<i>Present Value of Future Salary</i>	32,645,503,099		32,645,503,099		32,645,503,099	
<i>Accrued Liability</i>	269,882,132		157,363,566		112,518,566	
<i>1 Year Term Cost</i>	33,454,757	0.90%	22,242,132	0.60%	11,212,625	0.30%
<i>Aggregate Cost</i>	51,784,562	1.39%	30,934,461	0.83%	20,850,101	0.56%
<i>Unit Credit Normal Cost</i>	22,123,241	0.59%	15,409,891	0.41%	6,713,350	0.18%
<i>Amortization</i>	13,004,035	0.35%	7,582,426	0.20%	5,421,609	0.15%
<i>"Pension Funding"</i>	35,127,276	0.94%	22,992,317	0.62%	12,134,959	0.33%

Exhibit E2

**State of Louisiana Retirement Systems
Comparison of In-Service Death Benefit Provisions**

	Current		40,000		Difference		
Number of Participants	151,555		151,555		151,555		
Compensation	3,718,574,237		3,718,574,237		3,718,574,237		
 Alternative Cost Measures Current Assumptions							
Present Value of Future Benefits	358,490,134		101,056,278		257,433,856		
Present Value of Future Salary	33,135,847,886		33,135,847,886		33,135,847,886		
 1 Year Term Cost	 26,203,852	 0.70%	 11,683,916	 0.31%	 14,519,936	 0.39%	
Aggregate Cost	40,230,514	1.08%	11,340,747	0.30%	28,889,766	0.78%	
 Alternative Cost Measures Alternative Assumptions							
Present Value of Future Benefits	454,618,816		132,387,768		322,230,848		
Present Value of Future Salary	32,645,503,099		32,645,503,099		32,645,503,099		
 1 Year Term Cost	 33,454,757	 0.90%	 15,640,163	 0.42%	 17,814,594	 0.48%	
Aggregate Cost	51,784,562	1.39%	15,079,986	0.41%	36,704,575	0.99%	

Exhibit E3

Louisiana State Employees' Retirement System Comparison of In-Service Death Benefit Provisions

	Current		2 X Pay		Difference	
Number of Participants	66,943		66,943		66,943	
Compensation	1,548,407,194		1,548,407,194		1,548,407,194	
Alternative Cost Measures Current Assumptions						
Present Value of Future Benefits	173,739,189		77,061,804		96,677,385	
Present Value of Future Salary	12,467,371,446		12,467,371,446		33,135,847,886	
Accrued Liability	99,940,046		43,634,751		56,305,295	
1 Year Term Cost	12,909,811	0.83%	6,989,291	0.45%	5,920,520	0.38%
Aggregate Cost	21,577,845	1.39%	9,570,827	0.62%	12,007,018	0.78%
Unit Credit Normal Cost	9,337,729	0.60%	5,163,813	0.33%	4,173,916	0.27%
Amortization	4,815,524	0.31%	2,102,502	0.14%	2,713,022	0.18%
"Pension Funding"	14,153,253	0.91%	7,266,315	0.47%	6,886,938	0.44%
Alternative Cost Measures Alternative Assumptions						
Present Value of Future Benefits	213,995,221		95,937,845		118,057,376	
Present Value of Future Salary	12,314,640,036		12,314,640,036		12,314,640,036	
Accrued Liability	123,279,383		54,392,715		68,886,668	
1 Year Term Cost	16,033,783	1.04%	8,866,410	0.57%	7,167,373	0.46%
Aggregate Cost	26,907,140	1.74%	12,062,947	0.78%	14,844,193	0.96%
Unit Credit Normal Cost	11,575,157	0.75%	6,521,972	0.42%	5,053,185	0.33%
Amortization	5,940,110	0.38%	2,620,866	0.17%	3,319,244	0.21%
"Pension Funding"	17,515,267	1.13%	9,142,838	0.59%	8,372,429	0.54%

Exhibit E4

Teachers' Retirement System of Louisiana Comparison of In-Service Death Benefit Provisions

	Current		2 X Pay		Difference	
Number of Participants	84,612		84,612		84,612	
Compensation	2,170,167,043		2,170,167,043		2,170,167,043	
Alternative Cost Measures Current Assumptions						
Present Value of Future Benefits	184,750,945		136,448,585		48,302,360	
Present Value of Future Salary	20,668,476,440		20,668,476,440		33,135,847,886	
Accrued Liability	112,732,388		79,941,831		32,790,557	
1 Year Term Cost	13,294,041	0.61%	10,169,551	0.47%	3,124,490	0.14%
Aggregate Cost	19,398,644	0.89%	14,326,950	0.66%	5,071,694	0.23%
Unit Credit Normal Cost	7,989,325	0.37%	6,780,689	0.31%	1,208,636	0.06%
Amortization	5,431,912	0.25%	3,851,927	0.18%	1,579,984	0.07%
"Pension Funding"	13,421,237	0.62%	10,632,616	0.49%	2,788,620	0.13%
Alternative Cost Measures Alternative Assumptions						
Present Value of Future Benefits	240,623,395		175,636,950		64,986,445	
Present Value of Future Salary	20,330,863,063		20,330,863,063		20,330,863,063	
Accrued Liability	146,602,749		102,970,851		43,631,898	
1 Year Term Cost	17,420,974	0.80%	13,375,722	0.62%	4,045,252	0.19%
Aggregate Cost	25,684,741	1.18%	18,747,926	0.86%	6,936,815	0.32%
Unit Credit Normal Cost	10,548,084	0.49%	8,887,919	0.41%	1,660,165	0.08%
Amortization	7,063,926	0.33%	4,961,561	0.23%	2,102,365	0.10%
"Pension Funding"	17,612,010	0.81%	13,849,480	0.64%	3,762,530	0.17%

Exhibit E5

**Louisiana State Employees' Retirement System
Comparison of In-Service Death Benefit Provisions**

	Current		40,000		Difference	
Number of Participants	66,943		66,943		66,943	
Compensation	1,548,407,194		1,548,407,194		1,548,407,194	
Alternative Cost Measures Current Assumptions						
Present Value of Future Benefits	173,739,189		42,028,434		131,710,755	
Present Value of Future Salary	12,467,371,446		12,467,371,446		33,135,847,886	
1 Year Term Cost	12,909,811	0.83%	5,220,454	0.34%	7,689,357	0.50%
Aggregate Cost	21,577,845	1.39%	5,219,796	0.34%	16,358,050	1.06%
Alternative Cost Measures Alternative Assumptions						
Present Value of Future Benefits	213,995,221		53,272,292		160,722,929	
Present Value of Future Salary	12,314,640,036		12,314,640,036		12,314,640,036	
1 Year Term Cost	16,033,783	1.04%	6,782,337	0.44%	9,251,446	0.60%
Aggregate Cost	26,907,140	1.74%	6,698,304	0.43%	20,208,836	1.31%

Exhibit E6

**Teachers' Retirement System of Louisiana
Comparison of In-Service Death Benefit Provisions**

	Current		40,000		Difference	
Number of Participants	84,812		84,812		84,812	
Compensation	2,170,167,043		2,170,167,043		2,170,167,043	
Alternative Cost Measures Current Assumptions						
Present Value of Future Benefits	184,750,945		59,027,844		125,723,101	
Present Value of Future Salary	20,668,476,440		20,668,476,440		33,135,847,886	
1 Year Term Cost	13,294,041	0.61%	6,463,462	0.30%	6,830,579	0.31%
Aggregate Cost	19,398,644	0.89%	6,197,858	0.29%	13,200,786	0.61%
Alternative Cost Measures Alternative Assumptions						
Present Value of Future Benefits	240,623,395		79,115,476		161,507,919	
Present Value of Future Salary	20,330,863,063		20,330,863,063		20,330,863,063	
1 Year Term Cost	17,420,974	0.80%	8,857,826	0.41%	8,563,148	0.39%
Aggregate Cost	25,684,741	1.18%	8,444,983	0.39%	17,239,758	0.79%

Exhibit E7

State of Louisiana Retirement Systems
Return of Employee Contributions Death Benefit Provision

	Lasers		Teachers		Total	
Number of Participants	66,943		84,612		151,555	
Compensation	1,548,407,194		2,170,167,043		3,718,574,237	
Alternative Cost Measures						
Current Assumptions						
Present Value of Future Benefits	33,640,912		63,090,090		96,731,002	
Present Value of Future Salary	12,467,371,446		20,668,476,440		33,135,847,886	
Accrued Liability	19,005,588		36,916,562		55,922,150	
1 Year Term Cost	2,127,866	0.14%	3,847,879	0.18%	5,975,745	0.16%
Aggregate Cost	4,178,092	0.27%	6,624,389	0.31%	10,855,356	0.29%
Unit Credit Normal Cost	1,688,945	0.11%	2,681,709	0.12%	4,370,654	0.12%
Amortization	915,768	0.06%	1,778,792	0.08%	2,694,560	0.07%
"Pension Funding"	2,604,713	0.17%	4,460,501	0.21%	7,065,214	0.19%
Alternative Cost Measures						
Alternative Assumptions						
Present Value of Future Benefits	41,525,013		80,661,416		122,186,429	
Present Value of Future Salary	12,314,640,036		20,330,863,063		32,645,503,099	
Accrued Liability	23,495,093		47,252,286		70,747,379	
1 Year Term Cost	2,636,715	0.17%	4,992,497	0.23%	7,629,212	0.21%
Aggregate Cost	5,221,235	0.34%	8,610,001	0.40%	13,917,975	0.37%
	2,090,394	0.14%	3,465,247	0.16%	5,555,641	0.15%
	1,132,091	0.07%	2,276,810	0.10%	3,408,901	0.09%
	3,222,485	0.21%	5,742,057	0.26%	8,964,542	0.24%

DISTRIBUTION E8

Teachers Retirement System of Louisiana
Distributions as of 07-01-1993

TABLE A: Preretirement Death Benefits One Year Term Cost By Age Groups as a Percent of Earnings
Reduced Pension and Two Times Pay Death Benefit - All Participants - Actuarial Valuation Assumptions

Age Group	M A L L E			F E M A L L E			A L L L		
	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage
00-19	0	0	.0000	14	33,673	.0416	14	33,673	.0416
20-24	3,430	3,390,232	.1012	13,362	23,513,520	.0568	16,792	26,903,752	.0624
25-29	28,656	23,133,525	.1239	76,324	103,555,856	.0737	104,980	126,689,381	.0829
30-34	55,475	31,106,426	.1783	153,582	137,938,627	.1113	209,057	169,045,053	.1237
35-39	154,085	54,698,123	.2817	377,963	226,447,056	.1669	532,048	281,145,179	.1892
40-44	437,935	92,792,867	.4719	848,989	333,262,030	.2548	1,286,924	426,054,897	.3021
45-49	1,054,670	121,448,214	.8684	1,240,826	299,911,317	.4137	2,295,496	421,359,531	.5448
50-54	1,732,070	115,667,187	1.4975	1,476,377	220,657,536	.6691	3,208,447	336,324,723	.9540
55-59	1,600,470	70,474,184	2.2710	1,318,810	121,384,446	1.0865	2,919,280	191,858,630	1.5216
60-64	1,513,173	57,332,960	3.5175	984,358	55,161,448	1.7845	2,297,531	92,494,408	2.4840
65-69	708,846	11,671,142	6.0735	438,292	14,743,309	2.9728	1,147,138	26,414,451	4.3428
70-74	0	2,762,921	.0000	0	2,376,963	.0000	0	5,139,884	.0000
75-79	0	108,174	.0000	0	113,744	.0000	0	221,918	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	7,088,810	564,585,955	1.2556	6,928,897	1,539,099,525	.4502	14,017,707	2,103,685,480	.6663

TABLE B: Preretirement Death Benefits One Year Term Cost By Service Groups as a Percent of Earnings
Reduced Pension and Two Times Pay Death Benefit - All Participants - Actuarial Valuation Assumptions

Service Group	M A L L E			F E M A L L E			A L L L		
	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage
0	23,365	7,112,956	.3285	40,872	26,931,243	.1518	64,237	34,044,199	.1887
1	79,052	21,267,794	.3717	109,013	77,773,514	.1402	188,065	99,041,308	.1899
2	97,541	22,685,514	.4300	157,045	90,626,509	.1733	254,586	113,312,023	.2247
3	99,623	23,323,593	.4271	118,166	66,054,043	.1789	217,789	89,377,636	.2437
4	106,024	18,576,504	.5707	166,704	77,810,430	.2142	272,728	96,384,734	.2830
00-04	405,605	92,966,161	.4363	591,800	339,195,739	.1745	997,405	432,161,900	.2308
05-09	645,310	79,110,521	.8157	790,157	271,929,964	.2906	1,435,467	351,040,285	.4089
10-14	899,172	88,646,058	1.0143	1,104,136	270,948,083	.4075	2,003,308	359,594,141	.5571
15-19	1,142,513	98,221,475	1.1632	1,382,123	282,289,744	.4896	2,524,636	380,511,219	.6635
20-24	1,438,475	94,415,268	1.5236	1,406,291	212,102,799	.6630	2,844,766	306,518,067	.9281
25-29	1,676,722	80,490,023	2.0831	1,117,032	121,726,924	.9177	2,793,754	202,216,947	1.3816
30-34	683,240	24,982,782	2.7348	387,991	31,795,394	1.2203	1,071,231	56,778,176	1.8867
35-39	181,769	4,911,269	3.7011	129,185	7,679,061	1.6823	310,954	12,590,330	2.4698
40+	16,004	842,598	1.8994	20,182	1,431,817	1.4095	36,186	2,274,415	1.5910
TOTAL	7,088,810	564,585,955	1.2556	6,928,897	1,539,099,525	.4502	14,017,707	2,103,685,480	.6663

DISTRIBUTION E9

Teachers Retirement System of Louisiana
Distributions as of 07-01-1993

TABLE A: Preretirement Death Benefits One Year Term Cost By Age Groups as a Percent of Earnings
Reduced Pension and Two Times Pay Death Benefit - All Participants - Actuarial Valuation Assumptions

Age Group	1YT Cost	Earnings	Percentage	F	E	M	A	L	E	Percentage	1YT Cost	Earnings	Percentage
				14	33,673	23,513,520	103,535,856	137,938,827	226,447,056	333,262,030	299,911,317	336,324,723	426,054,897
00-19	0	0	.0000										
20-24	3,430	3,390,232	.1012	13,362	23,513,520						16,792	26,903,752	
25-29	28,656	23,133,525	.1239	76,324	103,535,856						104,980	126,689,381	
30-34	55,475	31,106,426	.1783	153,582	137,938,827						209,057	169,045,053	
35-39	154,085	54,698,123	.2817	377,963	226,447,056						532,048	281,145,179	
40-44	437,935	92,792,867	.4719	848,989	333,262,030						1,286,924	426,054,897	
45-49	1,054,670	121,448,214	.8684	1,240,826	299,911,317						2,295,496	421,359,531	
50-54	1,732,070	115,667,187	1.4975	1,476,377	220,637,536						3,208,447	336,324,723	
55-59	1,600,470	70,474,184	2.2710	1,318,810	121,394,446						2,919,280	191,858,630	
60-64	1,313,173	37,332,960	3.5175	984,358	55,161,448						2,297,531	92,494,408	
65-69	708,846	11,671,142	6.0735	438,292	14,743,309						1,147,138	26,614,451	
70-74	0	2,762,921	.0000	0	2,376,963						0	5,139,884	
75-79	0	108,174	.0000	0	113,744						0	221,918	
80-84	0	0	.0000	0	0						0	0	
85+	0	0	.0000	0	0						0	0	
TOTAL	7,088,810	564,585,955	1.2556	6,928,897	1,539,099,525						14,017,707	2,103,685,480	

TABLE B: Preretirement Death Benefits One Year Term Cost By Service Groups as a Percent of Earnings
Reduced Pension and Two Times Pay Death Benefit - All Participants - Actuarial Valuation Assumptions

Service Group	1YT Cost	Earnings	Percentage	F	E	M	A	L	E	Percentage	1YT Cost	Earnings	Percentage
				40,872 <th>26,931,243 <th>77,773,514 <th>90,626,509 <th>66,054,043 <th>77,810,430 <th>339,195,739 <th>271,929,964 <th>359,594,141 <th>359,594,141 </th></th></th></th></th></th></th></th></th>	26,931,243 <th>77,773,514 <th>90,626,509 <th>66,054,043 <th>77,810,430 <th>339,195,739 <th>271,929,964 <th>359,594,141 <th>359,594,141 </th></th></th></th></th></th></th></th>	77,773,514 <th>90,626,509 <th>66,054,043 <th>77,810,430 <th>339,195,739 <th>271,929,964 <th>359,594,141 <th>359,594,141 </th></th></th></th></th></th></th>	90,626,509 <th>66,054,043 <th>77,810,430 <th>339,195,739 <th>271,929,964 <th>359,594,141 <th>359,594,141 </th></th></th></th></th></th>	66,054,043 <th>77,810,430 <th>339,195,739 <th>271,929,964 <th>359,594,141 <th>359,594,141 </th></th></th></th></th>	77,810,430 <th>339,195,739 <th>271,929,964 <th>359,594,141 <th>359,594,141 </th></th></th></th>	339,195,739 <th>271,929,964 <th>359,594,141 <th>359,594,141 </th></th></th>	271,929,964 <th>359,594,141 <th>359,594,141 </th></th>	359,594,141 <th>359,594,141 </th>	359,594,141
0	23,365	7,112,956	.3285										
1	79,052	21,267,794	.3717	109,013	77,773,514						188,065	99,041,308	
2	97,541	22,685,514	.4300	157,045	90,626,509						254,586	113,312,023	
3	99,623	23,323,593	.4271	118,166	66,054,043						217,789	89,377,636	
4	106,024	18,576,304	.5707	166,704	77,810,430						272,728	96,386,734	
00-04	405,605	92,966,161	.4363	591,800	339,195,739						997,405	432,161,900	
05-09	645,310	79,110,321	.8157	790,157	271,929,964						1,435,467	351,040,285	
10-14	899,172	88,646,058	1.0143	1,104,136	270,948,083						2,003,308	359,594,141	
15-19	1,142,513	98,221,475	1.1632	1,382,123	282,289,744						2,524,636	380,511,219	
20-24	1,438,475	94,415,268	1.5236	1,406,291	212,102,799						2,644,766	306,518,067	
25-29	1,676,722	80,490,023	2.0831	1,117,032	121,726,924						2,793,754	202,216,947	
30-34	683,240	24,982,782	2.7348	387,991	31,795,394						1,071,231	56,778,176	
35-39	181,769	4,911,269	3.7011	129,185	7,679,061						310,954	12,590,330	
40+	16,004	842,598	1.8994	20,182	1,431,817						36,186	2,274,415	
TOTAL	7,088,810	564,585,955	1.2556	6,928,897	1,539,099,525						14,017,707	2,103,685,480	

DISTRIBUTION E10

Louisiana State Employees' Retirement System
Distributions as of 07-01-1993

TABLE A: Comparison of Preretirement Death Benefit One Year Term Costs By Age Groups
Reduced Pension and Two Times Pay Death Benefit Compared to Current Plan - All Participants - Actuarial Valuation Assumptions

Age Group	M A L L E			F E M A L E			A L L		
	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio
00-19	330	0	.0000	97	0	.0000	427	0	.0000
20-24	17,897	992	18.0413	9,406	235	40.0255	27,303	1,227	22.2518
25-29	59,590	33,794	1.7633	50,554	22,207	2.2765	110,144	56,001	1.9668
30-34	132,093	176,814	.7471	130,726	174,664	.7484	262,819	351,478	.7478
35-39	259,469	418,729	.6197	267,496	424,884	.6296	526,965	843,613	.6247
40-44	516,795	870,482	.5937	419,811	665,213	.6311	936,606	1,535,695	.6099
45-49	915,106	1,490,332	.6140	534,643	812,614	.6579	1,449,749	2,302,946	.6295
50-54	1,139,294	1,649,461	.6907	574,114	744,315	.7713	1,713,408	2,393,776	.7158
55-59	1,217,627	1,685,805	.7223	590,256	733,131	.7837	1,807,883	2,438,936	.7413
60-64	1,014,410	1,390,956	.7293	453,975	553,310	.8205	1,468,385	1,944,266	.7552
65-69	586,314	774,218	.7573	214,222	246,950	.8675	800,536	1,021,148	.7840
70-74	12,714	20,632	.6162	0	0	.0000	12,714	20,632	.6162
75-79	0	0	.0000	0	0	.0000	0	0	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	5,871,639	8,512,215	.6898	3,245,300	4,397,503	.7380	9,116,939	12,909,718	.7062

TABLE A: Comparison of Preretirement Death Benefits One Year Term Costs By Service Groups
Reduced Pension and Two Times Pay Death-Benefit Compared to Current Plan - All Participants - Actuarial Valuation Assumptions

Service Group	M A L L E			F E M A L E			A L L		
	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio
0	253,691	16,044	15.8122	171,000	1,692	101.0638	424,691	17,736	23.9451
1	125,491	4,453	28.1812	75,436	431	175.0255	200,927	4,884	41.1398
2	202,700	28,443	7.1265	133,666	3,087	43.2996	336,366	31,530	10.6681
3	193,993	9,073	21.3766	132,220	389	339.8972	326,213	9,464	34.4688
4	157,572	91,164	1.7284	76,403	47,825	1.5976	233,975	138,989	1.6834
00-04	933,447	169,179	6.2572	588,725	53,424	11.0199	1,522,172	202,603	7.5131
05-09	813,923	975,888	.8340	415,857	555,807	.7482	1,229,780	1,531,695	.8029
10-14	1,361,562	2,544,610	.5351	812,075	1,454,155	.5585	2,173,637	3,998,765	.5436
15-19	1,021,824	1,854,829	.5509	669,659	1,135,944	.5895	1,691,483	2,990,773	.5656
20-24	784,471	1,365,169	.5746	446,358	719,079	.6207	1,230,829	2,084,248	.5905
25-29	659,637	1,118,812	.5896	260,043	399,914	.6502	919,680	1,518,726	.6056
30-34	238,911	398,466	.5996	43,997	64,109	.6863	282,908	462,575	.6116
35-39	57,140	103,703	.5510	6,730	11,657	.5773	63,870	115,360	.5537
40+	724	1,559	.4644	1,856	3,414	.5436	2,580	4,973	.5188
TOTAL	5,871,639	8,512,215	.6898	3,245,300	4,397,503	.7380	9,116,939	12,909,718	.7062

DISTRIBUTION E11

Louisiana State Employees' Retirement System
Distributions as of 07-01-1993

TABLE A: Comparison of Preretirement Death Benefit One Year Term Costs By Age Groups
Reduced Pension and Two Times Pay Death Benefit Compared to Current Plan - All Participants - Alternative Actuarial Assumptions

Age Group	M A L E			F E M A L E			A L L		
	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio
00-19	1,081	0	.0000	221	0	.0000	1,302	0	.0000
20-24	53,332	2,808	18.9929	18,709	448	41.7612	72,041	3,256	22.1256
25-29	127,828	68,385	1.8692	78,498	33,088	2.3724	206,326	101,473	2.0333
30-34	191,247	252,603	.7571	174,585	232,211	.7518	345,832	484,814	.7146
35-39	308,494	495,262	.6229	393,784	625,668	.6294	702,278	1,120,930	.6265
40-44	567,758	950,013	.5976	719,192	1,136,437	.6328	1,286,950	2,086,450	.6168
45-49	956,074	1,544,973	.6188	888,805	1,344,464	.6611	1,844,879	2,889,437	.6385
50-54	1,178,131	1,687,758	.6980	904,606	1,165,363	.7762	2,082,737	2,853,121	.7300
55-59	1,353,054	1,854,674	.7295	880,512	1,117,465	.7880	2,233,566	2,972,139	.7515
60-64	1,184,111	1,612,570	.7343	615,748	749,974	.8210	1,799,859	2,362,544	.7618
65-69	636,044	838,954	.7581	258,433	299,547	.8627	894,477	1,138,501	.7857
70-74	13,101	21,356	.6135	0	0	.0000	13,101	21,356	.6135
75-79	0	0	.0000	0	0	.0000	0	0	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	6,570,255	9,329,356	.7043	4,933,093	6,704,665	.7358	11,503,348	16,034,021	.7174

TABLE A: Comparison of Preretirement Death Benefits One Year Term Costs By Service Groups
Reduced Pension and Two Times Pay Death Benefit Compared to Current Plan - All Participants - Alternative Actuarial Assumptions

Service Group	M A L E			F E M A L E			A L L		
	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio
0	313,106	17,222	18.1806	263,718	2,707	97.4208	576,824	19,929	28.9440
1	155,881	5,109	30.5111	117,523	678	173.3378	273,404	5,787	47.2445
2	243,900	30,669	7.9527	208,648	4,821	43.2790	452,548	35,490	12.7314
3	232,197	10,296	22.5522	202,885	629	322.5517	435,082	10,925	39.8244
4	182,729	109,739	1.6651	117,934	73,617	1.6020	300,663	183,356	1.6398
00-04	1,127,813	173,055	6.5178	910,708	82,452	11.0453	2,038,521	255,487	7.9790
05-09	921,711	1,123,873	.8201	628,042	843,517	.7446	1,549,753	1,967,390	.7877
10-14	1,514,648	2,814,241	.5382	1,223,979	2,201,290	.5560	2,738,627	5,015,531	.5460
15-19	1,119,816	2,015,750	.5555	1,017,352	1,742,569	.5838	2,137,168	3,758,319	.5686
20-24	852,333	1,466,843	.5811	681,935	1,110,168	.6143	1,534,268	2,577,011	.5954
25-29	706,742	1,185,018	.5964	394,342	609,320	.6472	1,101,084	1,794,338	.6136
30-34	262,468	433,469	.6055	65,069	94,894	.6857	327,537	528,363	.6199
35-39	63,891	115,346	.5539	9,169	15,862	.5780	73,060	131,208	.5568
40+	63,833	1,781	4.677	2,497	4,593	.5437	3,330	6,374	.5224
TOTAL	6,570,255	9,329,356	.7043	4,933,093	6,704,665	.7358	11,503,348	16,034,021	.7174

DISTRIBUTION E12

Louisiana State Employees' Retirement System
Distributions as of 07-01-1993

TABLE A: Comparison of Preretirement Death Benefit One Year Term Costs By Age Groups
Reduced Pension and \$40,000 Death Benefit Compared to Current Plan - All Participants - Actuarial Valuation Assumptions

Age Group	M A L E			F E M A L E			A L L		
	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio
00-19	330	0	.0000	97	0	.0000	427	0	.0000
20-24	17,897	992	18.0413	9,406	235	40.0255	27,303	1,227	22.2518
25-29	59,590	33,794	1.7633	50,554	22,207	2.2765	110,144	56,001	1.9668
30-34	132,093	176,814	.7471	130,726	174,664	.7484	262,819	351,478	.7478
35-39	259,469	418,729	.6197	267,496	424,884	.6296	526,965	843,613	.6247
40-44	516,795	870,482	.5937	419,811	665,213	.6311	936,606	1,535,695	.6099
45-49	915,106	1,490,332	.6140	534,643	812,614	.6579	1,449,749	2,302,946	.6295
50-54	1,139,294	1,649,461	.6907	574,114	744,315	.7713	1,713,408	2,393,776	.7158
55-59	1,217,627	1,685,805	.7223	590,256	753,131	.7837	1,807,883	2,438,936	.7413
60-64	1,014,410	1,390,956	.7293	453,975	553,310	.8205	1,468,385	1,944,266	.7552
65-69	586,314	774,218	.7573	214,222	246,930	.8675	800,536	1,021,148	.7840
70-74	12,714	20,632	.6162	0	0	.0000	12,714	20,632	.6162
75-79	0	0	.0000	0	0	.0000	0	0	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	5,871,639	8,512,215	.6898	3,245,300	4,397,503	.7380	9,116,939	12,909,718	.7062

TABLE A: Comparison of Preretirement Death Benefits One Year Term Costs By Service Groups
Reduced Pension and \$40,800 Death Benefit Compared to Current Plan - All Participants - Actuarial Valuation Assumptions

Service Group	M A L E			F E M A L E			A L L		
	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio
0	253,691	16,044	15.8122	171,000	1,692	101.0638	424,691	17,736	23.9451
1	125,491	4,453	28.1812	75,436	431	175.0255	200,927	4,884	41.1398
2	202,700	28,443	7.1265	133,866	3,087	43.2996	336,366	31,530	10.6681
3	193,993	9,075	21.5766	132,220	389	339.8972	326,213	9,464	34.4688
4	157,572	91,164	1.7284	76,403	47,825	1.5976	233,975	138,989	1.6834
00-04	933,447	149,179	6.2572	588,725	53,424	11.0199	1,522,172	202,603	7.5131
05-09	813,923	975,888	.8340	415,857	555,807	.7482	1,229,780	1,531,695	.8029
10-14	1,361,562	2,544,610	.5351	812,075	1,454,155	.5585	2,173,637	3,998,765	.5436
15-19	1,021,824	1,854,829	.5509	665,659	1,135,944	.5895	1,691,483	2,990,773	.5656
20-24	784,471	1,365,169	.5746	446,358	719,079	.6207	1,230,829	2,084,248	.5905
25-29	659,637	1,118,812	.5896	260,043	399,914	.6502	919,680	1,518,726	.6056
30-34	238,911	398,466	.5996	43,997	64,109	.6863	281,908	462,575	.6116
35-39	57,140	103,703	.5510	6,730	11,657	.5773	63,870	115,360	.5537
40+	724	1,559	.4644	1,856	3,414	.5436	2,580	4,973	.5188
TOTAL	5,871,639	8,512,215	.6898	3,245,300	4,397,503	.7380	9,116,939	12,909,718	.7062

DISTRIBUTION E13

Louisiana State Employees' Retirement System
Distributions as of 07-01-1993

TABLE A: Comparison of Preretirement Death Benefit One Year Term Costs By Age Groups
Reduced Pension and \$40,000 Death Benefit Compared to Current Plan - All Participants - Alternative Actuarial Assumptions

Age Group	M A L L E		F E M A L E		A L L		Ratio
	Plan 1	Plan 2	Plan 1	Plan 2	Plan 1	Plan 2	
00-19	1,600	0	340	0	1,940	0	.0000
20-24	68,336	2,808	22,751	448	91,087	3,256	27.9751
25-29	139,204	68,385	80,119	33,088	219,323	101,473	2.1614
30-34	182,289	252,603	168,067	232,211	350,356	484,814	.7227
35-39	264,008	495,262	350,481	625,668	614,489	1,120,930	.5482
40-44	442,986	950,013	610,585	1,136,437	1,053,571	2,086,450	.5050
45-49	713,225	1,544,973	763,066	1,344,464	1,476,291	2,889,437	.5109
50-54	886,661	1,887,758	788,888	1,165,363	1,675,549	2,853,121	.5873
55-59	1,014,263	1,854,674	791,821	1,117,465	1,806,084	2,972,139	.6077
60-64	890,209	1,612,570	551,528	749,974	1,441,737	2,362,544	.6102
65-69	448,872	838,954	236,384	299,547	685,256	1,138,501	.6019
70-74	5,406	21,356	0	0	5,406	21,356	.2531
75-79	0	0	0	0	0	0	.0000
80-84	0	0	0	0	0	0	.0000
85+	0	0	0	0	0	0	.0000
TOTAL	5,057,059	9,329,356	4,364,030	6,704,665	9,421,089	16,034,021	.5876

TABLE A: Comparison of Preretirement Death Benefits One Year Term Costs By Service Groups
Reduced Pension and \$40,000 Death Benefit Compared to Current Plan - All Participants - Alternative Actuarial Assumptions

Service Group	M A L L E		F E M A L E		A L L		Ratio
	Plan 1	Plan 2	Plan 1	Plan 2	Plan 1	Plan 2	
0	332,027	17,222	293,481	2,707	625,508	19,929	31.3868
1	133,957	5,109	121,235	678	255,192	5,787	44.0975
2	207,660	30,669	201,355	4,821	409,015	35,490	11.5248
3	199,270	10,296	192,859	629	392,129	10,925	35.8928
4	151,464	109,739	110,857	73,617	262,321	183,356	1.4307
00-04	1,024,378	173,035	919,787	82,452	1,944,165	255,487	7.6096
05-09	752,092	1,123,873	575,690	843,517	1,327,782	1,967,390	.6749
10-14	1,149,401	2,814,241	1,090,027	2,201,290	2,239,428	5,015,531	.4465
15-19	811,628	2,015,750	851,036	1,742,569	1,662,664	3,758,319	.4424
20-24	605,839	1,466,843	555,214	1,110,168	1,161,053	2,577,011	.4505
25-29	506,105	1,185,018	313,647	609,320	819,752	1,794,338	.4569
30-34	169,317	433,469	50,126	94,894	219,443	528,363	.4153
35-39	37,605	115,346	7,101	15,862	44,706	131,208	.3407
40+	694	1,781	1,402	4,593	2,096	6,374	.3288
TOTAL	5,057,059	9,329,356	4,364,030	6,704,665	9,421,089	16,034,021	.5876

DISTRIBUTION E14

Teachers Retirement System of Louisiana
Distributions as of 07-01-1993

TABLE A: Comparison of Preretirement Death Benefit One Year Term Costs By Age Groups
Reduced Pension and Two Times Pay Death Benefit Compared to Current Plan - All Participants - Actuarial Valuation Assumptions

Age Group	M A L E			F E M A L E			A L L		
	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio
00-19	0	0	.0000	14	0	.0000	14	0	.0000
20-24	3,430	0	.0000	13,362	68	196.5000	16,792	68	246.9412
25-29	28,656	7,311	3.9196	76,324	32,163	2.3730	104,980	39,474	2.6595
30-34	55,475	46,343	1.1971	153,582	153,308	1.0018	209,057	199,651	1.0471
35-39	154,085	194,852	.7908	377,963	484,323	.7804	532,048	679,175	.7834
40-44	437,935	639,368	.6849	848,989	1,203,408	.7055	1,286,924	1,842,776	.6984
45-49	1,054,670	1,594,187	.6616	1,240,826	1,717,620	.7224	2,205,496	3,311,807	.6931
50-54	1,732,070	2,299,277	.7533	1,476,377	1,743,904	.8466	3,208,447	4,043,181	.7935
55-59	1,600,470	876,567	1.8258	1,318,810	663,989	1.9862	2,919,280	1,540,556	1.8950
60-64	1,313,173	655,647	2.0029	984,358	462,742	2.1272	2,297,531	1,118,389	2.0543
65-69	708,846	325,096	2.1804	438,292	193,192	2.2687	1,147,138	518,288	2.2133
70-74	0	0	.0000	0	0	.0000	0	0	.0000
75-79	0	0	.0000	0	0	.0000	0	0	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	7,088,810	6,638,648	1.0678	6,928,897	6,654,717	1.0412	14,017,707	13,293,365	1.0545

TABLE A: Comparison of Preretirement Death Benefits One Year Term Costs By Service Groups
Reduced Pension and Two Times Pay Death Benefit Compared to Current Plan - All Participants - Actuarial Valuation Assumptions

Service Group	M A L E			F E M A L E			A L L		
	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio
0	23,365	0	.0000	40,872	0	.0000	64,237	0	.0000
1	79,052	0	.0000	109,013	0	.0000	188,065	0	.0000
2	97,541	0	.0000	157,045	0	.0000	254,586	0	.0000
3	99,623	901106.9222	.118166	118,166	741596.8378	.1641327.9817	217,789	1641327.9817	.1327.9817
4	106,024	17,669	6.0006	166,704	38,249	4.3584	272,728	55,918	4.8773
00-04	405,605	17,759	22.8394	591,800	38,323	15.4424	997,405	56,082	17.7848
05-09	645,310	264,595	2.4389	790,157	483,157	1.6354	1,435,467	747,752	1.9197
10-14	899,172	769,957	1.1678	1,104,136	1,089,671	1.0133	2,003,308	1,859,628	1.0773
15-19	1,142,513	1,212,963	.9419	1,382,123	1,547,809	.8930	2,524,636	2,760,772	.9145
20-24	1,438,475	1,743,518	.8250	1,406,291	1,746,242	.8053	2,844,766	3,489,760	.8152
25-29	1,676,722	1,897,217	.8838	1,117,032	1,304,612	.8562	2,793,754	3,201,829	.8725
30-34	683,240	571,184	1.1962	387,991	323,981	1.1976	1,071,231	895,165	1.1967
35-39	181,769	144,978	1.2538	129,185	102,140	1.2648	310,954	247,118	1.2583
40+	16,004	16,477	.9713	20,182	18,782	1.0745	36,186	35,259	1.0263
TOTAL	7,088,810	6,638,648	1.0678	6,928,897	6,654,717	1.0412	14,017,707	13,293,365	1.0545

DISTRIBUTION E16

Teachers Retirement System of Louisiana
Distributions as of 07-01-1993

TABLE A: Comparison of Preretirement Death Benefit One Year Term Costs By Age Groups
Reduced Pension and \$40,000 Death Benefit Compared to Current Plan - All Participants - Actuarial Valuation Assumptions

Age Group	M A L L E			F E M A L E			A L L		
	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio
00-19	0	0	.0000	40	0	.0000	40	0	.0000
20-24	3,789	0	.0000	15,276	68,224,6471	0.0000	19,065	68,280,3676	0.0000
25-29	26,041	7,311	3.5619	76,255	32,163	2.3709	102,296	39,474	2.5915
30-34	46,369	46,343	1.0006	153,099	153,308	.9986	199,468	199,651	.9991
35-39	113,946	194,852	.5848	336,306	484,323	.6944	450,252	679,175	.6629
40-44	301,446	639,368	.4715	708,198	1,203,408	.5885	1,009,644	1,842,776	.5479
45-49	675,899	1,594,187	.4240	1,018,157	1,717,620	.5928	1,694,056	3,311,807	.5115
50-54	1,073,017	2,299,277	.4667	1,216,972	1,743,904	.6978	2,289,989	4,043,181	.5664
55-59	978,333	876,567	1.1161	1,135,975	663,989	1.7108	2,114,308	1,540,556	1.3724
60-64	783,635	655,647	1.1952	856,219	462,742	1.8503	1,639,854	1,118,389	1.4663
65-69	417,478	325,096	1.2842	375,645	193,192	1.9444	793,123	518,288	1.5303
70-74	0	0	.0000	0	0	.0000	0	0	.0000
75-79	0	0	.0000	0	0	.0000	0	0	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	4,419,953	6,638,648	.6658	5,892,142	6,654,717	.8854	10,312,095	13,293,365	.7757

TABLE A: Comparison of Preretirement Death Benefits One Year Term Costs By Service Groups
Reduced Pension and \$40,000 Death Benefit Compared to Current Plan - All Participants - Actuarial Valuation Assumptions

Service Group	M A L L E			F E M A L E			A L L		
	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio
0	28,769	0	.0000	69,739	0	.0000	98,508	0	.0000
1	61,643	0	.0000	111,934	0	.0000	173,577	0	.0000
2	66,000	0	.0000	0155,900	0	.0000	221,900	0	.0000
3	63,878	90,709,7556	0.7097556	118,241	741597,8514	0.15978514	182,119	1641110,4817	0.11104817
4	71,144	17,669	4.0265	167,235	38,249	4.3723	238,379	55,918	4.2630
00-04	291,434	17,759	16.4105	623,049	38,323	16.2578	914,483	56,082	16.3062
05-09	408,741	264,595	1.5448	778,031	483,157	1.6103	1,186,772	747,752	1.5871
10-14	553,391	769,957	.7187	1,005,676	1,089,671	.9229	1,559,067	1,859,628	.8384
15-19	717,080	1,212,963	.5912	1,186,033	1,547,809	.7663	1,903,113	2,760,772	.6893
20-24	888,242	1,743,518	.5095	1,106,648	1,746,242	.6337	1,994,890	3,489,760	.5716
25-29	1,030,245	1,897,217	.5430	825,605	1,304,612	.6328	1,855,850	3,201,829	.5796
30-34	420,360	571,184	.7359	273,675	323,981	.8447	694,035	895,165	.7753
35-39	105,331	144,978	.7265	82,971	102,140	.8123	188,302	247,118	.7620
40+	5,129	16,477	.3113	10,454	18,782	.5566	15,583	35,259	.4420
TOTAL	4,419,953	6,638,648	.6658	5,892,142	6,654,717	.8854	10,312,095	13,293,365	.7757

DISTRIBUTION E17

Teachers Retirement System of Louisiana
Distributions as of 07-01-1993

TABLE A: Comparison of Preretirement Death Benefit One Year Term Costs By Age Groups
Reduced Pension and \$40,000 Death Benefit Compared to Current Plan - All Participants - Alternative Actuarial Assumptions

Age Group	M A L E			F E M A L E			A L L		
	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio
00-19	0	0	.0000	95	0	.0000	95	0	.0000
20-24	10,883	0	.0000	28,917	130	222.4385	39,800	130	306.1538
25-29	55,954	14,190	3.9432	117,342	47,511	2.4698	173,296	61,701	2.8086
30-34	68,119	66,809	1.0196	201,707	203,768	.9899	269,826	270,577	.9972
35-39	135,284	229,807	.5887	503,118	715,900	.7028	638,402	945,707	.6751
40-44	330,852	696,360	.4751	1,215,285	2,053,756	.5917	1,546,137	2,750,116	.5622
45-49	705,996	1,644,577	.4293	1,694,617	2,822,664	.6004	2,400,613	4,467,241	.5374
50-54	1,108,709	2,333,373	.4752	1,915,406	2,706,185	.7078	3,024,115	5,039,558	.6001
55-59	1,083,702	952,521	1.1377	1,694,286	973,292	1.7408	2,777,988	1,925,813	1.4425
60-64	914,785	752,959	1.2149	1,161,907	621,837	1.8685	2,076,692	1,374,796	1.5105
65-69	453,293	351,384	1.2900	453,620	233,527	1.9425	906,913	584,911	1.5505
70-74	0	0	.0000	0	0	.0000	0	0	.0000
75-79	0	0	.0000	0	0	.0000	0	0	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	4,867,577	7,041,980	.6912	8,986,300	10,378,570	.8659	13,853,877	17,420,550	.7953

TABLE B: Comparison of Preretirement Death Benefits One Year Term Costs By Service Groups
Reduced Pension and \$40,000 Death Benefit Compared to Current Plan - All Participants - Alternative Actuarial Assumptions

Service Group	M A L E			F E M A L E			A L L		
	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio
0	37,531	0	.0000	110,304	0	.0000	147,835	0	.0000
1	78,422	0	.0000	178,426	0	.0000	256,848	0	.0000
2	81,398	0	.0000	243,342	0	.0000	324,740	0	.0000
3	78,643	107,734,9813	.7349813	186,407	1261479.4206	.186407	265,050	2331137.5536	.11375536
4	81,559	21,870	3.7293	259,473	59,490	4.3616	341,032	81,360	4.1916
00-04	357,553	21,977	16.2694	977,952	59,616	16.4042	1,335,505	81,593	16.3679
05-09	458,261	306,027	1.4975	1,194,504	747,542	1.5979	1,652,765	1,053,569	1.5687
10-14	607,459	831,415	.7306	1,535,474	1,700,403	.9030	2,142,933	2,531,818	.8464
15-19	780,781	1,286,763	.6068	1,828,041	2,477,514	.7379	2,608,822	3,764,277	.6930
20-24	957,122	1,818,927	.5262	1,698,700	2,781,741	.6107	2,653,822	4,600,668	.5773
25-29	1,114,032	1,977,790	.5633	1,229,924	1,980,528	.6210	2,343,956	3,958,318	.5922
30-34	466,793	617,834	.7555	396,795	471,276	.8420	863,588	1,089,110	.7929
35-39	119,852	162,999	.7353	111,856	136,525	.8193	231,708	299,524	.7736
40+	5,724	18,248	.3137	13,054	23,425	.5573	18,778	41,673	.4506
TOTAL	4,867,577	7,041,980	.6912	8,986,300	10,378,570	.8659	13,853,877	17,420,550	.7953

DISTRIBUTION E18

Louisiana State Employees' Retirement System
Distributions as of 07-01-1993

TABLE A: Comparison of Present Value of Future Preretirement Death Benefits by Age Groups
Reduced Pension and Two Times Pay Death Benefit Compared to Current Plan - All Participants - Actuarial Valuation Assumptions

Age Group	M A L E		F E M A L E		A L L		Ratio
	Plan 1	Plan 2	Plan 1	Plan 2	Plan 1	Plan 2	
00-19	6,683	11,224	2,027	3,384	8,710	14,608	.5962
20-24	520,730	909,646	257,989	432,471	778,719	1,342,117	.5802
25-29	2,072,229	3,703,019	1,692,188	2,857,887	3,764,417	6,560,906	.5738
30-34	4,460,636	8,109,186	4,120,245	7,048,529	8,580,881	15,157,715	.5661
35-39	8,114,609	14,355,237	7,648,897	12,541,158	15,783,506	26,896,395	.5861
40-44	12,360,037	21,177,905	9,545,997	14,913,052	21,906,034	36,090,957	.6070
45-49	13,964,958	22,707,007	8,632,711	12,599,928	22,597,669	35,306,935	.6400
50-54	10,425,564	15,983,270	6,326,083	8,552,239	16,751,647	24,535,509	.6828
55-59	7,824,654	11,297,281	4,247,731	5,459,993	12,072,385	16,757,274	.7204
60-64	4,583,679	6,283,307	1,907,679	2,256,524	6,491,358	8,539,831	.7601
65-69	1,462,563	1,932,663	499,394	564,252	1,961,957	2,496,915	.7858
70-74	25,580	40,148	0	0	25,580	40,148	.6371
75-79	0	0	0	0	0	0	.0000
80-84	0	0	0	0	0	0	.0000
85+	0	0	0	0	0	0	.0000
TOTAL	65,821,922	106,509,893	44,880,941	67,229,417	110,702,863	173,739,310	.6372

TABLE B: Comparison of Present Value of Future Preretirement Death Benefits by Service Groups
Reduced Pension and Two Times Pay Death Benefit Compared to Current Plan - All Participants - Actuarial Valuation Assumptions

Service Group	M A L E		F E M A L E		A L L		Ratio
	Plan 1	Plan 2	Plan 1	Plan 2	Plan 1	Plan 2	
0	2,803,766	3,295,152	2,200,987	2,444,948	5,004,753	5,740,100	.8719
1	2,008,132	2,602,439	1,277,841	1,527,436	3,285,973	4,129,875	.7957
2	3,848,116	5,323,488	2,995,692	3,991,911	6,843,808	9,315,399	.7347
3	4,105,243	6,052,181	3,094,398	4,338,893	7,189,641	10,391,074	.6919
4	3,104,652	4,780,427	1,786,262	2,627,122	4,890,914	7,407,549	.6603
00-04	15,869,909	22,053,687	11,345,180	14,930,310	27,215,089	36,983,997	.7359
05-09	12,074,831	19,872,460	7,996,488	12,433,915	20,071,319	32,306,375	.6213
10-14	17,540,597	30,328,286	12,767,144	20,266,019	30,307,741	50,594,305	.5990
15-19	10,721,046	18,304,487	7,840,466	12,176,632	18,561,512	30,481,119	.6090
20-24	5,811,307	9,712,320	3,551,883	5,395,899	9,363,190	15,108,219	.6197
25-29	2,919,860	4,780,969	1,219,907	1,795,947	4,139,767	6,576,916	.6294
30-34	720,567	1,162,008	133,699	185,919	854,266	1,347,927	.6338
35-39	161,641	291,143	19,659	33,300	181,300	324,443	.5588
40+	2,164	4,533	6,515	11,476	8,679	16,009	.5421
TOTAL	65,821,922	106,509,893	44,880,941	67,229,417	110,702,863	173,739,310	.6372

DISTRIBUTION E19

Louisiana State Employees' Retirement System
Distributions as of 07-01-1993

TABLE A: Comparison of Present Value of Future Preretirement Death Benefits by Age Groups
Reduced Pension and Two Times Pay Death Benefit Compared to Current Plan - All Participants - Alternative Actuarial Assumptions

Age Group	M A L E			F E M A L E			A L L		
	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio
00-19	10,526	15,035	.7001	3,323	5,174	.6422	13,849	20,209	.6853
20-24	700,486	1,119,092	.6259	400,071	651,326	.6142	1,100,557	1,770,418	.6216
25-29	2,437,928	4,215,382	.5783	2,557,543	4,303,458	.5943	4,995,471	8,518,840	.5864
30-34	4,895,780	8,823,744	.5548	6,299,257	10,795,155	.5835	11,195,037	19,618,899	.5706
35-39	8,682,188	15,229,853	.5701	11,842,690	19,504,762	.6072	20,524,878	34,734,615	.5909
40-44	13,103,624	22,232,626	.5894	14,725,649	23,088,125	.6378	27,829,273	45,320,751	.6141
45-49	14,832,352	23,892,375	.6208	12,832,604	18,832,679	.6846	27,725,956	42,725,054	.6489
50-54	11,225,975	17,075,342	.6574	9,087,485	12,261,802	.7411	20,313,460	29,337,144	.6924
55-59	8,586,494	12,304,540	.6978	5,759,969	7,406,501	.7777	14,346,463	19,711,041	.7278
60-64	4,933,701	6,729,943	.7331	2,364,633	2,807,680	.8422	7,298,334	9,537,623	.7652
65-69	1,517,086	2,003,220	.7573	577,538	657,222	.8788	2,094,624	2,660,442	.7873
70-74	25,308	40,049	.6319	0	0	.0000	25,308	40,049	.6319
75-79	0	0	.0000	0	0	.0000	0	0	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	70,951,448	113,681,201	.6241	66,511,762	100,313,884	.6630	137,463,210	213,995,085	.6424

TABLE B: Comparison of Present Value of Future Preretirement Death Benefits by Service Groups
Reduced Pension and Two Times Pay Death Benefit Compared to Current Plan - All Participants - Alternative Actuarial Assumptions

Service Group	M A L E			F E M A L E			A L L		
	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio
0	3,103,814	3,537,118	.8775	3,210,254	3,551,107	.9040	6,314,068	7,088,225	.8908
1	2,218,220	2,813,691	.7884	1,856,037	2,212,806	.8388	4,074,257	5,026,497	.8106
2	4,207,222	5,736,138	.7335	4,399,702	5,860,710	.7507	8,606,924	11,596,848	.7422
3	4,466,906	6,520,797	.6850	4,522,859	6,393,696	.7074	8,989,765	12,914,493	.6961
4	3,366,740	5,155,717	.6530	2,623,490	3,878,852	.6764	5,990,230	9,034,569	.6630
00-04	17,362,902	23,763,461	.7307	16,612,342	21,897,171	.7587	33,975,244	45,660,632	.7441
05-09	13,032,811	21,330,241	.6110	11,774,520	18,451,639	.6381	24,807,331	39,781,880	.6236
10-14	18,855,557	32,370,090	.5825	19,029,058	30,434,271	.6253	37,884,615	62,804,361	.6141
15-19	11,449,075	19,376,933	.5909	11,752,788	18,402,251	.6387	23,201,863	37,779,184	.6281
20-24	6,180,215	10,227,669	.6043	5,316,995	8,136,935	.6534	11,497,210	18,364,604	.6372
25-29	3,112,366	5,044,785	.6169	1,804,812	2,671,675	.6755	4,917,178	7,716,460	.6408
30-34	781,103	1,249,520	.6251	187,543	262,143	.7154	968,646	1,511,663	.6408
35-39	175,098	313,649	.5583	25,586	43,424	.5892	200,684	357,073	.5620
40+	2,321	4,853	.4783	8,118	14,375	.5647	10,439	19,228	.5429
TOTAL	70,951,448	113,681,201	.6241	66,511,762	100,313,884	.6630	137,463,210	213,995,085	.6424

DISTRIBUTION E20

Louisiana State Employees' Retirement System
Distributions as of 07-01-1993

TABLE A: Comparison of Present Value of Future Preretirement Death Benefits by Age Groups
Reduced Pension and \$40,000 Death Benefit Compared to Current Plan - All Participants - Actuarial Valuation Assumptions

Age Group	M A L E			F E M A L E			A L L		
	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio
00-19	5,144	11,224	.4583	1,582	3,384	.4675	6,726	14,608	.4604
20-24	365,158	909,646	.4014	177,184	432,471	.4097	542,342	1,342,117	.4041
25-29	1,367,375	3,705,019	.3693	1,081,806	2,857,887	.3785	2,449,181	6,560,906	.3733
30-34	2,933,334	8,109,186	.3617	2,754,545	7,048,529	.3908	5,687,879	15,157,715	.3752
35-39	5,240,849	14,355,237	.3651	5,113,438	12,541,158	.4077	10,354,287	26,896,395	.3850
40-44	7,929,319	21,177,905	.3744	6,449,764	14,913,052	.4338	14,399,083	36,090,957	.3990
45-49	9,038,548	22,707,007	.3981	6,167,122	12,599,928	.4895	15,205,670	35,306,935	.4307
50-54	7,086,612	15,983,270	.4434	4,801,826	8,552,239	.5615	11,888,438	24,535,509	.4845
55-59	5,442,909	11,297,281	.4818	3,420,057	5,459,993	.6264	8,862,966	16,757,274	.5289
60-64	3,244,423	6,283,307	.5164	1,581,551	2,256,524	.7009	4,825,974	8,539,831	.5651
65-69	994,385	1,932,663	.5145	442,005	564,252	.7833	1,436,390	2,496,915	.5753
70-74	10,515	40,148	.2619	0	0	.0000	10,515	40,148	.2619
75-79	0	0	.0000	0	0	.0000	0	0	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	43,658,571	106,509,893	.4099	32,010,880	67,229,417	.4761	75,669,451	173,739,310	.4355

TABLE B: Comparison of Present Value of Future Preretirement Death Benefits by Service Groups
Reduced Pension and \$40,000 Death Benefit Compared to Current Plan - All Participants - Actuarial Valuation Assumptions

Service Group	M A L E			F E M A L E			A L L		
	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio
0	1,923,441	3,295,152	.5837	1,521,057	2,444,948	.6231	3,444,498	5,740,100	.6001
1	1,232,353	2,602,439	.4735	866,021	1,527,436	.5670	2,098,374	4,129,875	.5081
2	2,408,758	5,323,488	.4525	1,962,315	3,991,911	.4916	4,371,073	9,315,399	.4692
3	2,620,027	6,052,181	.4329	2,064,152	4,338,893	.4757	4,684,179	10,391,074	.4508
4	1,997,752	4,780,427	.4179	1,199,126	2,627,122	.4564	3,196,878	7,407,549	.4316
00-04	10,182,331	22,053,687	.4617	7,612,671	14,930,310	.5099	17,795,002	36,983,997	.4812
05-09	8,166,281	19,872,460	.4109	5,622,777	12,433,915	.4522	13,789,058	32,306,375	.4268
10-14	11,779,423	30,328,286	.3884	9,416,421	20,266,019	.4646	21,195,844	50,594,305	.4189
15-19	7,116,106	18,304,487	.3889	5,713,313	12,176,632	.4692	12,831,419	30,481,119	.4210
20-24	3,866,078	9,712,320	.3981	2,619,158	5,395,899	.4854	6,485,236	15,108,219	.4293
25-29	2,005,208	4,780,969	.4194	911,127	1,795,947	.5073	2,916,335	6,576,916	.4434
30-34	450,595	1,162,008	.3878	97,940	185,919	.5268	548,535	1,347,927	.4069
35-39	88,880	291,143	.3053	14,169	33,300	.4255	103,069	324,443	.3176
40+	1,669	4,533	.3682	3,304	11,476	.2879	4,973	16,009	.3106
TOTAL	43,658,571	106,509,893	.4099	32,010,880	67,229,417	.4761	75,669,451	173,739,310	.4355

DISTRIBUTION E21

Louisiana State Employees' Retirement System
Distributions as of 07-01-1993

TABLE A: Comparison of Present Value of Future Preretirement Death Benefits by Age Groups
Reduced Pension and \$40,000 Death Benefit Compared to Current Plan - All Participants - Alternative Actuarial Assumptions

Age Group	M A L L E			F E M A L E			A L L		
	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio
00-19	9,437	15,035	.6277	2,716	5,174	.5249	12,153	20,209	.6014
20-24	543,841	1,119,092	.4860	278,569	651,326	.4277	822,410	1,770,418	.4645
25-29	1,680,724	4,215,382	.3987	1,628,522	4,303,458	.3784	3,309,246	8,518,840	.3885
30-34	3,262,538	8,823,744	.3697	4,197,144	10,795,155	.3898	7,459,682	19,618,899	.3802
35-39	5,626,066	15,229,853	.3694	7,958,732	19,504,762	.4080	13,584,798	34,734,615	.3911
40-44	8,404,167	22,232,626	.3780	10,069,764	23,088,125	.4361	18,473,931	45,320,751	.4076
45-49	9,585,122	23,892,375	.4012	9,282,655	18,832,679	.4929	18,867,777	42,725,054	.4416
50-54	7,625,258	17,075,342	.4466	6,947,363	12,261,802	.5666	14,572,621	29,337,144	.4967
55-59	5,989,159	12,304,540	.4867	4,669,189	7,406,501	.6304	10,658,348	19,711,041	.5407
60-64	3,506,765	6,729,943	.5211	1,972,064	2,807,680	.7024	5,478,829	9,537,623	.5744
65-69	1,034,866	2,003,220	.5166	512,197	657,222	.7793	1,547,063	2,660,442	.5815
70-74	10,414	40,049	.2600	0	0	.0000	10,414	40,049	.2600
75-79	0	0	.0000	0	0	.0000	0	0	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	47,278,357	113,681,201	.4159	47,518,915	100,313,884	.4737	94,797,272	213,995,085	.4430

TABLE B: Comparison of Present Value of Future Preretirement Death Benefits by Service Groups
Reduced Pension and \$40,000 Death Benefit Compared to Current Plan - All Participants - Alternative Actuarial Assumptions

Service Group	M A L L E			F E M A L E			A L L		
	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio
0	2,175,664	3,537,418	.6151	2,227,640	3,551,107	.6273	4,403,304	7,088,225	.6212
1	1,590,568	2,813,691	.4942	1,267,097	2,212,806	.5726	2,657,665	5,026,497	.5287
2	2,667,594	5,736,538	.4651	2,897,638	5,860,710	.4944	5,565,232	11,596,848	.4799
3	2,877,707	6,520,797	.4413	3,038,582	6,393,696	.4752	3,916,289	12,914,493	.4581
4	2,180,532	5,155,717	.4229	1,767,348	3,878,852	.4556	3,947,880	9,034,569	.4370
00-04	11,292,065	23,763,461	.4752	11,198,305	21,897,171	.5114	22,490,370	45,660,632	.4926
05-09	8,845,540	21,330,241	.4147	8,299,314	18,451,639	.4498	17,144,854	39,781,880	.4310
10-14	12,686,333	32,370,090	.3919	14,044,219	30,434,271	.4615	26,730,552	62,804,361	.4256
15-19	7,611,736	19,376,933	.3928	8,553,212	18,402,251	.4649	16,166,948	37,779,184	.4279
20-24	4,115,949	10,227,669	.4024	3,915,751	8,136,935	.4812	8,031,700	18,364,604	.4373
25-29	2,137,535	5,044,785	.4237	1,345,405	2,671,675	.5036	3,482,940	7,716,460	.4514
30-34	490,036	1,249,520	.3922	138,074	262,143	.5267	628,110	1,511,663	.4155
35-39	97,363	313,649	.3104	18,495	43,424	.4259	115,858	357,073	.3245
40+	1,800	4,853	.3709	4,140	14,375	.2880	5,940	19,228	.3089
TOTAL	47,278,357	113,681,201	.4159	47,518,915	100,313,884	.4737	94,797,272	213,995,085	.4430

DISTRIBUTION E22

Teachers Retirement System of Louisiana
Distributions as of 07-01-1993

TABLE A: Comparison of Present Value of Future Preretirement Death Benefits by Age Groups
Reduced Pension and Two Times Pay Death Benefit Compared to Current Plan - All Participants - Actuarial Valuation Assumptions

Age Group	M A L E		F E M A L E		A L L		Ratio
	Plan 1	Plan 2	Plan 1	Plan 2	Plan 1	Plan 2	
00-19	0	0	899	1,400	899	1,400	.6421
20-24	221,540	327,679	813,552	1,159,020	1,035,092	1,486,699	.7019
25-29	2,013,985	2,853,385	4,797,136	6,679,012	6,811,121	9,532,397	.7182
30-34	3,416,961	4,544,868	7,895,039	10,399,725	11,312,000	14,944,593	.7569
35-39	7,323,466	9,170,897	15,093,130	18,347,313	22,416,596	27,518,210	.8146
40-44	14,199,350	16,452,575	25,219,133	27,333,431	39,418,483	43,786,006	.9003
45-49	20,154,791	20,189,293	25,033,978	22,380,232	45,188,769	42,569,525	1.0615
50-54	18,564,592	14,130,950	18,293,537	12,267,585	36,858,129	26,398,535	1.3962
55-59	11,913,055	6,518,139	10,608,927	5,345,348	22,521,982	11,863,487	1.8984
60-64	6,387,565	3,155,346	4,676,816	2,163,393	11,064,381	5,318,739	2.0803
65-69	1,784,725	831,910	1,125,576	499,593	2,910,301	1,331,503	2.1857
70-74	0	0	0	0	0	0	.0000
75-79	0	0	0	0	0	0	.0000
80-84	0	0	0	0	0	0	.0000
85+	0	0	0	0	0	0	.0000
TOTAL	85,980,030	78,175,042	113,557,723	106,576,052	199,537,753	184,751,094	1.0800

TABLE B: Comparison of Present Value of Future Preretirement Death Benefits by Service Groups
Reduced Pension and Two Times Pay Death Benefit Compared to Current Plan - All Participants - Actuarial Valuation Assumptions

Service Group	M A L E		F E M A L E		A L L		Ratio
	Plan 1	Plan 2	Plan 1	Plan 2	Plan 1	Plan 2	
0	755,628	514,522	1,396,164	985,348	2,151,792	1,499,870	1.4347
1	2,418,185	1,615,653	4,057,686	3,191,044	6,475,871	4,806,697	1.3473
2	2,984,671	2,018,523	5,814,812	4,272,382	8,799,483	6,290,905	1.3988
3	3,293,798	2,496,950	4,647,974	3,536,560	7,941,772	6,033,110	1.3164
4	3,045,170	2,062,634	5,997,422	4,550,946	9,042,592	6,613,580	1.3673
00-04	12,497,452	8,707,882	21,914,058	16,536,280	34,511,510	25,244,162	1.3631
05-09	13,998,696	10,668,378	22,474,622	19,242,998	36,473,318	29,911,376	1.2194
10-14	14,842,937	14,127,897	21,877,609	21,587,832	36,858,646	35,715,729	1.0320
15-19	13,506,476	15,937,518	20,611,743	22,793,886	35,454,680	38,731,404	.9154
20-24	11,632,866	10,634,448	14,976,807	16,249,408	28,483,283	30,826,521	.9240
25-29	3,747,609	2,897,204	8,699,200	7,904,890	20,332,066	18,539,338	1.0967
30-34	720,606	573,019	2,375,761	1,768,994	6,123,370	4,666,198	1.3123
35-39	52,351	51,583	566,112	435,890	1,286,718	1,008,909	1.2754
40+	85,980,030	78,175,042	113,557,723	106,576,052	199,537,753	184,751,094	1.0800

DISTRIBUTION E23

Teachers Retirement System of Louisiana
Distributions as of 07-01-1993

TABLE A: Comparison of Present Value of Future Preretirement Death Benefits by Age Groups
Reduced Pension and Two Times Pay Death Benefit Compared to Current Plan - All Participants - Alternative Actuarial Assumptions

Age Group	M A L E			F E M A L E			A L L		
	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio
00-19	0	0	.0000	1,376	2,099	.6556	1,376	2,099	.6556
20-24	265,994	363,509	.7317	1,213,543	1,733,982	.6999	1,479,537	2,097,491	.7054
25-29	2,276,999	3,109,857	.7322	7,113,091	10,040,683	.7084	9,390,090	13,150,540	.7140
30-34	3,714,555	4,854,310	.7652	11,791,450	15,799,975	.7463	15,506,005	20,654,285	.7507
35-39	7,813,145	9,626,937	.8116	22,761,797	28,235,891	.8061	30,574,942	37,862,828	.8075
40-44	15,033,863	17,077,733	.8803	37,698,244	41,897,294	.8998	52,732,107	58,975,027	.8941
45-49	21,299,317	20,821,938	1.0229	36,343,333	33,213,468	1.0942	57,642,650	54,035,406	1.0668
50-54	19,815,254	14,713,757	1.3467	25,715,445	17,591,604	1.4786	45,530,699	32,105,361	1.4182
55-59	13,060,963	7,028,004	1.8584	14,254,592	7,102,892	2.0069	27,315,555	14,130,896	1.9330
60-64	7,013,806	3,426,035	2.0472	5,902,879	2,720,388	2.1699	12,916,685	6,146,423	2.1015
65-69	1,887,596	875,469	2.1561	1,320,650	587,216	2.2490	3,208,246	1,462,685	2.1934
70-74	0	0	.0000	0	0	.0000	0	0	.0000
75-79	0	0	.0000	0	0	.0000	0	0	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	92,181,492	81,897,549	1.1256	164,116,400	158,725,492	1.0340	256,297,892	240,623,041	1.0651

TABLE B: Comparison of Present Value of Future Preretirement Death Benefits by Service Groups
Reduced Pension and Two Times Pay Death Benefit Compared to Current Plan - All Participants - Alternative Actuarial Assumptions

Service Group	M A L E			F E M A L E			A L L		
	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio
0	822,198	545,580	1.5070	2,015,146	1,452,372	1.3875	2,837,344	1,997,952	1.4201
1	2,629,183	1,717,543	1.5308	5,879,598	4,718,135	1.2462	8,508,781	6,435,678	1.3221
2	3,233,914	2,146,916	1.5066	8,376,640	6,311,941	1.3271	11,610,554	8,458,457	1.3727
3	3,561,085	2,659,128	1.3392	6,707,058	5,226,825	1.2832	10,268,143	7,885,953	1.3021
4	3,272,890	2,183,762	1.4987	8,636,248	6,733,634	1.2826	11,909,138	8,917,396	1.3355
00-04	13,519,270	9,252,529	1.4611	31,614,690	24,442,907	1.2934	45,133,960	33,695,436	1.3395
05-09	15,013,220	11,246,159	1.3350	32,328,955	28,681,131	1.1342	47,542,175	39,927,290	1.1907
10-14	16,009,798	14,779,847	1.0832	31,974,208	32,572,741	.9816	47,984,006	47,352,588	1.0133
15-19	15,803,565	16,569,009	.9538	30,668,053	34,600,520	.8748	46,071,618	51,169,529	.9004
20-24	14,387,645	15,116,445	.9518	21,602,485	24,179,326	.8934	35,990,130	39,295,771	.9159
25-29	12,511,721	11,146,895	1.1224	12,128,627	11,243,983	1.0787	24,640,348	22,590,878	1.1005
30-34	4,090,874	3,110,308	1.3153	3,202,638	2,383,368	1.3437	7,293,512	5,493,676	1.3276
35-39	789,584	621,685	1.2701	722,381	554,123	1.3036	1,511,965	1,175,808	1.2859
40+	55,815	54,672	1.0209	74,363	67,393	1.1034	130,178	122,065	1.0665
TOTAL	92,181,492	81,897,549	1.1256	164,116,400	158,725,492	1.0340	256,297,892	240,623,041	1.0651

DISTRIBUTION E24

Teachers Retirement System of Louisiana
Distributions as of 07-01-1993

TABLE A: Comparison of Present Value of Future Preretirement Death Benefits by Age Groups
Reduced Pension and \$40,000 Death Benefit Compared to Current Plan - All Participants - Actuarial Valuation Assumptions

Age Group	H A L L E			F E H A L L E			A L L L		
	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio
00-19	0	0	.0000	814	1,400	.5814	814	1,400	.5814
20-24	123,749	327,679	.3777	466,244	1,159,020	.4023	589,993	1,486,699	.3968
25-29	1,077,120	2,853,385	.3775	2,706,044	6,679,012	.4052	3,783,164	9,532,397	.3969
30-34	1,857,482	4,544,868	.4087	4,766,826	10,399,725	.4584	6,624,308	14,944,593	.4433
35-39	3,995,645	9,170,897	.4357	9,275,303	18,347,313	.5055	13,270,948	27,518,210	.4823
40-44	7,808,719	16,452,575	.4746	15,703,303	27,333,431	.5745	23,512,022	43,786,006	.5370
45-49	11,045,674	20,189,293	.5471	16,302,636	22,267,585	.7284	27,348,310	26,398,535	.6424
50-54	10,246,484	14,130,950	.7251	12,758,885	5,345,348	1.5016	23,005,369	11,863,487	.8715
55-59	6,888,914	6,518,139	1.0262	8,026,653	2,163,393	1.7117	14,715,567	5,318,739	1.2604
60-64	3,620,491	3,155,346	1.1474	3,702,993	499,593	1.8536	7,323,484	1,331,503	1.3769
65-69	1,018,671	831,910	1.2245	926,048	0	.0000	1,944,719	0	1.4605
70-74	0	0	.0000	0	0	.0000	0	0	.0000
75-79	0	0	.0000	0	0	.0000	0	0	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	47,482,949	78,175,042	.6074	74,635,749	106,576,052	.7003	122,118,698	184,751,094	.6610

TABLE B: Comparison of Present Value of Future Preretirement Death Benefits by Service Groups
Reduced Pension and \$48,800 Death Benefit Compared to Current Plan - All Participants - Actuarial Valuation Assumptions

Service Group	H A L L E			F E H A L L E			A L L L		
	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio
0	521,888	514,522	1.0143	1,170,587	985,348	1.1880	1,692,475	1,499,870	1.1284
1	1,319,089	1,615,553	.8164	2,457,591	3,191,044	.7702	3,776,680	4,806,697	.7857
2	1,567,138	2,018,523	.7764	3,591,211	4,272,382	.8406	5,158,349	6,290,905	.8200
3	1,734,922	2,496,550	.6949	2,917,308	3,536,560	.8249	4,652,230	6,033,110	.7711
4	1,659,514	2,062,634	.8045	3,852,368	4,550,946	.8465	5,511,682	6,613,580	.8334
00-04	6,802,351	8,707,882	.7812	13,989,065	16,536,280	.8460	20,791,416	25,244,162	.8236
05-09	7,461,407	10,668,378	.6994	14,868,520	19,242,998	.7727	22,329,927	29,911,376	.7465
10-14	8,125,974	14,127,897	.5752	14,736,689	21,587,832	.6826	22,862,663	35,715,729	.6401
15-19	8,324,673	15,937,518	.5223	13,798,502	22,793,886	.6054	22,123,175	38,731,404	.5712
20-24	7,625,595	14,577,113	.5231	9,769,419	16,249,408	.6012	17,395,014	30,826,521	.5643
25-29	6,593,137	10,634,448	.6200	5,602,532	7,904,890	.7087	12,195,669	18,539,338	.6578
30-34	2,148,522	2,897,204	.7416	1,512,268	1,768,994	.8549	3,660,790	4,666,198	.7845
35-39	386,359	573,019	.6743	329,604	435,890	.7562	715,963	1,008,909	.7096
40+	14,931	51,563	.2895	29,150	55,874	.5217	44,081	107,457	.4102
TOTAL	47,482,949	78,175,042	.6074	74,635,749	106,576,052	.7003	122,118,698	184,751,094	.6610

DISTRIBUTION E25

Teachers Retirement System of Louisiana
Distributions as of 07-01-1993

TABLE A: Comparison of Present Value of Future Preretirement Death Benefits by Age Groups
Reduced Pension and \$40,000 Death Benefit Compared to Current Plan - All Participants - Alternative Actuarial Assumptions

Age Group	M A L L E		F E M A L E		A L L		Ratio
	Plan 1	Plan 2	Plan 1	Plan 2	Plan 1	Plan 2	
00-19	0	0	1,329	2,099	1,329	2,099	.6332
20-24	160,422	363,509	704,149	1,733,982	864,571	2,097,691	.4122
25-29	1,257,001	3,109,857	4,022,539	10,040,683	5,279,540	13,150,540	.4015
30-34	2,041,411	4,854,310	7,149,123	15,799,975	9,190,534	20,654,285	.4450
35-39	4,275,149	9,626,937	14,164,431	28,235,891	18,439,580	37,862,828	.4870
40-44	8,269,305	17,077,733	23,852,706	41,897,294	32,122,011	58,975,027	.5447
45-49	11,662,622	20,821,938	24,005,572	33,213,468	35,668,194	54,035,406	.6601
50-54	10,938,174	14,713,757	18,164,245	17,391,604	29,102,419	32,105,361	.9065
55-59	7,351,536	7,028,004	10,900,585	7,102,892	18,252,121	14,130,896	1.2916
60-64	3,986,493	3,426,035	4,703,773	2,720,388	8,690,266	6,146,423	1.4139
65-69	1,078,132	875,469	1,088,523	587,216	2,166,655	1,462,685	1.4813
70-74	0	0	0	0	0	0	.0000
75-79	0	0	0	0	0	0	.0000
80-84	0	0	0	0	0	0	.0000
85+	0	0	0	0	0	0	.0000
TOTAL	51,020,245	81,897,549	108,756,975	158,725,492	159,777,220	240,623,041	.6640

TABLE B: Comparison of Present Value of Future Preretirement Death Benefits by Service Groups
Reduced Pension and \$40,000 Death Benefit Compared to Current Plan - All Participants - Alternative Actuarial Assumptions

Service Group	M A L L E		F E M A L E		A L L		Ratio
	Plan 1	Plan 2	Plan 1	Plan 2	Plan 1	Plan 2	
0	579,150	545,580	1,718,570	1,452,372	2,297,720	1,997,952	1.1500
1	1,448,960	1,717,543	3,599,165	4,718,135	5,048,125	6,435,678	.7844
2	1,711,863	2,146,516	5,225,980	6,311,941	6,937,843	8,458,457	.8202
3	1,889,547	2,659,128	4,253,323	5,226,825	6,142,870	7,885,953	.7790
4	1,789,170	2,183,762	5,599,182	6,733,634	7,388,352	8,917,396	.8285
00-04	7,418,690	9,252,529	20,396,220	24,442,907	27,814,910	33,695,436	.8255
05-09	8,021,897	11,246,159	21,682,773	28,681,131	29,704,670	39,927,290	.7440
10-14	8,697,609	14,779,847	21,702,875	32,572,741	30,400,484	47,352,588	.6420
15-19	8,869,799	16,569,009	20,402,378	34,600,520	29,272,177	51,169,529	.5721
20-24	8,123,567	15,116,445	14,193,102	24,179,326	22,316,669	39,295,771	.5679
25-29	7,096,084	11,146,895	7,866,357	11,243,983	14,942,441	22,390,878	.6682
30-34	2,051,597	3,110,308	2,054,348	2,383,368	4,405,945	5,495,676	.8020
35-39	425,044	621,685	423,682	554,123	848,726	1,175,808	.7218
40+	15,958	54,672	35,240	67,393	51,198	122,065	.4194
TOTAL	51,020,245	81,897,549	108,756,975	158,725,492	159,777,220	240,623,041	.6640

Section F - Standard In-Service Disability Benefit Plan

Using existing databases from the LASERS and Teachers' Retirement systems, compute the expected value of lives in the system with respect to the creation of a standard in-service disability benefit plan. M&R will provide information on a range for insurance industry risk premiums, administrative costs, and profit margins relative to this plan. The estimate will be based on M&R's experience and will be expressed as a percentage of expected value.

Standard In-Service PreRetirement Disability Benefit Plan

We measured the expected benefit and the present value of the expected benefit of a disability income benefit that is a fixed percent of the employee's predisability pay. Please refer to the Introduction for the actuarial methodology and definitions and Appendix 1 for the actuarial assumptions. The plans we valued assume that there is no service requirement to join the plan. The surveys showed that the average eligibility requirement is 6 months. However some paper work may be reduced if the employee is eligible to become a participant in the in-service death benefit plan at the same time he becomes a member of the retirement system. On the other hand, some cost savings may be enjoyed if there is a service requirement.

Exhibit F1 shows the expected values of a plan providing for disability income of 65% of pay if a person becomes disabled while an employee covered either by the LASERS or the Teachers' Retirement System. This benefit starts after a 6 month waiting period and is payable as long as the participant remains disabled, but not past age 65. As you can see, the value of this plan is relatively modest, with one year term costs ranging from 1.03% to 1.34% of payroll. Over the long term, the plan is a modest component of employee compensation, ranging from 1.40% to 1.80% of compensation.

Distributions F2-F5 are age-service distributions on a cost per thousand basis for the 1 year term costs. These distributions may be viewed as a tool for determining the value of the benefit to the employee or as a tool for determining the cost of an employee's benefit.

Distribution F2 is an age-service distribution of the 1 year term cost for the "65% of Pay" benefit for the LASERS on the basis of the current actuarial assumptions. The one year term cost is for \$754 million of annual disability income insurance in force. The 1 year term cost is \$1.66 per thousand in total per month, \$1.79 per thousand for males, and \$1.57 per thousand for females.

Distribution F3 is an age-service distribution of the 1 year term cost for the "65% of Pay" benefit for the LASERS on the basis of the alternative actuarial assumptions. The one year term cost is for \$754 million of annual disability insurance income in force. The 1 year term cost is \$2.17 per thousand in total per month, \$1.97 per thousand for males, and \$2.31 per thousand for females.

Distribution F4 is an age-service distribution of the 1 year term cost for the "65% of Pay" benefit for the Teachers' Retirement System on the basis of the current actuarial assumptions. The one year term cost is for \$1.05 billion of annual disability insurance income in force. The 1 year term cost is \$1.85 per thousand in total per month, \$3.28 per thousand for males, and \$1.59 per thousand for females.

Distribution F5 is an age-service distribution of the 1 year term cost for the "65% of Pay" benefit for the Teachers' Retirement System on the basis of the alternative actuarial assumptions. The

one year term cost is for \$1.05 billion of annual disability insurance income in force. The 1 year term cost is \$2.40 per thousand in total per month, \$3.57 per thousand for males, and \$2.18 per thousand for females.

Distributions F6 - F8 are age-service distributions for the one year term cost as a percent of pay.

Exhibit F1

**State of Louisiana Standard Disability Benefit Plan
65% of Pay to 65 - No Participation Requirement**

	LASERS		Teachers		Total	
Number of Participants	66,943		84,612		151,555	
Compensation	1,548,407,194		2,170,167,043		3,718,574,237	
Alternative Cost Measures Current Assumptions						
Present Value of Future Benefits	179,646,925		285,727,503		465,374,428	
Present Value of Future Salary	12,467,371,446		20,668,476,440		33,135,847,886	
Accrued Liability	101,851,214		167,332,014		269,183,228	
1 Year Term Cost	15,015,670	0.97%	23,310,079	1.07%	38,325,749	1.03%
Aggregate Cost	22,311,567	1.44%	30,001,070	1.38%	52,225,293	1.40%
Unit Credit Normal Cost	13,034,772	0.84%	16,965,997	0.78%	30,000,769	0.81%
Amortization	4,907,612	0.32%	8,062,747	0.37%	12,970,359	0.35%
"Pension Funding"	17,942,384	1.16%	25,028,744	1.15%	42,971,128	1.16%
Alternative Cost Measures Alternative Assumptions						
Present Value of Future Benefits	214,373,548		373,399,959		587,773,507	
Present Value of Future Salary	12,314,640,036		20,330,863,063		32,645,503,099	
Accrued Liability	121,813,708		217,867,894		339,681,602	
1 Year Term Cost	19,637,279	1.27%	30,051,517	1.38%	49,688,796	1.34%
Aggregate Cost	26,954,709	1.74%	39,857,643	1.84%	66,951,929	1.80%
Unit Credit Normal Cost	16,753,085	1.08%	22,189,169	1.02%	38,942,254	1.05%
Amortization	5,869,487	0.38%	10,497,775	0.48%	16,367,262	0.44%
"Pension Funding"	22,622,572	1.46%	32,686,944	1.51%	55,309,516	1.49%

DISTRIBUTION F2

Louisiana State Employees' Retirement System
Distributions as of 07-01-1993

TABLE A: Disability Benefits One Year Term Cost By Age Groups
65% of Pay Disability Benefit - All Participants - Actuarial Valuation Assumptions

Age Group	M A L L E			F E M A L E			A L L		
	Total Yr	Benefits	1YT/1000	Total Yr	Benefits	1YT/1000	Total Yr	Benefits	1YT/1000
00-19	0	132,205	.0000	0	82,464	.0000	0	214,669	.0000
20-24	0	6,209,411	.0000	0	6,447,880	.0000	0	12,657,291	.0000
25-29	0	17,115,180	.0000	0	27,616,329	.0000	0	44,731,509	.0000
30-34	109,420	28,346,733	32.1671	182,532	50,934,447	29.8439	291,952	79,281,180	30.6874
35-39	406,751	41,307,208	82.0581	714,658	77,513,921	76.8311	1,121,409	118,821,129	78.6483
40-44	884,763	54,621,813	134.9832	1,335,085	87,430,058	127.2527	2,219,848	142,051,871	130.2252
45-49	1,609,467	58,355,179	229.8378	1,944,832	74,009,108	221.2376	3,574,299	132,364,287	225.0292
50-54	2,002,262	44,882,664	371.7586	2,323,238	53,333,325	363.0060	4,325,500	98,215,989	367.0058
55-59	1,567,985	34,213,882	381.9076	1,624,558	36,242,022	373.5438	3,192,543	70,455,904	377.6053
60-64	159,570	20,286,392	65.5469	131,423	19,139,423	57.2218	290,993	39,425,815	61.5064
65-69	0	6,982,481	.0000	0	6,438,596	.0000	0	13,421,077	.0000
70-74	0	1,167,042	.0000	0	1,353,206	.0000	0	2,520,248	.0000
75-79	0	78,492	.0000	0	19,372	.0000	0	97,864	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	6,740,218	313,698,682	179.0523	8,276,326	440,560,151	156.5493	15,016,544	754,258,833	165.9084

TABLE B: Disability Benefits One Year Term Cost By Service Groups
65% of Pay Disability Benefit - All Participants - Actuarial Valuation Assumptions

Service Group	M A L L E			F E M A L E			A L L		
	Total Yr	Benefits	1YT/1000	Total Yr	Benefits	1YT/1000	Total Yr	Benefits	1YT/1000
0	339,390	25,706,972	110.0188	526,346	41,365,920	106.0345	865,736	67,072,892	107.5616
1	196,785	13,530,421	121.1868	250,678	17,956,773	116.3340	447,443	31,487,194	118.4193
2	348,287	20,630,339	140.6856	449,100	34,207,210	109.4068	797,387	54,837,549	121.1741
3	310,428	19,626,860	131.8041	426,828	31,434,650	113.1522	737,256	51,061,510	120.3215
4	244,415	13,688,648	148.7942	237,921	16,593,021	119.4885	482,336	30,281,669	132.7360
00-04	1,439,285	93,183,240	128.7146	1,890,873	141,597,574	111.3135	3,330,158	234,740,814	118.2211
05-09	887,820	46,392,750	159.4753	1,049,110	64,231,478	138.7054	1,956,930	110,624,228	147.4157
10-14	1,447,084	68,726,992	173.4628	1,937,373	102,780,000	158.7025	3,404,457	171,506,992	165.4188
15-19	1,117,050	47,780,756	194.8222	1,561,542	70,445,369	184.7226	2,678,592	118,226,125	188.8043
20-24	837,100	29,496,354	236.4982	1,040,589	38,843,622	223.2432	1,877,689	68,339,976	228.9642
25-29	786,144	21,046,550	311.2719	648,313	19,459,249	277.6370	1,434,457	40,505,799	295.1135
30-34	205,038	5,933,779	287.9531	99,481	2,771,671	299.1006	304,519	6,705,450	291.5023
35-39	20,674	1,122,825	153.4374	8,540	373,039	190.7754	29,214	1,495,864	162.7488
40+	23	15,436	12.4169	505	98,149	42.8770	528	113,585	38.7375
TOTAL	6,740,218	313,698,682	179.0523	8,276,326	440,560,151	156.5493	15,016,544	754,258,833	165.9084

DISTRIBUTION F3

Louisiana State Employees' Retirement System
Distributions as of 07-01-1993

TABLE A: Disability Benefits One Year Term Cost By Age Groups
65% of Pay Disability Benefit - All Participants - Alternative Actuarial Assumptions

Age Group	M A L E		F E M A L E		A L L	
	Total 1YT	Benefits 1YT/1000	Total 1YT	Benefits 1YT/1000	Total 1YT	Benefits 1YT/1000
00-19	1,009	132,205	841	82,464	1,850	214,669
20-24	46,966	6,209,411	65,695	6,447,880	112,661	12,657,291
25-29	138,798	17,115,180	313,485	27,616,329	452,283	44,731,509
30-34	262,690	28,346,733	741,509	50,934,447	1,004,199	79,281,180
35-39	474,759	41,307,208	1,567,604	77,513,921	2,042,363	118,821,129
40-44	865,603	54,621,813	2,243,492	87,430,058	3,109,095	142,051,871
45-49	1,422,670	58,355,179	2,536,568	74,009,108	3,959,238	132,364,287
50-54	1,743,867	44,882,664	2,438,979	53,333,325	4,182,846	98,215,989
55-59	1,757,509	34,213,882	1,802,768	36,262,022	3,560,277	70,455,904
60-64	703,126	20,286,392	509,115	19,139,423	1,212,241	39,425,815
65-69	0	6,982,481	0	6,438,596	0	13,421,077
70-74	0	1,167,042	0	1,353,206	0	2,520,248
75-79	0	78,492	0	19,372	0	97,864
80-84	0	0	0	0	0	0
85+	0	0	0	0	0	0
TOTAL	7,416,997	313,698,682	12,220,056	440,560,151	19,637,053	754,258,833

TABLE B: Disability Benefits One Year Term Cost By Service Groups
65% of Pay Disability Benefit - All Participants - Alternative Actuarial Assumptions

Service Group	M A L E		F E M A L E		A L L	
	Total 1YT	Benefits 1YT/1000	Total 1YT	Benefits 1YT/1000	Total 1YT	Benefits 1YT/1000
0	427,365	25,706,972	924,115	41,365,920	1,351,480	67,072,892
1	238,294	13,530,421	424,531	17,956,773	662,825	31,487,194
2	397,952	20,630,339	779,734	34,207,210	1,177,686	54,837,549
3	369,558	19,626,860	733,133	31,434,650	1,102,691	51,061,510
4	280,203	13,688,648	401,231	16,593,021	681,434	30,281,669
00-04	1,713,372	93,183,240	3,262,744	141,557,574	4,976,116	234,740,814
05-09	1,023,968	46,392,750	1,671,940	64,231,478	2,695,908	110,624,228
10-14	1,614,529	68,726,992	2,888,762	102,780,000	4,503,291	171,506,992
15-19	1,171,502	47,780,756	2,161,616	70,445,369	3,332,918	118,226,125
20-24	845,741	29,496,354	1,343,882	38,843,622	2,189,423	68,339,976
25-29	776,246	21,046,550	762,762	19,459,249	1,539,008	40,505,799
30-34	236,693	5,933,779	114,068	2,771,671	350,761	8,705,450
35-39	35,022	1,122,825	12,126	373,039	47,148	1,495,864
40+	124	15,436	2,356	98,149	2,480	113,585
TOTAL	7,416,997	313,698,682	12,220,056	440,560,151	19,637,053	754,258,833

DISTRIBUTION F4

Teachers Retirement System of Louisiana
Distributions as of 07-01-1993

TABLE A: Disability Benefits One Year Term Cost By Age Groups
65% of Pay Disability Benefit - All Participants - Actuarial Valuation Assumptions

Age Group	M A L E			F E M A L E			A L L		
	Total 1YT	Benefits 1YT/1000		Total 1YT	Benefits 1YT/1000		Total 1YT	Benefits 1YT/1000	
00-19	0	0	.0000	0	69,219	.0000	0	69,219	.0000
20-24	0	1,638,017	.0000	0	17,875,988	.0000	0	19,514,005	.0000
25-29	0	9,820,874	.0000	0	55,502,705	.0000	0	65,323,579	.0000
30-34	121,791	12,723,119	79.7701	593,834	103,279,327	47.9149	715,625	116,002,446	51.4088
35-39	308,889	18,880,459	136.3354	1,382,966	129,025,673	89.3211	1,691,855	147,906,132	95.3226
40-44	912,897	29,382,718	258.9098	3,484,483	174,982,840	165.9630	4,397,380	204,345,558	179.3278
45-49	1,752,135	32,923,129	443.4914	4,633,587	159,639,914	241.8770	6,385,722	192,563,043	276.3477
50-54	1,938,237	28,351,810	569.7041	4,178,541	123,916,896	281.0043	6,116,798	152,268,706	334.7590
55-59	978,110	17,561,081	464.1466	1,897,971	71,661,076	220.7115	2,876,081	89,222,157	268.6254
60-64	439,028	9,076,960	403.0608	686,606	34,293,263	166.8467	1,125,634	43,370,223	216.2840
65-69	0	2,813,562	.0000	0	9,059,086	.0000	0	11,872,648	.0000
70-74	0	871,360	.0000	0	1,732,867	.0000	0	2,604,227	.0000
75-79	0	44,503	.0000	0	85,073	.0000	0	129,576	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	6,451,107	164,087,592	327.6252	881,168,988	881,103,927	159.4400	23,309,095	1,045,191,519	185.8439

TABLE B: Disability Benefits One Year Term Cost By Service Groups
65% of Pay Disability Benefit - All Participants - Actuarial Valuation Assumptions

Service Group	M A L E			F E M A L E			A L L		
	Total 1YT	Benefits 1YT/1000		Total 1YT	Benefits 1YT/1000		Total 1YT	Benefits 1YT/1000	
0	41,710	5,415,133	64.1872	156,388	34,676,437	37.5827	198,098	40,091,590	41.1761
1	138,714	9,984,712	115.7720	411,266	53,472,118	64.0935	549,980	63,456,830	72.2250
2	156,524	10,556,131	125.1200	612,078	64,815,005	78.6955	770,602	75,373,136	85.1986
3	165,000	9,489,104	144.9030	455,931	41,570,934	91.3961	620,931	51,060,058	101.3400
4	160,948	7,600,863	176.4800	611,045	55,868,756	91.1429	772,013	63,469,619	101.3625
00-04	664,916	43,047,963	128.7161	2,246,708	250,403,270	74.7697	2,911,624	293,451,233	82.6834
05-09	756,786	26,474,679	238.2106	2,467,991	176,389,840	116.5974	3,224,777	202,864,519	132.4684
10-14	909,012	25,274,225	299.7164	2,860,754	161,127,235	147.9552	3,769,766	186,401,460	168.5326
15-19	1,150,425	25,048,120	382.7383	3,325,088	142,350,032	194.6544	4,473,513	167,398,152	222.6947
20-24	1,328,017	21,643,591	511.3213	3,325,088	93,611,644	279.0832	4,643,069	115,255,195	322.6947
25-29	1,241,949	16,674,162	620.6954	2,186,819	43,760,149	416.4403	3,428,768	60,434,311	472.7954
30-34	350,650	4,873,285	599.6127	530,782	10,664,435	414.7602	881,432	15,537,720	472.7377
35-39	49,123	922,422	443.7864	99,990	2,263,374	368.1451	149,113	3,185,796	390.0464
40+	229	129,185	14.7721	4,804	533,948	74.9761	5,033	663,133	63.2477
TOTAL	6,451,107	164,087,592	327.6252	16,857,988	881,103,927	159.4400	23,309,095	1,045,191,519	185.8439

DISTRIBUTION F5

Teachers Retirement System of Louisiana
Distributions as of 07-01-1993

TABLE A: Disability Benefits One Year Term Cost By Age Groups
65% of Pay Disability Benefit - All Participants - Alternative Actuarial Assumptions

Age Group	M A L E			F E M A L E			A L L		
	Total 1YT	Benefits 1YT/1000	0	Total 1YT	Benefits 1YT/1000	0	Total 1YT	Benefits 1YT/1000	0
00-19	0	0	.0000	128	69,219	15.4100	128	69,219	15.4100
20-24	8,592	1,638,017	43.7114	91,618	17,875,988	42.7100	100,210	19,514,005	42.7941
25-29	64,916	9,820,874	55.0834	464,042	55,502,705	69.6726	528,958	65,323,579	67.4792
30-34	104,414	12,723,119	68.3986	844,611	103,279,327	68.1494	949,025	116,002,446	68.1756
35-39	252,900	18,880,459	111.6233	2,121,391	129,025,673	137.0135	2,374,291	147,906,132	133.7724
40-44	648,637	29,382,718	183.9622	4,246,345	174,982,840	202.2499	4,894,982	204,345,558	199.6203
45-49	1,393,005	32,923,129	352.5903	5,412,951	159,639,914	282.5604	6,805,956	192,563,043	294.5337
50-54	2,110,067	28,351,810	620.2035	5,532,150	123,916,896	372.0336	7,642,217	152,268,706	418.2418
55-59	1,758,539	17,561,081	834.4869	3,394,044	71,661,076	394.6871	5,152,583	89,222,157	481.2503
60-64	681,577	9,076,960	625.7391	919,678	34,293,263	223.4836	1,601,255	43,370,223	307.6717
65-69	0	2,813,562	.0000	0	9,059,086	.0000	0	11,872,648	.0000
70-74	0	871,360	.0000	0	1,732,867	.0000	0	2,604,227	.0000
75-79	0	44,503	.0000	0	85,073	.0000	0	129,576	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	7,022,647	164,087,592	356.6513	23,026,958	881,103,927	217.7851	30,049,605	1,045,191,519	239.5861

TABLE B: Disability Benefits One Year Term Cost By Service Groups
65% of Pay Disability Benefit - All Participants - Alternative Actuarial Assumptions

Service Group	M A L E			F E M A L E			A L L		
	Total 1YT	Benefits 1YT/1000	0	Total 1YT	Benefits 1YT/1000	0	Total 1YT	Benefits 1YT/1000	0
0	43,520	5,415,153	66.9726	248,105	34,676,437	59.6238	291,625	40,091,590	60.6164
1	145,893	9,984,712	121.7637	674,694	53,472,118	105.1473	820,587	63,456,830	107.7618
2	175,856	10,558,131	138.7998	926,477	64,815,005	119.1181	1,102,333	75,373,136	121.8751
3	173,545	9,489,104	152.4073	697,379	41,570,954	139.7969	870,924	51,060,058	142.1405
4	172,916	7,600,863	189.5793	887,436	55,868,756	132.3692	1,060,352	63,469,619	139.2204
00-04	711,730	43,047,963	137.7785	3,434,091	250,403,270	114.2853	4,145,821	293,451,233	117.7317
05-09	772,904	26,474,679	243.2840	3,385,405	176,389,840	159.9395	4,158,309	202,864,519	170.8163
10-14	897,677	25,274,225	295.9791	3,772,252	161,127,235	195.0970	4,669,929	186,401,460	208.7756
15-19	1,112,909	25,048,120	370.2570	4,409,974	142,350,032	258.1649	5,522,883	167,398,152	274.9375
20-24	1,367,582	21,643,551	526.5548	4,067,724	93,611,644	362.1099	5,435,306	115,255,195	392.9907
25-29	1,512,450	16,674,162	755.8851	2,941,319	43,760,149	560.1213	4,453,769	60,434,311	614.1336
30-34	565,964	4,873,285	967.8003	856,700	10,664,435	669.4369	1,422,664	15,537,720	763.0163
35-39	80,928	922,422	731.1187	152,868	2,263,374	562.8323	233,796	3,185,796	611.5503
40+	503	129,185	32.4470	6,625	533,948	103.3965	7,128	663,133	89.5748
TOTAL	7,022,647	164,087,592	356.6513	23,026,958	881,103,927	217.7851	30,049,605	1,045,191,519	239.5861

DISTRIBUTION F6

Louisiana State Employees' Retirement System
Distributions as of 07-01-1993

TABLE A: Disability Benefits One Year Term Cost By Age Groups as a Percent of Earnings
65% of Pay Disability Benefit - All Participants - Actuarial Valuation Assumptions

Age Group	M A L E			F E M A L E			A L L		
	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage
00-19	0	393,286	.0000	0	217,618	.0000	0	610,904	.0000
20-24	0	18,126,882	.0000	0	16,723,000	.0000	0	34,849,882	.0000
25-29	0	46,983,508	.0000	0	68,225,085	.0000	0	115,208,593	.0000
30-34	109,420	71,504,597	.1530	182,532	117,740,609	.1550	291,952	189,245,206	.1543
35-39	406,751	94,616,566	.4299	714,658	165,980,353	.4306	1,121,409	260,598,919	.4303
40-44	884,763	113,710,964	.7781	1,335,085	173,338,977	.7702	2,219,848	287,049,941	.7733
45-49	1,609,467	111,428,858	1.4444	1,964,832	136,383,230	1.4407	3,574,299	247,812,088	1.4423
50-54	2,002,262	79,526,827	2.5177	2,523,238	92,041,542	2.5241	4,325,500	171,568,369	2.5212
55-59	1,567,985	56,553,172	2.7726	1,624,558	58,489,662	2.7775	3,192,543	115,042,834	2.7751
60-64	159,570	31,120,502	.5127	131,423	26,973,556	.4872	290,993	58,094,058	.5009
65-69	0	10,332,102	.0000	0	7,656,314	.0000	0	17,988,416	.0000
70-74	0	1,735,447	.0000	0	1,615,254	.0000	0	3,350,701	.0000
75-79	0	117,280	.0000	0	23,239	.0000	0	140,519	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	6,740,218	636,151,991	1.0595	8,276,326	865,408,439	.9563	15,016,544	1,501,560,430	1.0001

TABLE B: Disability Benefits One Year Term Cost By Service Groups as a Percent of Earnings
65% of Pay Disability Benefit - All Participants - Actuarial Valuation Assumptions

Service Group	M A L E			F E M A L E			A L L		
	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage
0	339,390	57,882,263	.5863	526,346	86,422,209	.6090	865,736	144,304,472	.5999
1	196,765	29,994,808	.6560	250,678	36,946,310	.6785	447,443	66,941,118	.6684
2	348,287	45,010,150	.7738	449,100	71,193,645	.6308	797,387	116,203,795	.6862
3	310,428	42,870,818	.7261	426,828	65,366,086	.6530	737,256	108,236,904	.6812
4	244,415	29,271,205	.8350	237,921	34,285,631	.6939	482,336	63,556,836	.7589
00-04	1,439,285	205,029,244	.7020	1,890,873	294,213,881	.6427	3,330,158	499,243,125	.6670
05-09	887,820	95,246,781	.9521	1,069,110	128,615,438	.8312	1,956,930	223,862,219	.8742
10-14	1,447,084	137,959,802	1.0489	1,957,373	200,937,197	.9741	3,404,457	338,896,799	1.0046
15-19	1,117,050	93,834,867	1.1904	1,561,542	132,578,601	1.1762	2,678,592	226,593,468	1.1821
20-24	837,100	54,950,141	1.5234	1,040,589	69,972,727	1.4871	1,877,689	124,922,868	1.5031
25-29	786,144	37,331,046	2.1047	648,313	33,654,921	1.9264	1,434,457	71,005,967	2.0202
30-34	205,038	9,993,148	2.0518	99,481	4,561,101	2.1811	304,519	14,554,249	2.0923
35-39	20,674	1,764,222	1.1718	8,540	555,847	1.5364	29,214	2,320,069	1.2592
40+	23	22,940	.1003	505	138,726	.3640	528	161,666	.3266
TOTAL	6,740,218	636,151,991	1.0595	8,276,326	865,408,439	.9563	15,016,544	1,501,560,430	1.0001

DISTRIBUTION F7

Louisiana State Employees' Retirement System
Distributions as of 07-01-1993

TABLE A: Disability Benefits One Year Term Cost By Age Groups as a Percent of Earnings
65% of Pay Disability Benefit - All Participants - Alternative Actuarial Assumptions

M A L E	F E M A L E	A L L	A L L						
Age Group	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage
00-19	1,009	393,286	.2566	841	217,618	.3865	1,850	610,904	.3028
20-24	46,966	18,126,882	.2591	65,695	16,723,000	.3928	112,661	34,849,882	.3233
25-29	138,798	46,983,508	.2954	313,485	68,225,085	.4595	452,283	115,208,593	.3926
30-34	262,690	71,504,597	.3674	741,509	117,740,609	.6298	1,004,199	189,245,206	.5306
35-39	474,759	94,618,566	.5018	1,567,604	165,980,553	.9445	2,042,363	260,598,919	.7837
40-44	865,603	113,710,964	.7612	2,243,492	173,338,977	1.2943	3,109,095	287,049,941	1.0831
45-49	1,422,670	111,428,858	1.2768	2,536,568	136,383,230	1.8599	3,959,238	247,812,088	1.5977
50-54	1,743,867	79,526,827	2.1928	2,438,979	92,041,542	2.6499	4,182,846	171,568,369	2.4380
55-59	1,757,509	56,553,172	3.1077	1,802,768	58,489,662	3.0822	3,560,277	115,042,834	3.0947
60-64	703,126	31,120,502	2.2594	509,115	26,973,556	1.8875	1,212,241	58,094,058	2.0867
65-69	0	10,332,102	.0000	0	7,656,314	.0000	0	17,988,416	.0000
70-74	0	1,735,447	.0000	0	1,615,254	.0000	0	3,350,701	.0000
75-79	0	117,280	.0000	0	23,239	.0000	0	140,519	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	7,416,997	636,151,991	1.1659	12,220,056	865,408,439	1.4121	19,637,053	1,501,560,430	1.3078

TABLE B: Disability Benefits One Year Term Cost By Service Groups as a Percent of Earnings
65% of Pay Disability Benefit - All Participants - Alternative Actuarial Assumptions

Service Group	M A L E	F E M A L E	A L L						
Service Group	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage
0	427,365	57,882,263	.7383	924,115	86,422,209	1.0693	1,351,480	144,304,472	.9365
1	238,294	29,994,808	.7945	424,531	36,946,310	1.1490	662,825	66,941,118	.9902
2	397,952	45,010,150	.8841	779,734	71,193,645	1.0952	1,177,686	116,203,795	1.0135
3	369,558	42,870,818	.8620	733,133	65,366,086	1.1216	1,102,691	108,236,904	1.0188
4	280,203	29,271,205	.9573	401,231	34,285,631	1.1703	681,434	63,556,836	1.0722
00-04	1,713,372	205,029,244	.8357	3,262,744	294,213,881	1.1090	4,976,116	499,243,125	.9967
05-09	1,023,968	95,246,781	1.0751	1,671,940	128,615,438	1.3000	2,695,908	223,862,219	1.2043
10-14	1,614,529	137,959,602	1.1703	2,888,762	200,937,197	1.4376	4,503,291	338,896,799	1.3288
15-19	1,171,302	93,834,867	1.2483	2,161,616	132,758,601	1.6282	3,332,918	226,593,468	1.4709
20-24	845,741	54,950,141	1.5391	1,343,682	69,972,727	1.9203	2,189,423	124,922,868	1.7526
25-29	776,246	37,351,046	2.0782	762,762	33,654,921	2.2664	1,539,008	71,005,967	2.1674
30-34	236,695	9,993,148	2.3686	114,068	4,561,101	2.5009	350,761	14,554,249	2.4100
35-39	35,022	1,764,222	1.9851	12,126	555,847	2.1815	47,148	2,320,069	2.0322
40+	124	22,940	.5405	2,356	138,726	1.6983	2,480	161,666	1.5340
TOTAL	7,416,997	636,151,991	1.1659	12,220,056	865,408,439	1.4121	19,637,053	1,501,560,430	1.3078

DISTRIBUTION F8

Teachers Retirement System of Louisiana
Distributions as of 07-01-1993

TABLE A: Disability Benefits One Year Term Cost By Age Groups as a Percent of Earnings
65% of Pay Disability Benefit - All Participants - Actuarial Valuation Assumptions

Age Group	M	A	L	E	F	E	M	A	L	E	Percentage	1YT Cost	Earnings	A	L	L	Percentage
00-19	0	0	0	0	0	0	0	0	0	0	.0000	0	33,673	0	33,673	.0000	
20-24	0	3,390,232	0	0	0	0	0	0	0	0	.0000	0	23,513,520	0	26,903,752	.0000	
25-29	0	23,133,525	0	0	0	0	0	0	0	0	.0000	0	103,555,856	0	126,689,381	.0000	
30-34	121,854	31,106,426	3917	593,864	137,938,627	.3917	593,864	137,938,627	.3917	715,718	.4234	715,718	169,045,053	0	169,045,053	.4234	
35-39	308,833	54,698,123	5646	1,382,534	226,447,056	.5646	1,382,534	226,447,056	.5646	1,691,367	.6016	1,691,367	281,145,179	0	281,145,179	.6016	
40-44	913,001	92,792,867	9839	3,484,361	333,262,030	.9839	3,484,361	333,262,030	.9839	4,397,362	1.0321	4,397,362	426,054,897	0	426,054,897	1.0321	
45-49	1,752,026	121,448,214	1,4426	4,633,729	299,911,317	1.4426	4,633,729	299,911,317	1.4426	6,385,755	1.5155	6,385,755	421,359,531	0	421,359,531	1.5155	
50-54	1,958,094	115,667,187	1,6756	4,178,986	220,637,536	1.6756	4,178,986	220,637,536	1.6756	6,117,080	1.8188	6,117,080	336,324,723	0	336,324,723	1.8188	
55-59	978,120	70,474,184	1,3879	1,897,824	121,384,446	1.3879	1,897,824	121,384,446	1.3879	2,875,944	1.4990	2,875,944	191,858,630	0	191,858,630	1.4990	
60-64	439,042	37,532,960	1,1760	686,648	55,161,448	1.1760	686,648	55,161,448	1.1760	1,125,690	1.2170	1,125,690	92,494,408	0	92,494,408	1.2170	
65-69	0	11,671,142	.0000	0	14,743,309	.0000	0	14,743,309	.0000	0	.0000	0	26,414,451	0	26,414,451	.0000	
70-74	0	2,762,921	.0000	0	2,376,963	.0000	0	2,376,963	.0000	0	.0000	0	5,139,864	0	5,139,864	.0000	
75-79	0	108,174	.0000	0	113,744	.0000	0	113,744	.0000	0	.0000	0	221,918	0	221,918	.0000	
80-84	0	0	.0000	0	0	.0000	0	0	.0000	0	.0000	0	0	0	0	.0000	
85+	0	0	.0000	0	0	.0000	0	0	.0000	0	.0000	0	0	0	0	.0000	
TOTAL	6,450,970	564,585,955	1,1426	16,857,946	1,539,099,525	1.0953	16,857,946	1,539,099,525	1.0953	23,308,916	2,103,685,480	23,308,916	2,103,685,480	1,1080	2,103,685,480	1,1080	

TABLE B: Disability Benefits One Year Term Cost By Service Groups as a Percent of Earnings
65% of Pay Disability Benefit - All Participants - Actuarial Valuation Assumptions

Service Group	M	A	L	E	F	E	M	A	L	E	Percentage	1YT Cost	Earnings	A	L	L	Percentage
0	41,713	7,112,956	.5864	156,143	26,931,243	.5798	156,143	26,931,243	.5798	197,856	34,044,199	197,856	34,044,199	.5812	34,044,199	.5812	
1	138,687	21,267,794	.6521	411,589	77,773,514	.5292	411,589	77,773,514	.5292	550,276	99,041,308	550,276	99,041,308	.5556	99,041,308	.5556	
2	158,546	22,685,514	.6989	611,808	90,626,509	.6751	611,808	90,626,509	.6751	770,354	113,312,023	770,354	113,312,023	.6799	113,312,023	.6799	
3	164,926	23,323,593	.7071	455,946	66,054,043	.6903	455,946	66,054,043	.6903	620,872	89,377,636	620,872	89,377,636	.6947	89,377,636	.6947	
4	160,966	18,576,304	.8665	611,446	77,810,430	.7858	611,446	77,810,430	.7858	772,412	96,386,734	772,412	96,386,734	.8014	96,386,734	.8014	
00-04	644,838	92,966,161	.7151	2,246,932	339,195,739	.6624	2,246,932	339,195,739	.6624	2,911,770	432,161,900	2,911,770	432,161,900	.6738	432,161,900	.6738	
05-09	756,826	79,110,321	.9567	2,468,048	271,929,964	.9076	2,468,048	271,929,964	.9076	3,224,874	351,040,285	3,224,874	351,040,285	.9187	351,040,285	.9187	
10-14	908,993	88,646,058	1.0254	2,860,623	270,948,083	1.0558	2,860,623	270,948,083	1.0558	3,769,616	359,594,141	3,769,616	359,594,141	1.0483	359,594,141	1.0483	
15-19	1,150,516	98,221,475	1.1713	3,324,965	282,289,744	1.1779	3,324,965	282,289,744	1.1779	4,475,481	380,511,219	4,475,481	380,511,219	1.1762	380,511,219	1.1762	
20-24	1,327,998	94,415,268	1.4066	3,134,943	212,102,799	1.4780	3,134,943	212,102,799	1.4780	4,462,941	306,518,067	4,462,941	306,518,067	1.4560	306,518,067	1.4560	
25-29	1,241,803	80,490,023	1.5428	2,186,816	121,726,924	1.7965	2,186,816	121,726,924	1.7965	3,428,619	202,216,947	3,428,619	202,216,947	1.6955	202,216,947	1.6955	
30-34	350,646	24,982,782	1.4036	530,825	31,795,394	1.6695	530,825	31,795,394	1.6695	881,471	56,778,176	881,471	56,778,176	1.5525	56,778,176	1.5525	
35-39	49,121	4,911,269	1.0002	99,991	7,679,061	1.3021	99,991	7,679,061	1.3021	149,112	12,590,330	149,112	12,590,330	1.1843	12,590,330	1.1843	
40+	229	842,598	.0272	4,803	1,431,817	.3354	4,803	1,431,817	.3354	5,032	2,274,415	5,032	2,274,415	.2212	2,274,415	.2212	
TOTAL	6,450,970	564,585,955	1,1426	16,857,946	1,539,099,525	1.0953	16,857,946	1,539,099,525	1.0953	23,308,916	2,103,685,480	23,308,916	2,103,685,480	1,1080	2,103,685,480	1,1080	

DISTRIBUTION F9

Teachers Retirement System of Louisiana
Distributions as of 07-01-1993

TABLE A: Disability Benefits One Year Term Cost By Age Groups as a Percent of Earnings
65% of Pay Disability Benefit - All Participants - Alternative Actuarial Assumptions

Age Group	M	A	L	E	F	E	M	A	L	E	Percentage	A	L	L	
	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage
00-19	0	0	.0000	128	33,673	.3801	128	33,673	.3801	128	33,673	.3801	100,210	26,903,752	.3725
20-24	8,592	3,390,232	.2534	91,618	23,513,520	.3896	91,618	23,513,520	.3896	100,210	26,903,752	.3725	528,958	126,689,381	.4175
25-29	64,916	23,133,525	.2806	464,042	103,555,856	.4481	464,042	103,555,856	.4481	528,958	126,689,381	.4175	949,025	169,045,053	.5614
30-34	104,414	31,106,426	.3357	844,611	137,938,627	.6123	844,611	137,938,627	.6123	949,025	169,045,053	.5614	2,374,291	281,145,179	.8445
35-39	252,900	54,698,123	.4624	2,121,391	226,447,056	.9368	2,121,391	226,447,056	.9368	2,374,291	281,145,179	.8445	4,894,982	426,054,897	1.1489
40-44	648,637	92,792,867	.6990	4,246,345	333,282,030	1.2742	4,246,345	333,282,030	1.2742	4,894,982	426,054,897	1.1489	6,805,956	421,359,531	1.6152
45-49	1,393,005	121,448,214	1.1470	5,412,951	299,911,317	1.8049	5,412,951	299,911,317	1.8049	6,805,956	421,359,531	1.6152	7,642,217	336,324,723	2.2723
50-54	2,110,067	115,667,187	1.8243	5,532,150	220,637,536	2.5071	5,532,150	220,637,536	2.5071	7,642,217	336,324,723	2.2723	5,152,583	191,858,630	2.6856
55-59	1,758,539	70,474,184	2.4953	3,394,044	121,394,446	2.7961	3,394,044	121,394,446	2.7961	1,601,255	92,494,408	1.7312	1,601,255	26,414,451	.0000
60-64	681,577	37,332,960	1.8257	919,678	55,161,448	1.6672	919,678	55,161,448	1.6672	0	0	.0000	0	5,139,884	.0000
65-69	0	11,671,142	.0000	0	14,743,309	.0000	0	14,743,309	.0000	0	0	.0000	0	221,918	.0000
70-74	0	2,762,921	.0000	0	2,376,963	.0000	0	2,376,963	.0000	0	0	.0000	0	0	.0000
75-79	0	108,174	.0000	0	113,744	.0000	0	113,744	.0000	0	0	.0000	0	0	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	7,022,647	564,585,955	1.2439	23,026,958	1,539,099,525	1.4961	23,026,958	1,539,099,525	1.4961	30,049,605	2,103,685,480	1.4284	30,049,605	2,103,685,480	1.4284

TABLE B: Disability Benefits One Year Term Cost By Service Groups as a Percent of Earnings Disability Benefits
Two Times Pay Death Benefit - All Participants - Alternative Actuarial Assumptions

Service Group	M	A	L	E	F	E	M	A	L	E	Percentage	A	L	L	
	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage
0	43,520	7,112,956	.6118	248,105	26,931,243	.9213	248,105	26,931,243	.9213	291,625	34,044,199	.8566	291,625	34,044,199	.8566
1	145,893	21,267,794	.6860	674,694	77,773,514	.8675	674,694	77,773,514	.8675	820,587	99,041,308	.8285	820,587	99,041,308	.8285
2	175,856	22,685,514	.7752	926,477	90,626,509	1.0223	926,477	90,626,509	1.0223	1,102,333	113,312,023	.9728	1,102,333	113,312,023	.9728
3	173,545	23,323,593	.7441	697,379	66,054,043	1.0558	697,379	66,054,043	1.0558	870,924	89,377,636	.9744	870,924	89,377,636	.9744
4	172,916	18,576,304	.9308	887,436	77,810,430	1.1405	887,436	77,810,430	1.1405	1,060,352	96,386,734	1.1001	1,060,352	96,386,734	1.1001
00-04	711,730	92,966,161	.7656	3,434,091	339,195,739	1.0124	3,434,091	339,195,739	1.0124	4,145,821	432,161,900	.9593	4,145,821	432,161,900	.9593
05-09	772,904	79,110,321	.9770	3,385,405	271,929,964	1.2450	3,385,405	271,929,964	1.2450	4,158,309	351,040,285	1.1846	4,158,309	351,040,285	1.1846
10-14	897,677	88,646,058	1.0127	3,772,252	270,948,083	1.3922	3,772,252	270,948,083	1.3922	4,669,929	359,594,141	1.2987	4,669,929	359,594,141	1.2987
15-19	1,112,909	98,221,475	1.1331	4,409,974	282,289,744	1.5622	4,409,974	282,289,744	1.5622	5,522,883	380,511,219	1.4514	5,522,883	380,511,219	1.4514
20-24	1,367,582	94,415,268	1.4485	4,407,724	212,102,799	1.9178	4,407,724	212,102,799	1.9178	5,435,306	306,518,067	1.7732	5,435,306	306,518,067	1.7732
25-29	1,512,450	80,490,023	1.8791	2,941,319	121,726,924	2.4163	2,941,319	121,726,924	2.4163	4,453,769	202,216,947	2.2025	4,453,769	202,216,947	2.2025
30-34	565,964	24,982,782	2.2654	856,700	31,795,394	2.6944	856,700	31,795,394	2.6944	1,422,664	56,778,176	2.5057	1,422,664	56,778,176	2.5057
35-39	80,928	4,911,269	1.6478	152,868	7,679,061	1.9907	152,868	7,679,061	1.9907	233,796	12,590,330	1.8569	233,796	12,590,330	1.8569
40+	503	842,598	.0597	6,625	1,431,817	.4627	6,625	1,431,817	.4627	7,128	2,274,415	.3134	7,128	2,274,415	.3134
TOTAL	7,022,647	564,585,955	1.2439	23,026,958	1,539,099,525	1.4961	23,026,958	1,539,099,525	1.4961	30,049,605	2,103,685,480	1.4284	30,049,605	2,103,685,480	1.4284

DISTRIBUTION F10

Louisiana State Employees' Retirement System
Distributions as of 07-01-1993

Table A: Present Value of Future Disability Benefits by Age Groups as a Percent of Earnings
65% of Pay Disability Benefit - All Participants - Actuarial Valuation Assumptions

Age Group	M A L E			F E M A L E			A L L		
	PVFB	Earnings	Percentage	PVFB	Earnings	Percentage	PVFB	Earnings	Percentage
00-19	6,113	393,286	1.5543	3,416	217,618	1.5697	9,529	610,904	1.5598
20-24	563,011	18,126,882	3.1059	548,273	16,723,000	3.2786	1,111,284	34,849,882	3.1888
25-29	2,572,091	46,983,508	5.4745	4,126,438	68,225,085	6.0483	6,698,529	115,208,593	5.8143
30-34	6,194,703	71,504,597	8.6634	11,266,566	117,940,609	9.5690	17,461,269	189,245,206	9.2268
35-39	11,581,274	94,618,566	12.2400	21,889,207	165,980,353	13.1878	33,470,481	260,598,919	12.8437
40-44	17,143,901	113,710,964	15.0767	27,315,776	173,338,977	15.7586	44,459,677	287,049,941	15.4885
45-49	18,322,677	111,428,858	16.4434	23,509,673	136,383,230	17.2380	41,832,350	247,812,088	16.8807
50-54	10,829,217	79,526,827	13.6171	13,621,552	92,041,542	14.7994	24,450,769	171,568,369	14.2513
55-59	4,504,844	56,553,172	7.9657	5,150,205	58,489,662	8.8053	9,655,049	115,042,834	8.3926
60-64	276,654	31,120,502	.8890	223,851	26,973,556	.8299	500,505	58,094,058	.8615
65-69	0	10,332,102	.0000	0	7,656,314	.0000	0	17,988,416	.0000
70-74	0	1,735,447	.0000	0	1,615,254	.0000	0	3,350,701	.0000
75-79	0	117,280	.0000	0	23,239	.0000	0	140,519	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	71,994,477	636,151,991	11.3172	107,654,913	865,408,439	12.4398	179,649,390	1,501,560,430	11.9642

TABLE B: Present Value of Future Disability Benefits by Service Groups as a Percent of Earnings
65% of Pay Disability Benefit - All Participants - Actuarial Valuation Assumptions

Service Group	M A L E			F E M A L E			A L L		
	PVFB	Earnings	Percentage	PVFB	Earnings	Percentage	PVFB	Earnings	Percentage
0	3,275,913	57,882,263	5.6596	5,535,229	86,422,209	6.4049	8,811,142	144,304,472	6.1059
1	2,350,724	29,994,808	7.8371	3,046,769	36,946,310	8.3006	5,417,493	66,941,118	8.0929
2	4,456,258	45,010,150	9.9006	7,535,797	71,193,645	10.5849	11,992,055	116,203,795	10.3198
3	4,667,368	42,870,818	10.8871	7,501,673	65,366,086	11.4764	12,169,041	108,236,904	11.2430
4	3,492,588	29,271,205	11.9318	4,336,147	34,285,631	12.6471	7,828,735	63,556,836	12.3177
00-04	18,242,851	205,029,244	8.8977	27,975,615	294,213,881	9.5086	46,218,466	499,243,125	9.2577
05-09	12,514,504	95,246,781	13.1390	18,916,436	128,615,438	14.7077	31,430,940	223,862,219	14.0403
10-14	18,947,026	137,959,602	13.7337	30,394,879	200,937,197	15.1266	49,341,905	338,896,799	14.5596
15-19	12,200,450	93,834,867	13.0020	18,734,214	132,758,601	14.1115	30,934,664	226,593,468	13.6521
20-24	6,507,174	54,950,141	11.8420	8,521,510	69,972,727	12.1783	15,028,684	124,922,868	12.0304
25-29	3,097,908	37,351,046	8.2940	2,876,516	33,654,921	8.5471	5,974,424	71,005,967	8.4140
30-34	448,918	9,993,148	4.4923	217,261	4,561,101	4.7633	666,179	14,554,249	4.5772
35-39	35,624	1,764,222	2.0192	17,703	555,847	3.1849	53,327	2,320,069	2.2985
40+	22	22,940	.0959	779	138,726	.5615	801	161,666	.4955
TOTAL	71,994,477	636,151,991	11.3172	107,654,913	865,408,439	12.4398	179,649,390	1,501,560,430	11.9642

DISTRIBUTION F11

Louisiana State Employees' Retirement System
Distributions as of 07-01-1993

Table A: Present Value Of Future Disability Benefits by Age Groups as a Percent of Earnings
65% of Pay Disability Benefit - All Participants - Alternative Actuarial Assumptions

Age Group	M A L E			F E M A L E			A L L		
	PVFB	Earnings	Percentage	PVFB	Earnings	Percentage	PVFB	Earnings	Percentage
00-19	10,904	393,286	2.7725	9,852	217,618	4.5272	20,756	610,904	3.3976
20-24	786,317	18,126,882	4.3379	1,144,877	16,723,000	6.8461	1,931,194	34,849,882	5.5415
25-29	3,022,170	46,983,508	6.4324	7,080,735	68,225,085	10.3785	10,102,905	115,208,593	8.7692
30-34	6,339,763	71,504,597	8.8662	16,806,174	117,740,609	14.2739	23,145,937	189,245,206	12.2307
35-39	11,078,506	94,618,566	11.7086	29,022,507	165,980,353	17.4855	40,101,013	260,598,919	15.3880
40-44	16,348,566	113,710,964	14.3773	33,418,031	173,538,977	19.2790	49,766,597	287,049,941	17.3373
45-49	17,845,593	111,428,858	16.0151	26,963,964	136,383,230	19.7707	44,809,457	247,812,088	18.0820
50-54	12,207,595	79,526,827	15.3503	16,223,051	92,041,542	17.6258	28,430,646	171,568,369	16.5710
55-59	6,669,628	56,553,172	11.7936	7,081,504	58,489,662	12.1073	13,751,132	115,042,834	11.9531
60-64	1,358,498	31,120,502	4.3653	954,751	26,973,556	3.5396	2,313,249	58,094,058	3.9819
65-69	-8	10,332,102	-0.0001	-1	7,656,314	-0.0000	-10	17,988,416	-0.0001
70-74	0	1,735,447	-0.0000	0	1,615,254	-0.0000	0	3,350,701	-0.0000
75-79	0	117,280	-0.0000	0	23,239	-0.0000	0	140,519	-0.0000
80-84	0	0	-0.0000	0	0	-0.0000	0	0	-0.0000
85+	0	0	-0.0000	0	0	-0.0000	0	0	-0.0000
TOTAL	75,667,431	636,151,991	11.8946	138,705,444	865,408,439	16.0277	214,372,875	1,501,560,430	14.2767

TABLE B: Present Value of Future Disability Benefits by Service Groups as a Percent of Earnings
65% of Pay Disability Benefit - All Participants - Alternative Actuarial Assumptions

Service Group	M A L E			F E M A L E			A L L		
	PVFB	Earnings	Percentage	PVFB	Earnings	Percentage	PVFB	Earnings	Percentage
0	3,647,160	57,882,263	6.3010	7,782,438	86,422,209	9.0051	11,429,598	144,304,472	7.9205
1	2,504,256	29,994,808	8.6824	4,295,063	36,946,310	11.6251	6,899,319	66,941,118	10.3065
2	4,869,273	45,010,150	10.8182	10,304,192	71,193,645	14.4735	15,173,465	116,203,795	13.0576
3	5,048,121	42,870,818	11.7752	10,216,876	65,366,086	15.6302	15,284,997	108,236,904	14.1033
4	3,782,110	29,271,205	12.8526	5,792,058	34,285,631	16.8935	9,554,168	63,556,836	15.0325
00-04	19,930,920	205,029,244	9.7210	38,390,627	294,213,881	13.0485	58,321,547	499,243,125	11.6820
05-09	13,835,817	95,246,781	14.1063	24,701,457	128,615,438	19.2057	38,137,274	223,862,219	17.0360
10-14	19,746,574	137,959,602	14.3133	38,746,177	200,937,197	19.2827	58,492,751	338,896,799	17.2598
15-19	12,259,623	93,834,867	13.0651	23,126,700	132,758,601	17.4201	35,386,323	226,593,468	15.6167
20-24	6,459,605	54,950,141	11.7554	10,141,399	69,972,727	14.4934	16,601,004	124,922,868	13.2890
25-29	3,199,521	37,351,046	8.5661	3,306,042	33,654,921	9.8234	6,505,563	71,005,967	9.1620
30-34	560,985	9,993,148	5.6137	262,372	4,561,101	5.7524	823,357	14,554,249	5.6572
35-39	74,262	1,764,222	4.2093	26,866	555,847	4.6333	101,128	2,320,069	4.3568
40+	124	22,940	.5405	3,804	138,726	2.7421	3,928	161,666	2.4297
TOTAL	75,667,431	636,151,991	11.8946	138,705,444	865,408,439	16.0277	214,372,875	1,501,560,430	14.2767

DISTRIBUTION F12

Teachers Retirement System of Louisiana
Distributions as of 07-01-1993

Table A: Present Value Of Future Disability Benefits by Age Groups as a Percent of Earnings
65% of Pay Disability Benefit - All Participants - Actuarial Valuation Assumptions

Age Group	M	A	L	E	F	E	M	A	L	E	PVFB	Earnings	Percentage	A	L	L	E	PVFB	Earnings	Percentage
00-19	0			0	2,033						2,033	33,673	6.0375				2,033	33,673	6.0375	
20-24	277,347			3,390,232	2,000,151						2,277,498	23,513,520	8.5064				2,277,498	26,903,752	8.4654	
25-29	2,630,166			23,133,525	12,323,406						15,153,572	103,555,856	12.0934				15,153,572	126,689,381	11.9612	
30-34	4,481,823			31,106,426	18,810,318						25,994,794	137,938,627	15.5960				25,994,794	169,045,053	15.3774	
35-39	8,719,282			54,698,123	38,810,318						47,529,600	226,447,056	17.1388				47,529,600	281,145,179	16.9057	
40-44	15,227,947			92,792,867	59,066,431						74,294,378	333,262,030	17.7237				74,294,378	426,054,897	17.4377	
45-49	17,989,600			121,448,214	49,927,094						67,916,694	299,911,317	16.6473				67,916,694	421,359,531	16.1185	
50-54	11,490,517			115,667,187	25,583,591						37,074,108	220,637,536	11.5943				37,074,108	336,324,723	11.0233	
55-59	4,498,788			70,474,184	8,680,743						13,179,531	121,384,446	7.1514				13,179,531	191,858,630	6.8694	
60-64	912,078			37,332,960	1,393,279						2,305,357	55,161,448	2.5258				2,305,357	92,494,408	2.4924	
65-69	0			11,671,142	17						17	14,743,309	.0001				17	26,414,451	.0001	
70-74	0			2,762,921	0						0	2,376,963	.0000				0	5,139,884	.0000	
75-79	0			108,174	0						0	113,744	.0000				0	221,918	.0000	
80-84	0			0	0						0	0	.0000				0	0	.0000	
85+	0			0	0						0	0	.0000				0	0	.0000	
TOTAL	66,227,548			564,585,955	219,500,034						285,727,582	2,103,685,480	13.5822				285,727,582	2,103,685,480	13.5822	

TABLE B: Present Value of Future Disability Benefits by Service Groups as a Percent of Earnings
65% of Pay Disability Benefit - All Participants - Actuarial Valuation Assumptions

Service Group	M	A	L	E	F	E	M	A	L	E	PVFB	Earnings	Percentage	A	L	L	E	PVFB	Earnings	Percentage
0	770,277			7,112,956	3,245,926						4,016,203	26,931,243	12.0526				4,016,203	34,044,199	11.7970	
1	2,425,204			21,267,794	9,519,506						11,944,710	77,773,514	12.2400				11,944,710	99,041,308	12.0603	
2	2,948,873			22,685,514	13,163,773						16,112,646	90,626,509	14.5253				16,112,646	113,312,023	14.2197	
3	3,344,964			23,323,593	10,320,710						13,665,674	66,054,043	15.6246				13,665,674	89,377,636	15.2898	
4	2,703,874			18,576,304	12,925,734						15,629,608	77,810,430	16.6118				15,629,608	96,366,734	16.2155	
00-04	12,193,192			92,966,161	49,175,649						61,368,841	339,195,739	14.6977				61,368,841	432,161,900	14.2004	
05-09	11,785,540			79,110,321	47,339,630						59,125,170	271,929,964	17.4088				59,125,170	351,040,285	16.8428	
10-14	12,260,274			88,646,058	42,898,562						55,158,836	270,948,083	15.8328				55,158,836	359,594,141	15.3392	
15-19	12,263,412			98,221,475	39,949,059						52,212,471	282,289,744	14.1518				52,212,471	380,511,219	13.7217	
20-24	9,961,236			94,415,268	26,160,061						36,121,317	212,102,799	12.3337				36,121,317	306,518,067	11.7844	
25-29	6,266,271			80,490,023	11,537,025						17,803,296	121,726,924	9.4778				17,803,296	202,216,947	8.8041	
30-34	1,380,123			24,982,782	2,164,380						3,544,503	31,795,394	6.8072				3,544,503	56,778,176	6.2427	
35-39	117,248			4,911,269	268,335						365,583	7,679,061	3.4944				365,583	12,590,330	3.0625	
40+	117,248			842,598	7,333						7,565	1,431,817	.5121				7,565	2,274,415	.3326	
TOTAL	66,227,548			564,585,955	219,500,034						285,727,582	2,103,685,480	13.5822				285,727,582	2,103,685,480	13.5822	

DISTRIBUTION F13

Teachers Retirement System of Louisiana
Distributions as of 07-01-1993

Table A: Present Value of Future Disability Benefits by Age Groups as a Percent of Earnings
65% of Pay Disability Benefit - All Participants - Alternative Actuarial Assumptions

Age Group	M A L E			F E M A L E			A L L		
	PVFB	Earnings	Percentage	PVFB	Earnings	Percentage	PVFB	Earnings	Percentage
00-19	0	0	.0000	3,559	33,673	10.5693	3,559	33,673	10.5693
20-24	296,550	3,390,232	8.7472	3,081,694	23,513,520	13.1061	3,378,244	26,903,752	12.5568
25-29	2,594,545	23,133,525	11.2155	17,593,392	103,555,856	16.9893	20,187,937	126,689,381	15.9350
30-34	4,166,413	31,106,426	13.3941	27,918,116	137,938,627	20.2395	32,084,529	169,045,053	18.9799
35-39	8,500,029	54,698,123	15.5399	50,473,853	226,447,056	22.2895	58,973,882	281,145,179	20.9763
40-44	15,764,069	92,792,667	16.9884	76,240,648	333,262,030	22.8771	92,004,717	426,054,697	21.5946
45-49	20,742,068	121,448,214	17.0789	66,373,381	299,911,317	22.1310	87,115,449	421,359,331	20.6748
50-54	16,480,980	115,667,187	14.2486	38,509,884	220,657,536	17.4523	54,990,864	336,324,723	16.3505
55-59	7,593,214	70,474,184	10.7745	13,709,866	121,384,446	11.2946	21,303,080	191,858,630	11.1035
60-64	1,459,406	37,332,960	3.9092	1,898,122	55,161,448	3.4410	3,357,528	92,494,408	3.6300
65-69	7	11,671,142	.0001	-4	14,743,309	.0000	2	26,414,451	.0000
70-74	0	2,762,921	.0000	0	2,376,963	.0000	0	5,139,884	.0000
75-79	0	108,174	.0000	0	113,744	.0000	0	221,918	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	77,597,281	564,585,955	13.7441	295,802,510	1,539,099,525	19.2192	373,399,791	2,103,685,480	17.7498

TABLE B: Present Value of Future Disability Benefits by Service Groups as a Percent of Earnings
Two Times Pay Death Benefit - All Participants - Alternative Actuarial Assumptions

Service Group	M A L E			F E M A L E			A L L		
	PVFB	Earnings	Percentage	PVFB	Earnings	Percentage	PVFB	Earnings	Percentage
0	833,936	7,112,956	11.7242	4,448,561	26,931,243	16.5182	5,282,497	34,044,199	15.5166
1	2,665,746	21,267,794	12.5342	13,133,685	77,773,514	16.8871	15,799,431	99,041,308	15.9524
2	3,261,881	22,685,514	14.3787	17,864,076	90,626,509	19.7118	21,125,957	113,312,023	18.6441
3	3,620,294	23,323,593	15.5220	13,974,801	66,054,043	21.1566	17,595,095	69,377,636	19.6862
4	3,038,785	18,576,304	16.3584	17,383,398	77,810,430	22.3407	20,422,183	96,386,734	21.1878
00-04	13,420,642	92,966,161	14.4361	66,804,521	339,195,739	19.6950	80,225,163	432,161,900	18.5637
05-09	13,326,156	79,110,321	16.8450	63,234,645	271,929,964	23.2503	76,550,801	351,040,285	21.8068
10-14	13,751,054	88,646,058	15.5123	57,099,502	270,948,083	21.0740	70,850,656	359,594,141	19.7030
15-19	13,781,583	98,221,475	14.0311	52,837,838	282,289,744	18.7176	66,619,421	380,511,219	17.5079
20-24	11,994,623	94,415,268	12.7041	35,191,719	212,102,799	16.5918	47,186,342	306,518,067	15.3943
25-29	8,866,331	80,490,023	11.0154	16,827,573	121,726,924	13.8240	25,693,904	202,216,947	12.7061
30-34	2,264,893	24,982,782	9.0658	3,416,635	31,795,394	10.7457	5,681,528	56,778,176	10.0065
35-39	191,497	4,911,269	3.8991	389,209	7,679,061	5.0684	580,706	12,590,330	4.6123
40+	502	842,598	.0596	10,768	1,431,817	.7521	11,270	2,274,415	.4955
TOTAL	77,597,281	564,585,955	13.7441	295,802,510	1,539,099,525	19.2192	373,399,791	2,103,685,480	17.7498

Section G - Existing PreRetirement Disability Benefits

Using existing databases from the LASERS and Teachers' Retirement systems, determine the benefits to the employee and costs to the state of the existing disability retirement benefits in both systems.

Sections

Louisiana State Employees' Retirement System Survivor's Benefits and Teachers' Retirement System of Louisiana Survivor's Benefits describe the current disability benefits provided in these retirement systems

Costs of Disability Benefits in Current Retirement Systems provides expected values of the current system.

Louisiana Teachers' Retirement System Disability Benefits

Teachers Formula: Regular, University & LSU employees.

If eligible for service retirement, the disability benefit equals the retirement benefit based on service (including unused sick leave) and earnings at disability. A rate of 2.5% is only used if the member is eligible based on age and service (55/25, 65/20 or 30 years).

If the member is eligible for the 2% rate (eligibility for early retirement at disability and eligible for the 2.5% rate at age 60 with years of disability applied for retirement eligibility (but not benefits), the benefit is recalculated (at age 60) using the 2.5% rate.

If not eligible for service retirement, the disability benefit is the greater of (1) or (2):

1. Seventy-five percent of the projected retirement benefit that would have been payable at age 60 had the member continued in service without change in compensation using a 2.5% factor, not to exceed 50% of Final Average Earnings.
2. The retirement allowance using a 2.5% factor for actual service and earnings at disability.

If a disability retiree has a minor child, an additional benefit equal to 50% of his disability benefit is paid so long as he has a dependent minor child, provided that a factor of 2 ½% is used to calculate the additional benefit even if the disability benefit was computed using a 2% factor, provided the total benefit does not exceed 75% of Final Average Earnings.

If the person on disability dies before reaching age sixty, one year of service will be credited for each year he was disabled to determine benefit eligibility, but not for benefit computation.

School Plan A Employees:

If eligible for service retirement at the time of disability, the normal retirement allowance is paid. Otherwise, 3% of Final Average Earnings times years of creditable service with amount not less than 60% of Final Average Earnings nor greater than 100% of Final Average Earnings.

School Plan B.

If eligible for service retirement at the time of disability, the normal retirement allowance is paid. Otherwise, 2% of Final Average Earnings times years of creditable service with amount not less than 30% of Final Average Earnings nor greater than 75% of Final Average Earnings.

Louisiana State Employees' Retirement System Disability Retirement Benefits

Regular, Corrections, & Wildlife Employees:

Eligible after 10 years of service. Disability benefit equals retirement benefit based on service and earnings at disability and commencing immediately.

Judges & Legislators: Eligible after 10 years. Benefit above but not less than 50% of current salary.

Wildlife: Partial disabilities not eligible for Regular disability benefit receive 75% of Regular disability benefit. Line-of-duty disabilities receive 60% x Final Average Earnings.

Costs of Disability Benefits in Current Retirement Systems

We measured the expected benefit and the present value of the expected benefit of the current preretirement disability benefits in the Teachers Retirement System and in the LASERS.

Please refer to the Introduction for the actuarial methodology and definitions and Appendix 1 for the actuarial assumptions.

Exhibit G1 shows the expected values of the current preretirement disability benefit if a person becomes disabled while an employee covered either by the LASERS or the Teachers' Retirement System. The required contribution to the pension plans with respect to this benefit is 1.08% of payroll. If this benefit was financed in a stand alone plan, the cost could equal (or exceed) 1.29% of payroll if costs were determined on a "1 year term cost basis" and 2.38% of payroll if determined on an aggregate cost basis.

Distributions D2 through D5 are age-service distributions of 1 year term costs of the current plans' preretirement death benefit. Distribution D2 is a distribution of the LASERS based on the current actuarial assumptions and shows the average cost per participant. The average term cost per employee is \$193 and ranges from \$1 an employee to \$2,332 for male employees 65-69. Distribution D5 is a distribution of the Teachers' Retirement System based on the alternative actuarial assumptions and shows the average cost per plan participant. The average term cost is \$206 and ranges from \$3 to \$801.

Distributions D6, D7, and D8 are age distributions of the one year term cost

Distributions D9 and D10 are sample age-service distributions of the present value of future benefits of the current plans' preretirement death benefits. Distribution D9 is a distribution of the LASERS based on the current actuarial assumptions and shows the present value of future benefits as a percent of earnings. It shows that the benefits are most valuable to males aged 45-64 where the value for all future preretirement death benefits is 20% of earnings. This percentage would be even higher under the alternative actuarial assumptions. Distribution D10 is a distribution of the Teachers Retirement System based on the current actuarial assumptions and shows the present value of future benefits as a percent of earnings. It shows that the benefits are most valuable to males aged 35-49 where the value for all future preretirement death benefits averages to be 17% of earnings.

These distributions may be viewed as a tool for determining the value of the benefit to the employee or as a tool for determining the cost of an employee's benefit.

Exhibit G1

State of Louisiana Retirement Systems
Cost of Current Disability Benefits

	LASERS		Teachers		Total	
Number of Participants	66,943		84,612		151,555	
Compensation	1,548,407,194		2,170,167,043		3,718,574,237	
Alternative Cost Measures Current Assumptions						
Present Value of Future Benefits	160,751,102		376,027,435		536,778,537	
Present Value of Future Salary	12,467,371,446		20,668,476,440		33,135,847,886	
Accrued Liability	91,988,743		226,273,675		318,262,418	
1 Year Term Cost	8,954,741	0.58%	25,456,609	1.17%	34,411,350	0.93%
Aggregate Cost	19,964,767	1.29%	39,482,463	1.82%	60,238,411	1.62%
Unit Credit Normal Cost	7,124,555	0.46%	17,674,508	0.81%	24,799,063	0.67%
Amortization	4,432,397	0.29%	10,902,800	0.50%	15,335,197	0.41%
"Pension Funding"	11,556,952	0.75%	28,577,308	1.32%	40,134,260	1.08%
Alternative Cost Measures Alternative Assumptions						
Present Value of Future Benefits	232,364,914		545,177,374		777,542,288	
Present Value of Future Salary	12,314,640,036		20,330,863,063		32,645,503,099	
Accrued Liability	132,730,152		325,496,987		458,227,139	
1 Year Term Cost	13,701,530	0.88%	34,342,487	1.58%	48,044,017	1.29%
Aggregate Cost	29,216,892	1.89%	58,193,593	2.68%	88,568,055	2.38%
Unit Credit Normal Cost	10,331,946	0.67%	24,836,203	1.14%	35,168,149	0.95%
Amortization	6,395,487	0.41%	15,683,789	0.72%	22,079,275	0.59%
"Pension Funding"	16,727,433	1.08%	40,519,992	1.87%	57,247,424	1.54%

DISTRIBUTION G2

Louisiana State Employees' Retirement System
Distributions as of 07-01-1993

TABLE A: Disability Benefits One Year Term Cost By Age Groups
Current Pension Benefit - All Participants - Actuarial Valuation Assumptions

Age Group	Count	M A L E Total 1YT Cost	Average 1YT Cost	F E M A L E Count	Total 1YT Cost	Average 1YT Cost	A L L Total 1YT Cost	Average 1YT Cost
00-19	32	0	0	18	0	0	0	0
20-24	1,272	0	0	1,136	0	0	0	0
25-29	2,784	-3	0	3,631	12	0	8	0
30-34	3,633	17,175	5	6,124	28,673	5	45,848	5
35-39	4,174	121,651	29	7,663	222,050	29	343,701	29
40-44	4,353	380,236	87	7,445	568,912	76	949,148	80
45-49	3,920	885,976	226	5,894	1,025,743	174	1,911,719	195
50-54	2,801	1,383,941	494	4,041	1,430,434	354	2,814,375	411
55-59	1,982	1,239,991	626	2,668	1,219,105	457	2,459,096	529
60-64	1,096	206,054	188	1,227	178,237	145	384,291	165
65-69	332	27,556	83	357	18,926	53	46,482	67
70-74	57	0	0	76	0	0	0	0
75-79	5	0	0	2	0	0	0	0
80-84	0	0	0	0	0	0	0	0
85+	0	0	0	0	0	0	0	0
TOTAL	26,441	4,262,576	161	40,502	4,692,092	116	8,954,668	134

TABLE B: Disability Benefits One Year Term Cost By Service Groups
Current Pension Benefit - All Participants - Actuarial Valuation Assumptions

Service Group	Count	M A L E Total 1YT Cost	Average 1YT Cost	F E M A L E Count	Total 1YT Cost	Average 1YT Cost	A L L Total 1YT Cost	Average 1YT Cost
0	3,582	197	0	5,262	0	0	197	0
1	1,637	2	0	2,174	0	0	2	0
2	2,285	2,388	1	3,826	511	0	2,899	0
3	2,120	346	0	3,613	416	0	6,111	0
4	1,377	2,512	2	1,724	13	0	2,525	1
00-04	11,001	5,445	0	16,399	940	0	6,385	0
05-09	4,207	57,734	14	6,180	68,782	11	126,516	12
10-14	5,086	919,895	181	8,864	1,205,300	136	2,125,195	152
15-19	3,038	945,560	311	5,121	1,301,400	254	2,246,960	275
20-24	1,655	904,898	547	2,570	1,105,097	430	2,009,995	476
25-29	1,136	1,040,149	914	1,183	834,267	705	1,874,416	808
30-34	266	340,078	1,278	1,159	156,813	984	496,891	1,169
35-39	47	48,467	1,031	22	17,469	796	65,936	956
40+	1	350	350	4	2,024	506	2,374	475
TOTAL	26,441	4,262,576	161	40,502	4,692,092	116	8,954,668	134

DISTRIBUTION G3

Louisiana State Employees' Retirement System
Distributions as of 07-01-1993

TABLE A: Disability Benefits One Year Term Cost By Age Groups
Current Pension Benefit - All Participants - Alternative Study Assumptions

Age Group	M	A	L	E	F	E	M	A	L	E	A	L	L	Average 1YT Cost
00-19	32	0	0	0	18	0	0	0	0	0	0	0	0	0
20-24	1,272	0	0	0	1,136	0	0	0	0	0	0	0	0	0
25-29	2,784	1,208	0	0	3,831	2,706	0	0	0	0	0	0	0	0
30-34	3,633	39,421	11	11	6,124	113,750	19	19	19	19	19	16	16	16
35-39	4,174	140,910	34	34	7,683	493,864	64	64	64	64	64	54	54	54
40-44	4,353	383,640	88	88	7,445	1,006,481	135	135	135	135	135	118	118	118
45-49	3,920	822,895	210	210	5,894	1,437,638	244	244	244	244	244	230	230	230
50-54	2,801	1,323,929	473	473	4,941	1,729,070	428	428	428	428	428	446	446	446
55-59	1,982	1,594,353	804	804	2,668	1,653,496	620	620	620	620	620	698	698	698
60-64	1,096	1,225,552	1,118	1,118	1,227	980,051	799	799	799	799	799	949	949	949
65-69	332	450,479	1,357	1,357	357	292,048	818	818	818	818	818	1,078	1,078	1,078
70-74	57	10,239	180	180	76	0	0	0	0	0	0	77	77	77
75-79	5	0	0	0	2	0	0	0	0	0	0	0	0	0
80-84	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85+	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	26,441	5,992,626	227	227	40,502	7,709,104	190	190	190	190	190	66,943	66,943	205

TABLE B: Disability Benefits One Year Term Cost By Service Groups
Current Pension Benefit - All Participants - Alternative Study Assumptions

Service Group	M	A	L	E	F	E	M	A	L	E	A	L	L	Average 1YT Cost
0	3,582	820	0	0	5,262	0	0	0	0	0	0	820	820	0
1	1,637	5	0	0	2,174	0	0	0	0	0	0	5	5	0
2	2,285	2,400	1	1	3,826	737	0	0	0	0	0	3,137	3,137	1
3	2,120	3,375	0	0	3,413	764	0	0	0	0	0	1,139	1,139	0
4	1,377	2,932	2	2	1,724	44	0	0	0	0	0	2,976	2,976	1
00-04	11,001	6,532	1	1	16,399	1,545	0	0	0	0	0	8,077	8,077	0
05-09	4,207	96,056	23	23	6,180	127,367	21	21	21	21	21	225,423	225,423	22
10-14	5,088	1,356,569	267	267	8,664	2,092,253	236	236	236	236	236	3,448,822	3,448,822	267
15-19	3,038	1,288,575	424	424	2,188,927	2,188,927	427	427	427	427	427	3,477,502	3,477,502	426
20-24	1,655	1,223,743	739	739	2,570	1,771,285	689	689	689	689	689	2,995,028	2,995,028	709
25-29	1,138	1,296,922	1,140	1,140	1,183	1,233,180	1,042	1,042	1,042	1,042	1,042	2,530,102	2,530,102	1,050
30-34	266	564,036	2,120	2,120	159	238,366	1,499	1,499	1,499	1,499	1,499	802,422	802,422	1,888
35-39	47	155,641	3,312	3,312	22	43,146	1,941	1,941	1,941	1,941	1,941	198,787	198,787	2,881
40+	1	2,552	2,552	2,552	4	13,015	3,254	3,254	3,254	3,254	3,254	15,967	15,967	3,113
TOTAL	26,441	5,992,626	227	227	40,502	7,709,104	190	190	190	190	190	66,943	66,943	205

DISTRIBUTION G4

Teachers Retirement System of Louisiana
Distributions as of 07-01-1993

TABLE A: Disability Benefits One Year Term Cost By Age Groups
Current Pension Benefit - All Participants - Actuarial Valuation Assumptions

Age Group	M	A	L	E	F	E	M	A	L	E	A	L	L
	Count	Total 1YT Cost	Average 1YT Cost	Count	Total 1YT Cost	Average 1YT Cost	Count	Total 1YT Cost	Average 1YT Cost	Count	Total 1YT Cost	Average 1YT Cost	
00-19	0	0	0	5	0	0	5	0	0	5	0	0	
20-24	204	0	0	1,445	0	0	1,445	0	0	1,649	0	0	
25-29	1,133	100	0	5,499	683	0	6,632	783	0	8,632	783	0	
30-34	1,362	71,301	52	7,299	364,049	50	8,661	435,350	50	12,612	1,244,937	99	
35-39	1,992	241,249	121	10,620	1,003,688	95	16,851	3,606,421	214	15,419	5,615,277	364	
40-44	2,922	788,921	270	13,929	2,817,500	202	11,656	6,501,223	558	6,822	4,349,040	638	
45-49	3,322	1,645,477	495	12,097	3,969,800	328	3,242	2,858,361	882	875	846,367	967	
50-54	2,852	2,131,277	747	8,804	4,369,946	496	180	0	0	180	0	0	
55-59	1,670	1,431,634	857	5,152	2,917,406	566	8	0	0	8	0	0	
60-64	845	1,125,333	1,332	2,397	1,733,028	723	0	0	0	0	0	0	
65-69	253	348,958	1,379	622	497,409	800	0	0	0	0	0	0	
70-74	70	0	0	110	0	0	0	0	0	0	0	0	
75-79	4	0	0	4	0	0	0	0	0	0	0	0	
80-84	0	0	0	0	0	0	0	0	0	0	0	0	
85+	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL	16,629	7,784,250	468	67,983	17,673,509	260	84,612	25,457,759	301				

TABLE B: Disability Benefits One Year Term Cost By Service Groups
Current Pension Benefit - All Participants - Actuarial Valuation Assumptions

Service Group	M	A	L	E	F	E	M	A	L	E	A	L	L
	Count	Total 1YT Cost	Average 1YT Cost	Count	Total 1YT Cost	Average 1YT Cost	Count	Total 1YT Cost	Average 1YT Cost	Count	Total 1YT Cost	Average 1YT Cost	
0	503	0	0	2,487	0	0	2,990	0	0	2,990	0	0	
1	972	0	0	4,313	0	0	5,285	0	0	5,285	0	0	
2	935	0	0	4,882	0	0	5,817	0	0	5,817	0	0	
3	933	172	0	3,498	240	0	4,431	412	0	4,431	412	0	
4	725	42,865	59	4,150	152,900	37	4,855	195,765	40	23,378	196,177	8	
00-04	4,068	43,037	11	19,310	153,140	8	16,111	2,698,258	167	14,252	4,245,773	298	
05-09	2,598	652,623	251	13,513	2,045,633	151	13,639	5,250,456	385	13,639	5,417,958	560	
10-14	2,468	994,289	403	11,784	3,251,484	276	9,671	5,133,377	900	5,704	5,133,377	900	
15-19	2,617	1,351,523	516	11,022	3,898,933	354	1,493	1,842,815	1,234	1,493	595,612	1,909	
20-24	2,332	1,651,914	708	7,339	3,766,044	513	312	77,333	1,487	312	77,333	1,487	
25-29	1,868	2,013,122	1,078	3,836	3,120,255	813	52	0	0	52	0	0	
30-34	561	819,095	1,460	209	1,023,720	1,098	84,612	25,457,759	301	84,612	25,457,759	301	
35-39	103	235,374	2,285	360	340,238	1,724	38	54,062	1,423	38	54,062	1,423	
40+	14	23,271	1,662	67,983	17,673,509	260							
TOTAL	16,629	7,784,250	468	67,983	17,673,509	260	84,612	25,457,759	301				

DISTRIBUTION G5

Teachers Retirement System of Louisiana
Distributions as of 07-01-1993

TABLE A: Disability Benefits One Year Term Cost By Age Groups
Current Pension Benefit - All Participants - Alternative Study Assumptions

Age Group	M A L E			F E M A L E			A L L		
	Count	Total 1YT Cost	Average 1YT Cost	Count	Total 1YT Cost	Average 1YT Cost	Count	Total 1YT Cost	Average 1YT Cost
00-19	0	0	0	5	0	0	5	0	0
20-24	204	0	0	1,445	285	0	1,649	285	0
25-29	1,133	10,163	9	5,999	117,125	21	6,632	127,288	19
30-34	1,362	54,934	40	7,299	496,484	68	8,661	551,418	64
35-39	1,992	196,049	98	10,620	1,525,831	144	12,612	1,721,880	137
40-44	2,922	560,714	192	13,929	3,373,479	242	16,851	3,934,193	233
45-49	3,322	1,331,473	401	12,097	4,677,542	387	15,419	6,009,015	390
50-54	2,852	2,447,692	858	8,804	5,789,550	658	11,656	8,237,242	707
55-59	1,670	2,744,748	1,644	5,152	4,824,125	936	6,822	7,568,873	1,109
60-64	845	2,041,516	2,416	2,397	2,639,262	1,101	3,242	4,680,778	1,444
65-69	253	697,233	2,756	622	814,643	1,310	875	1,511,876	1,728
70-74	70	0	0	110	0	0	180	0	0
75-79	4	0	0	4	0	0	8	0	0
80-84	0	0	0	0	0	0	0	0	0
85+	0	0	0	0	0	0	0	0	0
TOTAL	16,629	10,084,522	606	67,983	24,256,326	357	84,612	34,342,848	406

TABLE B: Disability Benefits One Year Term Cost By Service Groups
Current Pension Benefit - All Participants - Alternative Study Assumptions

Service Group	M A L E			F E M A L E			A L L		
	Count	Total 1YT Cost	Average 1YT Cost	Count	Total 1YT Cost	Average 1YT Cost	Count	Total 1YT Cost	Average 1YT Cost
0	503	0	0	2,487	0	0	2,990	0	0
1	972	0	0	4,313	0	0	5,285	0	0
2	935	0	0	4,882	0	0	5,817	0	0
3	933	119	0	3,498	340	0	4,431	459	0
4	725	42,634	59	4,130	227,277	55	4,855	269,911	56
00-04	4,068	42,733	11	19,310	227,617	12	23,378	270,370	12
05-09	2,598	662,318	255	13,513	2,825,256	209	16,111	3,487,574	216
10-14	2,468	1,017,493	412	11,784	3,912,425	332	14,252	4,929,918	346
15-19	2,617	1,451,324	555	11,022	4,952,818	449	13,639	6,404,142	470
20-24	2,332	2,002,048	859	7,339	5,029,794	685	9,671	7,031,842	727
25-29	1,868	2,942,033	1,575	3,836	4,709,893	1,228	5,704	7,651,926	1,342
30-34	561	1,478,608	2,636	932	1,857,614	1,993	1,493	3,336,222	2,235
35-39	103	441,586	4,287	209	641,199	3,068	312	1,082,785	3,470
40+	14	46,359	3,311	38	101,710	2,677	52	148,069	2,847
TOTAL	16,629	10,084,522	606	67,983	24,256,326	357	84,612	34,342,848	406

DISTRIBUTION G6

Louisiana State Employees' Retirement System
Distributions as of 07-01-1993

TABLE A: Disability Benefits One Year Term Cost By Age Groups as a Percent of Earnings
Current Plan - All Participants - Actuarial Valuation Assumptions

Age Group	M A L E			F E M A L E			A L L		
	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage
00-19	0	393,286	.0000	0	217,618	.0000	0	610,904	.0000
20-24	0	18,126,882	.0000	0	16,723,000	.0000	0	34,849,882	.0000
25-29	-3	46,963,508	.0000	12	68,225,085	.0000	8	115,208,593	.0000
30-34	17,175	71,504,597	.0240	28,673	117,740,609	.0244	45,848	189,245,206	.0242
35-39	121,651	94,618,566	.1286	222,050	165,980,353	.1338	343,701	260,598,919	.1319
40-44	380,236	113,710,964	.3344	568,912	173,338,977	.3282	949,148	287,049,941	.3307
45-49	885,976	111,428,658	.7951	1,025,743	136,383,230	.7521	1,911,719	247,812,088	.7714
50-54	1,383,941	79,526,827	1.7402	1,430,434	92,041,542	1.5341	2,814,375	171,568,369	1.6404
55-59	1,239,991	56,553,172	2.1926	1,219,105	58,489,662	2.0843	2,439,096	115,042,834	2.1375
60-64	206,054	31,120,502	.6621	178,237	26,973,556	.6608	384,291	58,094,058	.6615
65-69	27,556	10,332,102	.2667	18,926	7,656,314	.2472	46,482	17,988,416	.2584
70-74	0	1,735,447	.0000	0	1,615,254	.0000	0	3,350,701	.0000
75-79	0	117,280	.0000	0	23,239	.0000	0	140,519	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	4,262,576	636,151,991	.6701	4,692,092	865,408,439	.5422	8,954,668	1,501,560,430	.5964

TABLE B: Disability Benefits One Year Term Cost By Service Groups as a Percent of Earnings
Current Plan - All Participants - Actuarial Valuation Assumptions

Service Group	M A L E			F E M A L E			A L L		
	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage
0	197	57,882,263	.0003	0	86,422,209	.0000	197	144,304,472	.0001
1	2	29,994,808	.0000	0	36,946,310	.0000	2	66,941,118	.0000
2	2,388	45,010,150	.0053	511	71,193,645	.0007	2,899	116,203,795	.0025
3	346	42,870,818	.0008	416	65,366,086	.0006	762	108,236,904	.0007
4	2,512	29,271,205	.0086	13	34,285,631	.0000	2,525	63,556,836	.0040
00-04	5,445	205,029,244	.0027	940	294,213,881	.0003	6,385	499,243,125	.0013
05-09	57,734	95,246,781	.0606	68,782	128,615,438	.0535	126,516	223,862,219	.0565
10-14	919,895	137,959,602	.6668	1,205,300	200,937,197	.5998	2,125,195	338,896,799	.6271
15-19	945,560	93,834,867	1.0077	1,301,400	132,758,601	.9803	2,246,940	226,593,468	.9916
20-24	904,898	54,950,141	1.6468	1,105,097	69,972,727	1.5793	2,009,995	124,922,868	1.6090
25-29	1,040,149	37,351,046	2.7848	834,267	33,654,921	2.4789	1,874,416	71,005,967	2.6398
30-34	340,078	9,993,148	3.4031	156,813	4,561,101	3.4381	496,891	14,554,249	3.4141
35-39	48,467	1,764,222	2.7472	17,469	555,847	3.1428	65,936	2,320,049	2.8420
40+	350	22,940	1.5257	2,024	138,726	1.4590	2,374	161,666	1.4685
TOTAL	4,262,576	636,151,991	.6701	4,692,092	865,408,439	.5422	8,954,668	1,501,560,430	.5964

DISTRIBUTION G7

Louisiana State Employees' Retirement System
Distributions as of 07-01-1993

TABLE A: Disability Benefits One Year Term Cost By Age Groups as a Percent of Earnings
Current Plan - All Participants - Alternative Actuarial Assumptions

Age Group	M	A	L	E	F	E	M	A	L	E	A	L	L
	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage	
00-19	0	393,286	.0000	0	217,618	.0000	0	610,904	.0000	0	610,904	.0000	
20-24	0	18,126,882	.0000	0	16,723,000	.0000	0	34,849,882	.0000	0	34,849,882	.0000	
25-29	1,208	46,983,508	.0026	2,706	68,225,085	.0040	3,914	115,208,593	.0034	3,914	115,208,593	.0034	
30-34	39,421	71,504,597	.0551	113,750	117,740,609	.0966	153,171	189,245,206	.0809	153,171	189,245,206	.0809	
35-39	140,910	94,618,566	.1489	493,864	165,980,353	.2975	634,774	260,598,919	.2436	634,774	260,598,919	.2436	
40-44	383,640	113,710,964	.3374	1,006,481	173,338,977	.5806	1,390,121	287,049,941	.4843	1,390,121	287,049,941	.4843	
45-49	822,895	111,428,858	.7385	1,437,638	136,383,230	1.0541	2,260,533	247,812,088	.9122	2,260,533	247,812,088	.9122	
50-54	1,323,929	79,526,827	1.6648	1,729,070	92,041,542	1.8786	3,052,999	171,568,369	1.7795	3,052,999	171,568,369	1.7795	
55-59	1,594,353	56,553,172	2.8192	1,653,496	58,489,662	2.8270	3,247,849	115,042,834	2.8232	3,247,849	115,042,834	2.8232	
60-64	1,225,552	31,120,502	3.9381	980,051	26,973,556	3.6334	2,205,603	58,094,058	3.7966	2,205,603	58,094,058	3.7966	
65-69	450,479	10,332,102	4.3600	292,048	7,656,314	3.8145	742,527	17,988,416	4.1278	742,527	17,988,416	4.1278	
70-74	10,239	1,735,447	.5900	0	1,615,254	.0000	10,239	3,350,701	.3056	10,239	3,350,701	.3056	
75-79	0	117,280	.0000	0	23,259	.0000	0	140,519	.0000	0	140,519	.0000	
80-84	0	0	.0000	0	0	.0000	0	0	.0000	0	0	.0000	
85+	0	0	.0000	0	0	.0000	0	0	.0000	0	0	.0000	
TOTAL	5,992,626	636,151,991	.9420	7,709,104	865,408,439	.8908	13,701,730	1,501,560,430	.9125	13,701,730	1,501,560,430	.9125	

TABLE B: Disability Benefits One Year Term Cost By Service Groups as a Percent of Earnings
Current Plan - All Participants - Alternative Actuarial Assumptions

Service Group	M	A	L	E	F	E	M	A	L	E	A	L	L
	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage	
0	820	57,882,263	.0014	0	86,422,209	.0000	820	144,304,472	.0006	820	144,304,472	.0006	
1	5	29,994,808	.0000	0	36,946,310	.0000	5	66,941,118	.0000	5	66,941,118	.0000	
2	2,400	45,010,150	.0053	737	71,193,645	.0010	3,137	116,203,795	.0027	3,137	116,203,795	.0027	
3	375	42,870,818	.0009	764	65,366,086	.0012	1,139	108,236,904	.0011	1,139	108,236,904	.0011	
4	2,932	29,271,205	.0100	44	34,285,631	.0001	2,976	63,556,836	.0047	2,976	63,556,836	.0047	
00-04	6,532	205,029,244	.0032	1,545	294,213,881	.0005	8,077	499,243,125	.0016	8,077	499,243,125	.0016	
05-09	98,056	95,246,781	.1029	127,367	128,615,438	.0990	225,423	223,862,219	.1007	225,423	223,862,219	.1007	
10-14	1,356,569	137,959,602	.9833	2,092,253	200,937,197	1.0412	3,448,822	338,896,799	1.0177	3,448,822	338,896,799	1.0177	
15-19	1,288,575	93,634,867	1.3732	2,188,927	132,758,601	1.6488	3,477,502	226,593,468	1.5347	3,477,502	226,593,468	1.5347	
20-24	1,223,743	54,950,141	2.2270	1,771,285	69,972,727	2.5314	2,995,028	124,922,868	2.3975	2,995,028	124,922,868	2.3975	
25-29	1,296,922	37,351,046	3.4723	1,233,180	33,654,921	3.6642	2,530,102	71,005,967	3.5632	2,530,102	71,005,967	3.5632	
30-34	564,036	9,993,148	5.6442	238,386	4,561,101	5.2265	802,422	14,554,249	5.5133	802,422	14,554,249	5.5133	
35-39	155,641	1,764,222	8.8221	43,146	555,847	7.7622	198,787	2,320,069	8.5682	198,787	2,320,069	8.5682	
40+	2,552	22,940	11.1247	13,015	138,726	9.3818	15,567	161,666	9.6291	15,567	161,666	9.6291	
TOTAL	5,992,626	636,151,991	.9420	7,709,104	865,408,439	.8908	13,701,730	1,501,560,430	.9125	13,701,730	1,501,560,430	.9125	

DISTRIBUTION G8

Teachers Retirement System of Louisiana
Distributions as of 07-01-1993

TABLE A: Disability Benefits One Year Term Cost By Age Groups as a Percent of Earnings
Current Plan - All Participants - Actuarial Valuation Assumptions

Age Group	M	A	L	E	F	E	M	A	L	E	1YT Cost	Earnings	Percentage	A	L	L	1YT Cost	Earnings	Percentage
00-19	0	0	0	0	0	0	0	0	0	0	0	33,673	.0000	0	33,673	0	33,673	.0000	
20-24	0	3,390,232	0	0	0	0	23,513,520	0	0	0	0	26,903,752	.0000	0	26,903,752	0	26,903,752	.0000	
25-29	100	23,133,525	0	0	683	103,555,856	0	0	0	0	783	126,689,381	.0006	0	126,689,381	0	126,689,381	.0006	
30-34	71,301	31,106,426	0	0	364,049	137,938,627	0	0	0	0	435,350	169,045,053	.2575	0	169,045,053	0	169,045,053	.2575	
35-39	241,249	54,698,123	0	0	1,003,688	226,447,056	0	0	0	0	1,244,937	281,145,179	.4428	0	281,145,179	0	281,145,179	.4428	
40-44	788,921	92,792,867	0	0	2,817,500	333,262,030	0	0	0	0	3,606,421	426,054,897	.8465	0	426,054,897	0	426,054,897	.8465	
45-49	1,645,477	121,448,214	1,3549	1,3549	3,969,800	299,911,317	1,3237	1,3237	1,3237	1,3237	5,615,277	421,359,531	1.3327	1,3237	421,359,531	1,3237	421,359,531	1.3327	
50-54	2,131,277	115,667,187	1,8426	1,8426	4,369,946	220,657,536	1,9804	1,9804	1,9804	1,9804	6,501,223	336,324,723	1.9330	1,9804	336,324,723	1,9804	336,324,723	1.9330	
55-59	1,431,634	70,474,184	2,0314	2,0314	2,917,406	121,384,446	2,4034	2,4034	2,4034	2,4034	4,349,040	191,858,630	2.2668	2,4034	191,858,630	2,4034	191,858,630	2.2668	
60-64	1,125,333	37,332,960	3,0143	3,0143	1,733,028	55,161,448	3,1417	3,1417	3,1417	3,1417	2,858,361	92,494,408	3.0903	3,1417	92,494,408	3,1417	92,494,408	3.0903	
65-69	348,958	11,671,142	2,9899	2,9899	497,409	14,743,309	3,3738	3,3738	3,3738	3,3738	846,367	26,414,451	3.2042	3,3738	26,414,451	3,3738	26,414,451	3.2042	
70-74	0	2,762,921	.0000	.0000	0	2,376,963	.0000	.0000	.0000	.0000	0	5,139,884	.0000	.0000	5,139,884	.0000	5,139,884	.0000	
75-79	0	108,174	.0000	.0000	0	113,744	.0000	.0000	.0000	.0000	0	221,918	.0000	.0000	221,918	.0000	221,918	.0000	
80-84	0	0	.0000	.0000	0	0	.0000	.0000	.0000	.0000	0	0	.0000	.0000	0	.0000	0	.0000	
85+	0	0	.0000	.0000	0	0	.0000	.0000	.0000	.0000	0	0	.0000	.0000	0	.0000	0	.0000	
TOTAL	7,784,250	564,585,955	1.3788	1.3788	17,673,509	1,539,099,525	1.1483	1.1483	1.1483	1.1483	25,457,759	2,103,685,480	1.2102	1.2102	2,103,685,480	1.2102	2,103,685,480	1.2102	

TABLE B: Disability Benefits One Year Term Cost By Service Groups as a Percent of Earnings Disability Benefits
Current Plan - All Participants - Actuarial Valuation Assumptions

Service Group	M	A	L	E	F	E	M	A	L	E	1YT Cost	Earnings	Percentage	A	L	L	1YT Cost	Earnings	Percentage
0	0	7,112,956	.0000	.0000	0	26,931,243	.0000	.0000	.0000	.0000	0	34,044,199	.0000	0	34,044,199	0	34,044,199	.0000	
1	0	21,267,794	.0000	.0000	0	77,773,514	.0000	.0000	.0000	.0000	0	99,041,308	.0000	0	99,041,308	0	99,041,308	.0000	
2	0	22,685,514	.0000	.0000	0	90,626,509	.0000	.0000	.0000	.0000	0	113,312,023	.0000	0	113,312,023	0	113,312,023	.0000	
3	172	23,323,593	.0007	.0007	240	66,054,043	.0004	.0004	.0004	.0004	412	89,377,636	.0005	412	89,377,636	.0005	89,377,636	.0005	
4	42,865	18,576,304	.2308	.2308	152,900	77,810,430	.1965	.1965	.1965	.1965	195,765	96,386,734	.2031	195,765	96,386,734	.2031	96,386,734	.2031	
00-04	43,037	92,966,161	.0463	.0463	153,140	339,195,739	.0451	.0451	.0451	.0451	196,177	432,161,900	.0454	196,177	432,161,900	.0454	432,161,900	.0454	
05-09	652,625	79,110,321	.8250	.8250	2,045,633	271,929,964	.7523	.7523	.7523	.7523	2,698,258	351,040,285	.7686	2,698,258	351,040,285	.7686	351,040,285	.7686	
10-14	994,289	88,646,058	1.1216	1.1216	3,251,484	270,948,083	1.2000	1.2000	1.2000	1.2000	4,245,773	359,594,141	1.1807	4,245,773	359,594,141	1.1807	359,594,141	1.1807	
15-19	1,351,523	98,221,675	1.3760	1.3760	3,251,484	270,948,083	1.2000	1.2000	1.2000	1.2000	2,698,258	351,040,285	.7686	2,698,258	351,040,285	.7686	351,040,285	.7686	
20-24	1,651,914	94,415,268	1.7496	1.7496	3,898,933	282,289,744	1.3812	1.3812	1.3812	1.3812	5,250,456	380,511,219	1.3798	5,250,456	380,511,219	1.3798	380,511,219	1.3798	
25-29	2,013,122	80,490,023	2.5011	2.5011	3,766,044	212,102,799	1.7756	1.7756	1.7756	1.7756	5,417,958	306,518,067	1.7676	5,417,958	306,518,067	1.7676	306,518,067	1.7676	
30-34	819,095	24,982,782	3.2786	3.2786	3,120,255	121,726,924	2.5633	2.5633	2.5633	2.5633	5,133,377	202,216,947	2.5385	5,133,377	202,216,947	2.5385	202,216,947	2.5385	
35-39	235,374	4,911,269	4.7925	4.7925	1,023,720	31,795,394	3.2197	3.2197	3.2197	3.2197	1,842,815	56,778,176	3.2456	1,842,815	56,778,176	3.2456	56,778,176	3.2456	
40+	23,271	842,598	2.7618	2.7618	360,238	7,679,061	4.6912	4.6912	4.6912	4.6912	595,612	12,590,330	4.7507	595,612	12,590,330	4.7507	12,590,330	4.7507	
TOTAL	7,784,250	564,585,955	1.3788	1.3788	17,673,509	1,539,099,525	1.1483	1.1483	1.1483	1.1483	25,457,759	2,103,685,480	1.2102	25,457,759	2,103,685,480	1.2102	2,103,685,480	1.2102	

DISTRIBUTION G9

Teachers Retirement System of Louisiana
Distributions as of 07-01-1993

TABLE A: Disability Benefits One Year Term Cost By Age Groups as a Percent of Earnings
Current Plan - All Participants - Alternative Actuarial Assumptions

Age Group	M A L E		F E M A L E		A L L	
	1YT Cost	Earnings	1YT Cost	Earnings	1YT Cost	Earnings
00-19	0	0	0	33,673	0	33,673
20-24	0	3,390,232	285	23,513,520	285	26,903,752
25-29	10,163	23,133,525	117,125	103,555,856	127,288	126,689,381
30-34	54,934	31,106,426	496,484	137,938,627	551,418	169,045,053
35-39	196,049	54,698,123	1,525,831	226,447,056	1,721,880	281,145,179
40-44	560,714	92,792,867	3,373,479	333,262,030	3,934,193	426,054,897
45-49	1,331,473	121,448,214	4,677,542	299,911,317	6,009,015	421,359,531
50-54	2,447,692	115,667,187	5,789,550	220,657,536	8,237,242	336,324,723
55-59	2,744,748	70,474,184	4,824,125	121,384,446	7,568,873	191,858,630
60-64	2,041,516	37,332,960	2,639,262	55,161,448	4,680,778	92,494,408
65-69	697,233	11,671,142	814,643	14,743,309	1,511,876	26,414,451
70-74	0	2,762,921	0	2,376,963	0	5,139,884
75-79	0	108,174	0	113,744	0	221,918
80-84	0	0	0	0	0	0
85+	0	0	0	0	0	0
TOTAL	10,084,522	564,585,955	24,258,326	1,539,099,525	34,342,848	2,103,685,480

Age Group	M A L E		F E M A L E		A L L	
	1YT Cost	Earnings	1YT Cost	Earnings	1YT Cost	Earnings
00-19	0	0	0	33,673	0	33,673
20-24	0	3,390,232	285	23,513,520	285	26,903,752
25-29	10,163	23,133,525	117,125	103,555,856	127,288	126,689,381
30-34	54,934	31,106,426	496,484	137,938,627	551,418	169,045,053
35-39	196,049	54,698,123	1,525,831	226,447,056	1,721,880	281,145,179
40-44	560,714	92,792,867	3,373,479	333,262,030	3,934,193	426,054,897
45-49	1,331,473	121,448,214	4,677,542	299,911,317	6,009,015	421,359,531
50-54	2,447,692	115,667,187	5,789,550	220,657,536	8,237,242	336,324,723
55-59	2,744,748	70,474,184	4,824,125	121,384,446	7,568,873	191,858,630
60-64	2,041,516	37,332,960	2,639,262	55,161,448	4,680,778	92,494,408
65-69	697,233	11,671,142	814,643	14,743,309	1,511,876	26,414,451
70-74	0	2,762,921	0	2,376,963	0	5,139,884
75-79	0	108,174	0	113,744	0	221,918
80-84	0	0	0	0	0	0
85+	0	0	0	0	0	0
TOTAL	10,084,522	564,585,955	24,258,326	1,539,099,525	34,342,848	2,103,685,480

TABLE B: Disability Benefits One Year Term Cost By Service Groups as a Percent of Earnings Disability Benefits
Current Plan - All Participants - Alternative Actuarial Assumptions

Service Group	M A L E		F E M A L E		A L L	
	1YT Cost	Earnings	1YT Cost	Earnings	1YT Cost	Earnings
0	0	7,112,956	0	26,931,243	0	34,044,199
1	0	21,267,794	0	77,773,514	0	99,041,308
2	0	22,685,514	0	90,626,509	0	113,312,023
3	119	23,323,593	340	66,054,043	459	89,377,636
4	42,634	18,576,304	227,617	77,810,430	269,911	96,386,734
00-04	42,753	92,966,161	227,617	339,195,739	487,574	432,161,900
05-09	662,318	79,110,321	2,825,256	271,929,964	3,487,574	351,040,285
10-14	1,017,493	88,646,058	3,912,425	270,948,083	4,929,918	359,594,141
15-19	1,451,324	98,221,475	4,952,818	282,289,744	6,404,142	380,511,219
20-24	2,002,048	94,415,268	5,029,794	212,102,799	7,031,842	306,518,067
25-29	2,942,033	80,690,023	4,709,893	121,726,924	7,651,926	202,216,947
30-34	1,478,608	24,982,782	1,857,614	31,795,394	3,336,222	56,778,176
35-39	441,586	4,911,269	641,199	7,679,061	1,082,785	12,590,330
40+	46,359	842,598	101,710	1,431,817	148,069	2,274,415
TOTAL	10,084,522	564,585,955	24,258,326	1,539,099,525	34,342,848	2,103,685,480

DISTRIBUTION G10

Louisiana State Employees' Retirement System
Distributions as of 07-01-1993

Table A: Present Value Of Future Disability Benefits by Age Groups as a Percent of Earnings
Current Plan - All Participants - Actuarial Valuation Assumptions

Age Group	M A L E			F E M A L E			A L L		
	PVFB	Earnings	Percentage	PVFB	Earnings	Percentage	PVFB	Earnings	Percentage
00-19	6,478	393,286	1.6471	3,556	217,618	1.6341	10,034	610,904	1.6425
20-24	565,908	18,126,882	3.1219	553,178	16,723,000	3.3079	1,119,086	34,849,882	3.2112
25-29	2,391,902	46,983,508	5.0909	3,932,201	68,225,085	5.7636	6,324,103	115,208,593	5.4893
30-34	5,460,377	71,504,597	7.6364	10,287,519	117,740,609	8.7374	15,747,896	189,245,206	8.3214
35-39	10,180,139	94,618,566	10.7591	19,923,964	165,980,353	12.0038	30,104,103	260,598,919	11.3519
40-44	15,185,959	113,710,964	13.3549	24,567,224	173,338,977	14.1729	39,753,183	287,049,941	13.8489
45-49	15,984,046	111,428,858	14.3446	20,329,856	136,383,230	14.9064	36,313,902	247,812,088	14.6538
50-54	9,633,959	79,526,827	12.1141	11,696,579	92,041,542	12.7079	21,330,518	171,568,369	12.4327
55-59	4,163,997	56,553,172	7.3630	4,814,487	58,489,662	8.2313	8,978,484	115,042,834	7.8045
60-64	554,259	31,120,502	1.7810	471,128	26,973,556	1.7466	1,025,387	58,094,058	1.7650
65-69	27,544	10,332,102	.2666	18,902	7,656,314	.2469	46,446	17,988,416	.2582
70-74	0	1,735,447	-.0001	0	1,615,254	.0000	0	3,350,701	.0000
75-79	0	117,280	.0000	0	23,259	.0000	0	140,519	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	64,154,547	636,151,991	10.0848	96,598,594	865,408,439	11.1622	160,753,141	1,501,560,430	10.7057

TABLE B: Present Value of Future Disability Benefits by Service Groups as a Percent of Earnings
Current Plan - All Participants - Actuarial Valuation Assumptions

Service Group	M A L E			F E M A L E			A L L		
	PVFB	Earnings	Percentage	PVFB	Earnings	Percentage	PVFB	Earnings	Percentage
0	1,374,477	57,882,263	2.3746	2,381,966	86,422,209	2.7562	3,756,443	144,304,472	2.6031
1	1,060,236	29,994,808	3.5347	1,452,061	36,946,310	3.9302	2,512,297	66,941,118	3.7530
2	2,188,339	45,010,150	4.8619	4,047,847	71,193,645	5.6857	6,236,186	116,203,795	5.3466
3	2,583,930	42,870,818	6.0272	4,485,233	65,366,086	6.8617	7,069,163	108,236,904	6.5312
4	1,985,259	29,271,205	6.7823	2,719,679	34,285,631	7.9324	4,704,938	63,556,836	7.4027
00-04	9,192,241	205,029,244	4.4834	15,086,786	294,213,881	5.1278	24,279,027	499,243,125	4.8632
05-09	9,215,536	95,246,781	9.6734	14,891,475	128,615,438	11.5783	24,107,011	223,862,219	10.7687
10-14	18,489,649	137,959,602	13.4022	30,320,709	200,937,197	15.0896	48,810,358	338,896,799	14.4027
15-19	13,652,492	93,834,867	14.5495	21,113,987	132,758,601	15.9040	34,766,479	226,593,468	15.3431
20-24	8,205,618	54,950,141	14.9328	10,715,440	69,972,727	15.3137	18,921,058	124,922,868	15.1462
25-29	4,483,970	37,351,046	12.0049	4,048,599	33,654,921	12.0297	8,532,569	71,005,967	12.0167
30-34	818,326	9,993,148	8.1889	376,370	4,561,101	8.2517	1,194,696	14,554,249	8.2086
35-39	96,048	1,764,222	5.4442	40,054	555,847	7.2059	136,102	2,320,069	5.8663
40+	667	22,940	2.9076	5,174	138,726	3.7297	5,841	161,666	3.6130
TOTAL	64,154,547	636,151,991	10.0848	96,598,594	865,408,439	11.1622	160,753,141	1,501,560,430	10.7057

DISTRIBUTION G11

Louisiana State Employees' Retirement System
Distributions as of 07-01-1993

Table A: Present Value Of Future Disability Benefits by Age Groups as a Percent of Earnings
Current Plan - All Participants - Alternative Actuarial Assumptions

Age Group	M A L E		F E M A L E		A L L	
	PVFB	Earnings Percentage	PVFB	Earnings Percentage	PVFB	Earnings Percentage
00-19	6,692	393,286 1.7016	5,966	217,618 2.7415	12,658	610,904 2.0720
20-24	562,081	18,126,882 3.1008	811,459	16,723,000 4.8524	1,373,540	34,849,882 3.9413
25-29	2,442,001	46,983,508 5.1976	5,605,541	68,225,085 8.2162	8,047,542	115,208,593 6.9852
30-34	5,675,573	71,504,597 7.9374	14,748,537	117,740,609 12.5263	20,424,110	189,245,206 10.7924
35-39	11,001,654	94,618,566 11.6274	28,163,518	165,980,353 16.9800	39,185,172	260,598,919 15.0366
40-44	17,149,669	113,710,964 15.0818	34,523,608	173,338,977 19.9168	51,673,277	287,049,941 18.0015
45-49	19,488,239	111,428,858 17.4894	29,307,274	136,383,230 21.4889	48,795,513	247,812,088 19.6905
50-54	16,458,741	79,526,827 18.1810	19,231,703	92,041,542 20.8946	33,690,444	171,568,369 19.6367
55-59	9,454,210	56,553,172 16.7174	10,512,874	58,489,662 17.9739	19,967,084	115,042,834 17.3562
60-64	4,304,635	31,120,502 13.8322	3,293,613	26,973,556 12.2105	7,598,248	58,094,058 13.0792
65-69	972,681	10,332,102 9.4142	609,055	7,656,314 7.9549	1,581,736	17,988,416 8.7951
70-74	17,531	1,735,447 1.0102	0	1,615,254 .0000	17,531	3,350,701 .5232
75-79	0	117,280 .0000	0	23,239 .0000	0	140,519 .0000
80-84	0	0 .0000	0	0 .0000	0	0 .0000
85+	0	0 .0000	0	0 .0000	0	0 .0000
TOTAL	85,533,707	636,151,991 13.4455	146,833,148	865,408,439 16.9669	232,366,855	1,501,560,430 15.4750

TABLE B: Present Value of Future Disability Benefits by Service Groups as a Percent of Earnings
Current Plan - All Participants - Alternative Actuarial Assumptions

Service Group	M A L E		F E M A L E		A L L	
	PVFB	Earnings Percentage	PVFB	Earnings Percentage	PVFB	Earnings Percentage
0	1,865,962	57,882,263 3.2337	3,718,628	86,422,209 4.3029	5,584,590	144,304,472 3.8700
1	1,463,579	29,994,808 4.8794	2,283,587	36,946,310 6.1808	3,747,166	66,941,118 5.5977
2	2,996,423	45,010,150 6.6372	6,270,485	71,193,645 8.8076	9,266,908	116,203,795 7.9747
3	3,498,442	42,870,818 8.1604	6,873,941	65,366,086 10.5161	10,372,383	108,236,904 9.5830
4	2,748,435	29,271,205 9.3896	4,203,629	34,285,631 12.2606	6,952,064	63,556,836 10.9383
00-04	12,572,841	205,029,244 6.1322	23,350,270	294,213,881 7.9365	35,923,111	499,243,125 7.1955
05-09	12,849,799	95,246,781 13.4911	22,988,403	128,615,438 17.8738	35,838,202	223,862,219 16.0090
10-14	24,544,022	137,959,602 17.7907	46,199,863	200,937,197 22.9922	70,743,885	338,896,799 20.8748
15-19	17,099,631	93,834,867 18.2331	31,659,505	132,758,601 23.8474	48,759,136	226,593,468 21.5183
20-24	10,362,699	54,950,141 18.8584	15,838,714	69,972,727 22.6356	26,201,413	124,922,868 20.9741
25-29	6,027,201	37,351,046 16.1366	5,969,458	33,654,921 17.7373	11,996,659	71,005,967 16.8953
30-34	1,655,256	9,993,148 16.5639	674,022	4,561,101 14.7776	2,329,278	14,554,249 16.0041
35-39	416,214	1,764,222 23.9919	115,598	555,847 20.7967	531,812	2,320,069 22.9222
40+	6,044	22,940 26.3470	37,315	138,726 26.8983	43,359	161,666 26.8201
TOTAL	85,533,707	636,151,991 13.4455	146,833,148	865,408,439 16.9669	232,366,855	1,501,560,430 15.4750

DISTRIBUTION G12

Teachers Retirement System of Louisiana
Distributions as of 07-01-1993

Table A: Present Value Of Future Preretirement Death Benefits by Age Groups as a Percent of Earnings
Current Plan - All Participants - Actuarial Valuation Assumptions

Age Group	M A L E		F E M A L E		A L L				
	PVFB	Earnings Percentage	PVFB	Earnings Percentage	PVFB	Earnings Percentage			
00-19	0	.0000	1,400	33,673	4.1576	1,400	33,673	4.1576	
20-24	327,679	3,390,232	9.6654	1,159,020	23,513,520	4.9292	1,486,699	26,905,752	5.5260
25-29	2,853,585	23,133,525	12.3344	6,679,012	103,555,856	6.4497	9,532,397	126,689,381	7.5242
30-34	4,544,868	31,106,426	14.6107	10,399,725	137,938,627	7.5394	14,944,593	169,045,053	8.8406
35-39	9,170,897	54,698,123	16.7664	18,347,313	226,447,056	8.1023	27,518,210	281,145,179	9.7879
40-44	16,452,575	92,792,867	17.7304	27,333,431	333,262,030	8.2018	43,786,006	426,054,897	10.2771
45-49	20,189,293	121,448,214	16.6238	22,380,232	299,911,317	7.4623	42,569,525	421,359,531	10.1029
50-54	14,130,950	115,667,187	12.2169	12,267,585	220,657,536	5.5596	26,398,535	336,324,723	7.8491
55-59	6,518,139	70,474,184	9.2490	5,345,348	121,384,446	4.4037	11,863,487	191,858,630	6.1835
60-64	3,155,346	37,332,960	6.4519	2,163,393	55,161,448	3.9219	5,318,739	92,494,408	5.7503
65-69	831,910	11,671,142	7.1279	499,593	14,743,309	3.3886	1,331,503	26,414,451	5.0408
70-74	0	2,762,921	.0000	0	2,376,943	.0000	0	5,139,884	.0000
75-79	0	108,174	.0000	0	113,744	.0000	0	221,918	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	78,175,042	564,585,955	13.8464	106,576,052	1,539,099,525	6.9246	184,751,094	2,103,685,480	8.7823

TABLE B: Present Value Of Future Preretirement Death Benefits by Service Groups as a Percent of Earnings
Current Plan - All Participants - Actuarial Valuation Assumptions

Service Group	M A L E		F E M A L E		A L L				
	PVFB	Earnings Percentage	PVFB	Earnings Percentage	PVFB	Earnings Percentage			
0	514,522	7,112,956	7.2336	985,348	26,931,243	3.6588	1,499,870	34,044,199	4.4057
1	1,615,653	21,267,794	7.5967	3,191,044	77,773,514	4.1030	4,806,697	99,041,308	4.8532
2	2,018,523	22,685,514	8.8978	4,272,382	90,626,509	4.7143	6,290,905	113,312,023	5.5518
3	2,496,550	23,323,593	10.7040	3,536,560	66,054,043	5.3540	6,033,110	89,377,636	6.7501
4	2,062,634	18,576,304	11.1036	4,530,946	77,810,430	5.8488	6,613,580	96,386,734	6.8615
00-04	8,707,882	92,966,161	9.3667	16,536,280	339,195,739	4.8751	25,244,162	432,161,900	5.8414
05-09	10,668,378	79,110,321	13.4854	19,242,998	271,929,964	7.0765	29,911,376	351,040,285	8.5208
10-14	14,127,897	88,646,058	15.9374	21,587,832	270,948,083	7.9675	35,715,729	359,594,141	9.9322
15-19	15,937,518	98,221,475	16.2261	22,793,886	282,289,744	8.0746	38,731,404	380,511,219	10.1788
20-24	14,577,113	94,415,268	15.4394	16,219,408	212,102,799	7.6611	30,826,521	306,518,067	10.0570
25-29	10,634,448	80,490,023	13.2121	7,904,890	121,726,924	6.6940	18,339,338	202,216,947	9.1680
30-34	2,897,204	24,982,782	11.5948	1,768,994	31,795,394	5.5637	4,666,198	56,778,176	8.2183
35-39	573,019	4,911,269	11.6674	435,890	7,679,061	5.6763	1,008,909	12,590,330	8.0134
40+	51,583	842,598	6.1219	55,874	1,431,817	3.9023	107,457	2,274,415	4.7246
TOTAL	78,175,042	564,585,955	13.8464	106,576,052	1,539,099,525	6.9246	184,751,094	2,103,685,480	8.7823

DISTRIBUTION G13

Teachers Retirement System of Louisiana
Distributions as of 07-01-1993

Table A: Present Value Of Future Disability Benefits by Age Groups as a Percent of Earnings
Current Plan - All Participants - Alternative Actuarial Assumptions

Age Group	M A L E		F E M A L E		A L L	
	PVFB	Earnings Percentage	PVFB	Earnings Percentage	PVFB	Earnings Percentage
00-19	0	0	3,900	33,673	3,900	33,673
20-24	352,139	3,390,232	3,395,704	23,513,520	3,747,843	26,903,752
25-29	3,210,805	23,133,525	20,297,780	137,555,856	23,508,585	126,689,381
30-34	5,430,362	31,106,426	33,255,732	103,938,627	38,686,094	169,045,053
35-39	11,597,897	54,698,123	61,879,133	226,447,056	73,477,030	281,145,179
40-44	22,162,512	92,792,867	97,434,761	333,262,030	119,597,273	426,054,897
45-49	31,328,055	121,448,216	90,064,848	299,911,317	121,392,903	421,359,531
50-54	29,946,137	115,667,187	62,214,481	220,657,536	92,160,618	336,324,723
55-59	18,873,511	70,474,184	31,250,304	121,384,446	50,123,815	191,858,630
60-64	9,254,376	37,332,960	10,658,861	55,161,448	18,913,237	92,494,408
65-69	1,629,015	11,671,142	1,935,463	14,743,309	3,564,478	26,414,451
70-74	0	2,762,921	0	2,376,963	0	5,139,884
75-79	0	108,174	0	113,744	0	221,918
80-84	0	0	0	0	0	0
85+	0	0	0	0	0	0
TOTAL	132,784,809	564,585,955	412,390,967	1,539,099,525	545,175,776	2,103,685,480

TABLE B: Present Value of Future Disability Benefits by Service Groups as a Percent of Earnings
Current Plan - All Participants - Alternative Actuarial Assumptions

Service Group	M A L E		F E M A L E		A L L	
	PVFB	Earnings Percentage	PVFB	Earnings Percentage	PVFB	Earnings Percentage
0	830,017	7,112,956	3,938,702	26,931,243	4,768,719	34,044,199
1	2,632,684	21,267,794	12,244,113	77,773,514	14,876,797	99,041,308
2	3,303,661	22,685,514	17,218,351	90,626,509	20,522,012	113,312,023
3	3,946,227	23,323,593	14,290,831	66,054,043	18,239,058	89,377,636
4	3,547,700	18,576,304	18,691,920	77,810,430	22,239,620	96,386,734
00-04	14,262,289	92,966,161	66,303,917	339,199,739	80,646,206	432,161,900
05-09	17,596,176	79,110,321	75,127,778	271,929,964	92,723,954	351,040,285
10-14	21,126,016	88,646,058	78,720,193	270,948,083	99,846,209	359,594,141
15-19	23,101,626	98,221,475	79,634,186	282,289,744	102,735,812	380,511,219
20-24	23,740,014	94,415,268	61,534,488	212,102,799	85,274,502	306,518,067
25-29	23,112,711	80,490,023	37,733,598	121,726,924	60,846,309	202,216,947
30-34	8,136,060	24,982,782	10,513,512	31,795,394	18,649,572	56,778,176
35-39	1,587,495	4,911,269	2,466,161	7,679,061	4,053,656	12,590,330
40+	122,422	842,598	277,134	1,431,817	399,556	2,274,415
TOTAL	132,784,809	564,585,955	412,390,967	1,539,099,525	545,175,776	2,103,685,480

Section H - Comparison of PreRetirement Disability Benefits

Compare the costs to the state and benefits to the employee of the existing disability retirement benefits with the disability benefits of the hypothetical "standard" plan. Present options and make recommendations.

Sections

Cost Comparison of In-Service Death Benefit Provisions

Benefit Comparison of In-Service Death Benefit Provisions

Cost Comparison of In-Service Disability Benefit Provisions

We compared the cost of the in-service preretirement disability benefit plan described in Section F with the costs of the current plan in Section G. Please refer to the Introduction for the actuarial methodology and definitions and Appendix 1 for the actuarial assumptions. The cost comparisons are shown in Table H1. It is inconclusive as to which plan is more expensive in total.

Comparing the "pension funding" in the cost of the current plan ranges from 1.08% of payroll to 1.54% of payroll, while the cost of the ".65% of pay" plan ranges from 1.16% of payroll to 1.49% of payroll - the costs of the plan being even. Comparing the "1 year term cost", the cost of the current plan ranges from 0.93% to 1.29% of payroll, while the cost of the "65% of pay" plan ranges from 1.03% of payroll to 1.34% of payroll - the latter plan being slightly higher. Comparing the "aggregate cost", the cost of the current plan ranges from 1.62% to 2.38% of payroll, while the cost of the "65% of pay" plan ranges from 1.40% of payroll to 1.34% of payroll - the former plan being slightly higher.

We compared the cost of the in-service preretirement disability benefit plan described in Section F with the costs of the current plan in section G with respect to the LASERS only. The cost comparisons are shown in Exhibit H2. The "65% of pay" plan is much more expensive.

Comparing the "pension funding" the cost of the current plan ranges from 0.75% of payroll to 1.08% of payroll, while the cost of the ".65% of pay" plan ranges from 1.16% of payroll to 1.46% of payroll. Comparing the "1 year term cost", the cost of the current plan ranges from 0.58% to 0.88% of payroll, while the cost of the "65% of pay" plan ranges from 0.97% of payroll to 1.27% of payroll. Comparing the "aggregate cost", the cost of the current plan ranges from 1.29% to 1.89% of payroll, while the cost of the "65% of pay" plan ranges from 1.44% of payroll to 1.46% of payroll.

We compared the cost of the in-service preretirement disability benefit plan described in Section F with the costs of the current plan in section G with respect to the Teachers' Retirement System only. The cost comparisons are shown in Exhibit H3. The "65% of pay" plan is somewhat less expensive.

Comparing the "pension funding" the cost of the current plan ranges from 1.32% of payroll to 1.87% of payroll, while the cost of the ".65% of pay" plan ranges from 1.15% of payroll to 1.51% of payroll. Comparing the "1 year term cost", the cost of the current plan ranges from 1.17% to 1.58% of payroll, while the cost of the "65% of pay" plan ranges from 1.07% of payroll to 1.38% of payroll. Comparing the "aggregate cost", the cost of the current plan ranges from 1.82% to 2.68% of payroll, while the cost of the "65% of pay" plan ranges from 1.38% of payroll to 1.84% of payroll.

We recommend that should the "65% of pay" plan be adopted that the retirement systems provide for a life annuity commencing at age 65 equal to their accrued benefit. The "1 year term cost" of this benefit is between 0.20% to 0.41% of payroll and the pension funding cost is 0.26% to 0.52%. A breakdown of the cost between the LASERS and the Teachers' Retirement System is shown in Exhibit H4.

Benefit Comparison of In-Service Disability Benefit Provisions

We compared the present value of future benefits of the in-service disability benefits described in Section F with the present value of future benefits of the current plan in Section G for different age/service groupings of the participants. We also compared the one year term cost of the in-service disability benefits described in Section F with the one year term cost of the current plan in section G for different age/service groupings of the participants. For purposes of these comparisons we added the value of the accrued benefit payable at age 65 to the "65% of pay" plan. The value of the accrued benefit payable at age 65 plus the "65% of pay" combination under the actuarial valuation assumptions is shown as a percent of pay is shown in Distribution 5 for the LASERS and Distribution 6 for the Teachers' Retirement System.

Distributions H7 - H9 compare the one year term costs. Distributions H10 - H13 compare the present value of future benefits.

Distribution H7 is an age/service distribution of the one year term cost of these benefits for the LASERS using the actuarial valuation assumptions. On the average the one year term cost of the "65% of pay" plan is 83 percent greater than that of the current plan. The ratio of the "65% of pay" plan to the current plan are decreasingly richer as the age of the participants gets older. For example the ratio is 6.37 in total for participants age 30-34 and 1.66 for participants age 50-54. The ratios of the "65% of pay" plan to the current plan are decreasingly richer as the service of the participants gets older. For example the ratio is 15.625 in total for participants with 0 - 4 years of service and 0.84 for participants with 30-34 years of service..

Distribution H8 is an age/service distribution of the one year term cost of these benefits for the Teachers' Retirement System using the current actuarial assumptions. On the average the one year term cost of the "65% of pay" plan is 16% greater than the current plan. The ratios of the "65% of pay" plan to the current are decreasingly richer as the age of the participants gets older. For example the ratio is 1.66 in total for participants age 30-34 and 1.12 for participants age 50-54. The ratios of the "65% of pay" plan to the current plan are decreasingly richer as the service of the participants gets older. For example the ratio is 14.9 in total for participants with 0 - 4 years of service and 0.92 for participants with 30-34 years of service.

Distribution H9 is an age/service distribution of the one year term cost of these benefits for the Teachers' Retirement System using the alternative assumptions. On the average the one year term cost of the "65% of pay" plan is 19% greater than the current plan. The ratios of the "65% of pay" plan to the current are decreasingly richer as the age of the participants gets older. For example the ratio is 4.16 in total for participants age 20-24 and 1.14 for participants age 50-54. The ratios of the "65% of pay" plan to the current plan are decreasingly richer as the service of the participants gets older. For example the ratio is 15.3894 in total for participants with 0 - 4 years of service and 0.92 for participants with 30-34 years of service.

Distribution H10 is an age/service distribution of the present value of these benefits for the LASERS using the current actuarial assumptions. On the average the present value of the "65% of pay" plan is 52% greater than the current plan. The ratios of the "65% of pay" plan to the current plan are increasingly richer as the age of the participants gets older. For example the ratio is 1.18 in total for participants age 20-24 and 1.71 for participants age 50-54. The benefits of the "65% of pay" plan are decreasingly richer as the service of the participants gets older. For example the ratio is 2.32 in total for participants with 0 - 4 years of service and 1.16 for participants with 30-34 years of service.

Distribution H11 is an age/service distribution of the present value of these benefits for the LASERS using the alternative actuarial assumptions. On the average the present value of the "65% of pay" plan is 47% greater than the current plan. The ratios of the "65% of pay" plan to the current plan are decreasingly richer as the age of the participants gets older. For example the ratio is 1.65 in total for participants age 20-24 and 1.54 for participants age 50-54. The benefits of the "65% of pay" plan are decreasingly richer as the service of the participants gets older. For example the ratio is 2.20 in total for participants with 0 - 4 years of service and 1.13 for participants with 30-34 years of service.

Distribution H12 is an age/service distribution of the present value of future benefits of these benefits for the Teachers' Retirement System using the current actuarial assumptions. On the average the present value of future benefits of the "65% of pay" plan is 6.5% greater than the current plan. The ratios of the "65% of pay" plan to the current plan are relatively constant as the age of the participants gets older. For example the ratio is 1.03 in total for participants age 20-24 and 1.05 for participants age 50-54. The ratios of the "65% of pay" plan to the current plan are decreasingly richer as the service of the participants gets older. For example the ratio is 1.31 in total for participants with 0 - 4 years of service and 0.92 for participants with 30-34 years of service.

Distribution H13 is an age/service distribution of the present value of future benefits of these benefits for the Teachers' Retirement System using the alternative assumptions. On the average the present value of future benefits of the "65% of pay" plan is 6.3% greater than the current plan. The ratio of the "65% of pay" plan to the current plan are decreasingly richer as the age of the participants gets older. For example the ratio is 1.10 in total for participants age 20-24 and 1.06 for participants age 50-54. The ratios of the "65% of pay" plan to the current plan are decreasingly richer as the service of the participants gets older. For example the ratio is 1.28 in total for participants with 0 - 4 years of service and 0.92 for participants with 30-34 years of service.

Exhibit H1

State of Louisiana Retirement Systems Comparison of Disability Benefit Provisions

	Current		Standard		Difference	
Number of Participants	151,555		151,555		151,555	
Compensation	3,718,574,237		3,718,574,237		3,718,574,237	
Alternative Cost Measures Current Assumptions						
Present Value of Future Benefits	536,778,537		465,374,428		71,404,109	
Present Value of Future Salary	33,135,847,886		33,135,847,886		33,135,847,886	
Accrued Liability	318,262,418		269,183,228		49,079,190	
1 Year Term Cost	34,411,350	0.93%	38,325,749	1.03%	-3,914,399	-0.11%
Aggregate Cost	60,238,411	1.62%	52,225,293	1.40%	8,013,119	0.22%
Unit Credit Normal Cost	24,799,063	0.67%	30,000,769	0.81%	-5,201,706	-0.14%
Amortization	15,335,197	0.41%	12,970,359	0.35%	2,364,838	0.06%
*Pension Funding	40,134,260	1.08%	42,971,128	1.16%	-2,836,868	-0.08%
Alternative Cost Measures Alternative Assumptions						
Present Value of Future Benefits	777,542,288		587,773,507		189,768,781	
Present Value of Future Salary	32,645,503,099		32,645,503,099		33,135,847,886	
Accrued Liability	458,227,139		339,681,602		118,545,537	
1 Year Term Cost	48,044,017	1.29%	49,688,796	1.34%	-1,644,779	-0.04%
PVFB/PVFS*comp	88,568,055	2.38%	66,951,929	1.80%	21,616,126	0.57%
Unit Credit Normal Cost	35,168,149	0.95%	38,942,254	1.05%	-3,774,105	-0.10%
Amortization	22,079,275	0.59%	16,367,262	0.44%	5,712,013	0.15%
*Pension Funding	57,247,424	1.54%	55,309,516	1.49%	1,937,908	0.05%

Exhibit H2

Louisiana State Employees ' Retirement System
Comparison of Disability Benefit Provisions

	Current		Standard		Difference	
Number of Participants	66,943		66,943		66,943	
Compensation	1,548,407,194		1,548,407,194		1,548,407,194	
Alternative Cost Measures						
Current Assumptions						
Present Value of Future Benefits	160,751,102		179,646,925		-18,895,823	
Present Value of Future Salary	12,467,371,446		12,467,371,446		33,135,847,886	
Accrued Liability	91,988,743		101,851,214		-9,862,471	
1 Year Term Cost	8,954,741	0.58%	15,015,670	0.97%	-6,060,929	-0.39%
Aggregate Cost	19,964,767	1.29%	22,311,567	1.44%	-2,346,800	-0.06%
Unit Credit Normal Cost	7,124,555	0.46%	13,034,772	0.84%	-5,910,217	-0.38%
Amortization	4,432,397	0.29%	4,907,612	0.32%	-475,215	-0.03%
"Pension Funding"	11,556,952	0.75%	17,942,384	1.16%	-6,385,432	-0.41%
Alternative Cost Measures						
Alternative Assumptions						
Present Value of Future Benefits	232,364,914		214,373,548		17,991,366	
Present Value of Future Salary	12,314,640,036		12,314,640,036		12,314,640,036	
Accrued Liability	132,730,152		121,813,708		10,916,444	
1 Year Term Cost	13,701,530	0.88%	19,637,279	1.27%	-5,935,749	-0.38%
PVFB/PVFS*comp	29,216,892	1.89%	26,954,709	1.74%	2,262,182	0.15%
Unit Credit Normal Cost	10,331,946	0.67%	16,753,085	1.08%	-6,421,139	-0.41%
Amortization	6,395,487	0.41%	5,869,487	0.38%	525,999	0.03%
"Pension Funding"	16,727,433	1.08%	22,622,572	1.46%	-5,895,140	-0.38%

Exhibit H3

Teachers' Retirement System of Louisiana Comparison of Disability Benefit Provisions

	Current		Standard		Difference	
Number of Participants	84,612		84,612		84,612	
Compensation	2,170,167,043		2,170,167,043		2,170,167,043	
Alternative Cost Measures Current Assumptions						
Present Value of Future Benefits	376,027,435		285,727,503		90,299,932	
Present Value of Future Salary	20,668,476,440		20,668,476,440		20,668,476,440	
Accrued Liability	226,273,675		167,332,014		58,941,661	
1 Year Term Cost	25,456,609	1.17%	23,310,079	1.07%	2,146,530	0.10%
Aggregate Cost	39,482,463	1.82%	30,001,070	1.38%	9,481,392	0.44%
Unit Credit Normal Cost Amortization	17,674,508	0.81%	16,965,997	0.78%	708,511	0.03%
"Pension Funding"	10,902,800	0.50%	8,062,747	0.37%	2,840,053	0.13%
	28,577,308	1.32%	25,028,744	1.15%	3,548,564	0.16%
Alternative Cost Measures Alternative Assumptions						
Present Value of Future Benefits	545,177,374		373,399,959		171,777,415	
Present Value of Future Salary	20,330,863,063		20,330,863,063		20,330,863,063	
Accrued Liability	325,496,987		217,867,894		107,629,093	
1 Year Term Cost	34,342,487	1.58%	30,051,517	1.38%	4,290,970	0.20%
Aggregate Cost	58,193,593	2.68%	39,857,643	1.84%	18,335,950	0.84%
Unit Credit Normal Cost Amortization	24,836,203	1.14%	22,189,169	1.02%	2,647,034	0.12%
"Pension Funding"	15,683,789	0.72%	10,497,775	0.48%	5,186,014	0.24%
	40,519,992	1.87%	32,686,944	1.51%	7,833,048	0.36%

EXHIBIT H4

**State of Louisiana Retirement Systems
Disability Cost of Accrued Benefit Paid at 65**

	LASERS		Teachers		Total	
Number of Participants	66,943		84,612		151,555	
Compensation	1,548,407,194		2,170,167,043		3,718,574,237	
Alternative Cost Measures Current Assumptions						
Present Value of Future Benefits	27,643,157		114,536,365		142,179,522	
Present Value of Future Salary	12,467,371,446		20,668,476,440		33,135,847,886	
Accrued Liability	15,341,631		68,515,944		83,857,575	
1 Year Term Cost	1,441,680	0.09%	6,120,476	0.28%	7,562,156	0.20%
Aggregate Cost	3,433,191	0.22%	12,026,191	0.55%	15,955,684	0.43%
Unit Credit Normal Cost	1,195,777	0.08%	4,387,795	0.20%	5,583,572	0.15%
Amortization	739,223	0.05%	3,301,381	0.15%	4,040,604	0.11%
"Pension Funding"	1,935,000	0.12%	7,689,176	0.35%	9,624,176	0.26%
Alternative Cost Measures Alternative Assumptions						
Present Value of Future Benefits	78,717,933		206,363,558		285,081,491	
Present Value of Future Salary	12,314,640,036		20,330,863,063		32,645,503,099	
Accrued Liability	43,968,194		123,102,752		167,070,946	
1 Year Term Cost	4,590,294	0.30%	10,683,374	0.49%	15,273,668	0.41%
Aggregate Cost	9,897,765	0.64%	22,027,761	1.02%	32,472,978	0.87%
Unit Credit Normal Cost	3,410,540	0.22%	7,843,899	0.36%	11,254,439	0.30%
Amortization	2,118,569	0.14%	5,931,599	0.27%	8,050,168	0.22%
"Pension Funding"	5,529,109	0.36%	13,775,498	0.63%	19,304,607	0.52%

DISTRIBUTION H5

Louisiana State Employees' Retirement System
Distributions as of 07-01-1993

TABLE A: Disability Benefits One Year Term Cost By Age Groups as a Percent of Earnings
Reduced Pension and 65% of Pay Disability Benefit - All Participants - Actuarial Valuation Assumptions

Age Group	M A L E			F E M A L E			A L L		
	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage
00-19	0	393,286	.0000	0	217,618	.0000	0	610,904	.0000
20-24	0	18,126,882	.0000	0	16,723,000	.0000	0	34,849,882	.0000
25-29	0	46,983,508	.0000	0	68,225,085	.0000	0	115,208,593	.0000
30-34	109,532	71,504,397	.1532	182,658	117,740,609	.1551	292,190	189,245,206	.1544
35-39	408,901	94,618,566	.4322	718,673	165,980,353	.4330	1,127,574	260,598,919	.4327
40-44	897,110	113,710,964	.7889	1,353,125	173,338,977	.7806	2,250,235	287,049,941	.7839
45-49	1,664,543	111,428,858	1.4938	2,028,421	136,383,230	1.4873	3,692,964	247,812,088	1.4902
50-54	2,172,083	79,526,827	2.7313	2,497,588	92,041,542	2.7135	4,669,671	171,568,369	2.7218
55-59	1,908,516	56,553,172	3.3747	1,955,183	58,489,662	3.3428	3,863,699	115,042,834	3.3585
60-64	277,667	31,120,502	.8922	237,372	26,973,556	.8800	515,039	58,094,058	.8866
65-69	27,553	10,332,102	.2667	18,939	7,656,314	.2474	46,492	17,988,416	.2585
70-74	0	1,735,447	.0000	0	1,615,254	.0000	0	3,350,701	.0000
75-79	0	117,280	.0000	0	23,239	.0000	0	140,519	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	7,465,905	636,151,991	1.1736	8,991,959	865,408,439	1.0390	16,457,864	1,501,560,430	1.0961

TABLE B: Disability Benefits One Year Term Cost By Service Groups as a Percent of Earnings
Reduced Pension and 65% of Pay Disability Benefit - All Participants - Actuarial Valuation Assumptions

Service Group	M A L E			F E M A L E			A L L		
	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage
0	339,398	57,882,263	.5864	526,346	86,422,209	.6090	865,744	144,304,472	.5999
1	196,765	29,994,608	.6560	250,678	36,946,310	.6785	447,443	66,941,118	.6684
2	348,324	45,010,150	.7739	449,132	71,193,645	.6309	797,456	116,203,795	.6863
3	310,429	42,870,818	.7241	426,830	65,366,086	.6530	737,259	108,236,904	.6812
4	244,614	29,271,205	.8357	237,921	34,285,631	.6939	482,535	63,556,836	.7592
00-04	1,439,530	205,029,244	.7021	1,890,907	294,213,881	.6427	3,330,437	499,243,125	.6671
05-09	897,153	95,246,781	.9419	1,079,659	128,615,438	.8394	1,976,812	223,862,219	.8830
10-14	1,597,728	137,959,602	1.1581	2,129,384	200,937,197	1.0597	3,727,112	338,696,799	1.0998
15-19	1,259,143	93,834,667	1.3419	1,752,270	132,758,601	1.3199	3,011,413	226,593,468	1.3290
20-24	983,613	54,950,141	1.7900	1,214,068	69,972,727	1.7351	2,197,681	124,922,868	1.7592
25-29	960,734	37,351,046	2.5722	779,268	33,654,921	2.3155	1,740,002	71,005,967	2.4505
30-34	288,013	9,993,148	2.8821	130,816	4,561,101	2.8681	418,829	14,554,249	2.8777
35-39	39,649	1,764,222	2.2474	13,782	555,847	2.4795	53,431	2,320,069	2.3030
40+	342	22,940	1.4908	1,805	138,726	1.3011	2,147	161,666	1.3280
TOTAL	7,465,905	636,151,991	1.1736	8,991,959	865,408,439	1.0390	16,457,864	1,501,560,430	1.0961

DISTRIBUTION H6

Teachers Retirement System of Louisiana
Distributions as of 07-01-1993

TABLE A: Disability Benefits One Year Term Cost By Age Groups as a Percent of Earnings
Reduced Pension and 65% of Pay Disability Benefit - All Participants - Actuarial Valuation Assumptions

Age Group	M A L E			F E M A L E			A L L		
	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage
00-19	0	0	.0000	0	33,673	.0000	0	33,673	.0000
20-24	0	3,390,232	.0000	0	23,513,520	.0000	0	26,903,752	.0000
25-29	0	23,133,525	.0000	306	103,555,856	.0003	306	126,689,381	.0002
30-34	123,283	31,106,426	.3962	598,231	137,938,627	.4337	721,474	169,045,053	.4268
35-39	317,379	54,698,123	.5802	1,396,017	226,447,056	.6165	1,713,396	281,145,179	.6094
40-44	961,344	92,792,867	1.0360	3,559,703	333,262,030	1.0681	4,521,047	426,054,897	1.0611
45-49	1,968,973	121,448,214	1.6212	4,873,788	299,911,317	1.6251	6,842,761	421,359,531	1.6240
50-54	2,468,834	115,667,187	2.1344	4,795,488	220,657,536	2.1733	7,264,322	336,324,723	2.1599
55-59	1,631,428	70,474,184	2.3149	2,827,800	121,384,446	2.3296	4,459,228	191,858,630	2.3242
60-64	1,273,920	37,332,960	3.4123	1,796,806	55,161,448	3.2574	3,070,726	92,494,408	3.3199
65-69	345,291	11,671,142	2.9585	490,601	14,743,309	3.3276	835,892	26,414,451	3.1645
70-74	0	2,762,921	.0000	0	2,376,963	.0000	0	5,139,884	.0000
75-79	0	108,174	.0000	0	113,744	.0000	0	221,918	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	9,090,412	564,585,955	1.6101	20,338,740	1,539,099,525	1.3215	29,429,152	2,103,685,480	1.3989

TABLE B: Disability Benefits One Year Term Cost By Service Groups as a Percent of Earnings
Reduced Pension and 65% of Pay Disability Benefit - All Participants - Actuarial Valuation Assumptions

Service Group	M A L E			F E M A L E			A L L		
	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage	1YT Cost	Earnings	Percentage
0	41,713	7,112,956	.5864	156,143	26,931,243	.5798	197,856	34,044,199	.5812
1	138,687	21,267,794	.6521	411,589	77,773,514	.5292	550,276	99,041,308	.5556
2	158,546	22,685,514	.6989	611,808	90,626,509	.6731	770,354	113,312,023	.6799
3	164,927	23,323,593	.7071	455,949	66,054,043	.6903	620,876	89,377,636	.6947
4	163,965	18,576,304	.8827	617,271	77,810,430	.7933	781,236	96,386,734	.8105
00-04	667,838	92,966,161	.7184	2,252,760	339,195,739	.6641	2,920,598	432,161,900	.6758
05-09	844,705	79,110,321	1.0678	2,596,007	271,929,964	.9547	3,440,712	351,040,285	.9801
10-14	1,106,433	88,646,058	1.2481	3,235,519	270,948,083	1.1941	4,341,952	359,594,141	1.2075
15-19	1,487,135	98,221,475	1.5141	3,943,186	282,289,744	1.3969	5,430,321	380,511,219	1.4271
20-24	1,873,836	94,415,268	1.9847	3,960,801	212,102,799	1.8674	5,834,637	306,518,067	1.9035
25-29	2,083,494	80,490,023	2.5885	3,061,728	121,726,924	2.5152	5,145,222	202,216,947	2.5444
30-34	778,596	24,982,782	3.1165	914,406	31,795,394	2.8759	1,693,002	56,778,176	2.9818
35-39	224,875	4,911,269	4.5788	322,208	7,679,061	4.1959	547,083	12,590,330	4.3453
40+	23,500	842,598	2.7890	52,125	1,431,817	3.6405	75,625	2,274,415	3.3250
TOTAL	9,090,412	564,585,955	1.6101	20,338,740	1,539,099,525	1.3215	29,429,152	2,103,685,480	1.3989

DISTRIBUTION H7

Louisiana State Employees' Retirement System
Distributions as of 07-01-1993

TABLE A: Comparison of Disability Benefit One Year Term Costs By Age Groups
Reduced Pension and 65% of Pay Disability Benefit Compared to Current Plan - All Participants - Actuarial Valuation Assumptions

Age Group	M A L E			F E M A L E			A L L		
	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio
00-19	0	0	.0000	0	0	.0000	0	0	.0000
20-24	0	0	.0000	0	0	.0000	0	0	.0000
25-29	0	-3	.0000	0	12	.0000	0	8	.0000
30-34	109,532	17,175	6.3774	182,658	28,673	6.3704	292,190	45,848	6.3730
35-39	408,901	121,651	3.3613	718,673	222,050	3.2365	1,127,574	343,701	3.2807
40-44	897,110	380,236	2.3594	1,353,125	568,912	2.3784	2,250,235	949,148	2.3708
45-49	1,664,543	865,976	1.8788	2,028,421	1,025,743	1.9775	3,692,964	1,911,719	1.9318
50-54	2,172,083	1,383,941	1.5695	2,497,588	1,430,434	1.7460	4,669,671	2,814,375	1.6592
55-59	1,908,516	1,239,991	1.5391	1,955,183	1,219,105	1.6038	3,863,699	2,459,096	1.5712
60-64	277,667	206,054	1.3475	237,372	178,237	1.3318	515,039	384,291	1.3402
65-69	27,553	27,556	.9999	18,939	18,926	1.0007	46,492	46,482	1.0002
70-74	0	0	.0000	0	0	.0000	0	0	.0000
75-79	0	0	.0000	0	0	.0000	0	0	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	7,465,905	4,262,576	1.7515	8,991,959	4,692,092	1.9164	16,457,864	8,954,668	1.8379

TABLE A: Comparison of Disability Benefits One Year Term Costs By Service Groups
Reduced Pension and 65% of Pay Disability Benefit Compared to Current Plan - All Participants - Actuarial Valuation Assumptions

Service Group	M A L E			F E M A L E			A L L		
	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio
0	339,398	197,172.8325	1.7198	526,346	0	.0000	865,744	197,4394.6396	4.3847
1	196,765	2*****	0.0000	250,678	0	.0000	447,443	2*****	0.0000
2	348,324	2,388	145.8643	449,132	511	878.9276	797,456	2,899	275.0797
3	310,429	346	897.1936	426,830	416	1026.0337	737,259	762	967.5315
4	244,614	2,512	97.3782	237,921	13*****	0.0000	482,535	2,525	191.1030
00-04	1,439,530	5,445	264.3765	1,890,907	940	2011.6032	3,330,437	6,385	521.6033
05-09	897,153	57,734	15.5394	1,079,659	68,782	15.6968	1,976,812	126,516	15.6250
10-14	1,597,728	919,895	1.7369	2,129,384	1,205,300	1.7667	3,727,112	2,125,195	1.7538
15-19	1,259,143	945,560	1.3316	1,752,270	1,301,400	1.3464	3,011,411	2,246,960	1.3402
20-24	983,613	904,898	1.0870	1,214,068	1,105,097	1.0986	2,197,681	2,009,995	1.0934
25-29	960,734	1,040,149	.9237	779,268	834,267	.9341	1,740,001	1,874,416	.9283
30-34	288,013	340,078	.8469	130,816	156,813	.8342	418,829	496,891	.8429
35-39	39,649	48,467	.8181	13,782	17,469	.7889	53,431	65,936	.8103
40+	7,465,905	4,262,576	1.7515	8,991,959	4,692,092	1.9164	16,457,864	8,954,668	1.8379

DISTRIBUTION H8

Teachers Retirement System of Louisiana
Distributions as of 07-01-1993

TABLE A: Comparison of Disability Benefit One Year Term Costs By Age Groups
Reduced Pension and 65% of Pay Disability Benefit Compared to Current Plan - All Participants - Actuarial Valuation Assumptions

Age Group	M A L L E			F E M A L L E			A L L L		
	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio
00-19	0	0	.0000	0	0	.0000	0	0	.0000
20-24	0	0	.0000	0	0	.0000	0	0	.0000
25-29	0	100	.0000	306	683	.4480	306	783	.3908
30-34	123,160	71,301	1.7276	598,201	364,049	1.6432	721,381	435,350	1.6570
35-39	317,435	241,249	1.3158	1,396,449	1,003,688	1.3913	1,713,894	1,244,937	1.3767
40-44	961,240	788,921	1.2184	3,559,825	2,817,500	1.2635	4,521,065	3,606,421	1.2536
45-49	1,969,082	1,645,477	1.1967	4,873,646	3,969,800	1.2277	6,842,728	5,615,277	1.2186
50-54	2,468,997	2,131,277	1.1585	4,795,043	4,369,946	1.0973	7,264,040	6,501,223	1.1173
55-59	1,631,418	1,431,634	1.1395	2,827,947	2,917,406	.9693	4,459,365	4,349,040	1.0254
60-64	1,275,906	1,125,333	1.1320	1,796,764	1,733,028	1.0368	3,070,670	2,858,361	1.0743
65-69	345,297	348,958	.9895	490,601	497,409	.9863	835,892	846,367	.9876
70-74	0	0	.0000	0	0	.0000	0	0	.0000
75-79	0	0	.0000	0	0	.0000	0	0	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	9,090,549	7,784,250	1.1678	20,338,782	17,673,509	1.1508	29,429,331	25,457,759	1.1560

TABLE A: Comparison of Disability Benefits One Year Term Costs By Service Groups
Reduced Pension and 65% of Pay Disability Benefit Compared to Current Plan - All Participants - Actuarial Valuation Assumptions

Service Group	M A L L E			F E M A L L E			A L L L		
	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio
0	41,710	0	.0000	156,388	0	.0000	198,098	0	.0000
1	138,714	0	.0000	411,266	0	.0000	549,980	0	.0000
2	158,524	0	.0000	612,078	0	.0000	770,602	0	.0000
3	165,001	172	959.3081	455,934	2401899.7250	0.1899	620,935	4121507.1238	0.1507
4	163,967	42,865	3.8252	616,870	152,900	4.0345	780,837	195,765	3.9886
00-04	667,916	43,037	15.5196	2,252,536	153,140	14.7090	2,920,452	196,177	14.8848
05-09	844,645	652,625	1.2943	2,595,950	2,045,633	1.2690	3,440,615	2,698,258	1.2751
10-14	1,106,452	994,289	1.1128	3,235,650	3,251,484	.9951	4,342,102	4,245,773	1.0227
15-19	1,487,044	1,351,523	1.1003	3,943,309	3,898,933	1.0114	5,430,353	5,250,456	1.0343
20-24	1,873,855	1,651,914	1.1344	3,960,910	3,766,044	1.0517	5,834,765	5,417,958	1.0769
25-29	2,083,640	2,013,122	1.0350	3,061,751	3,120,255	.9812	5,145,371	5,133,377	1.0023
30-34	778,600	819,095	.9506	914,363	1,023,720	.8932	1,692,963	1,842,615	.9187
35-39	224,877	235,374	.9554	322,207	360,238	.8944	547,084	595,612	.9185
40+	23,500	23,271	1.0098	52,126	54,062	.9642	75,626	77,333	.9779
TOTAL	9,090,549	7,784,250	1.1678	20,338,782	17,673,509	1.1508	29,429,331	25,457,759	1.1560

DISTRIBUTION H9

Teachers Retirement System of Louisiana
Distributions as of 07-01-1993

TABLE A: Comparison of Disability Benefit One Year Term Costs By Age Groups
Reduced Pension and 65% of Pay Disability Benefit Compared to Current Plan - All Participants - Alternative Actuarial Assumptions

Age Group	M A L E			F E M A L E			A L L		
	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio
00-19	0	0	.0000	128	0	.0000	128	0	.0000
20-24	8,592	0	.0000	91,618	285,321	4.667	100,210	285,321	3.514
25-29	64,939	10,163	6.3897	464,398	117,125	3.9650	529,337	127,288	4.1586
30-34	105,361	54,934	1.9180	850,127	496,484	1.7123	955,488	551,418	1.7328
35-39	260,069	196,049	1.3266	2,157,979	1,525,831	1.4143	2,418,048	1,721,880	1.4043
40-44	685,564	560,716	1.2227	4,408,823	3,373,479	1.3069	5,094,387	3,934,193	1.2949
45-49	1,577,388	1,331,473	1.1847	5,856,264	4,677,542	1.2520	7,833,652	6,009,015	1.2371
50-54	2,765,517	2,447,692	1.1298	6,657,553	5,789,550	1.1499	9,423,070	8,237,242	1.1440
55-59	3,069,939	2,744,748	1.1185	5,222,334	4,824,125	1.0826	8,292,473	7,568,873	1.0956
60-64	2,257,919	2,041,516	1.1060	2,759,813	2,639,262	1.0457	5,017,732	4,680,778	1.0720
65-69	688,388	697,233	.9873	779,431	814,643	.9568	1,467,819	1,511,876	.9709
70-74	0	0	.0000	0	0	.0000	0	0	.0000
75-79	0	0	.0000	0	0	.0000	0	0	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	11,483,676	10,084,522	1.1387	29,248,668	24,258,326	1.2057	40,732,344	34,342,848	1.1861

TABLE A: Comparison of Disability Benefits One Year Term Costs By Service Groups
Reduced Pension and 65% of Pay Disability Benefit Compared to Current Plan - All Participants - Alternative Actuarial Assumptions

Service Group	M A L E			F E M A L E			A L L		
	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio
0	43,520	0	.0000	248,105	0	.0000	291,625	0	.0000
1	145,893	0	.0000	674,694	0	.0000	820,587	0	.0000
2	175,856	0	.0000	926,477	0	.0000	1,102,333	0	.0000
3	173,546	1191458	3.697	697,387	3402051	1.1382	870,753	4591897	4.575
4	177,186	42,634	4.1560	898,170	227,277	3.9519	1,075,356	269,911	3.9841
00-04	716,001	42,753	16.7474	3,444,833	227,617	15.1343	4,160,634	270,370	15.3894
05-09	902,238	662,318	1.3622	3,611,954	2,825,256	1.2785	4,514,192	3,487,574	1.2944
10-14	1,187,597	1,017,493	1.1672	4,354,519	3,912,425	1.1130	5,542,116	4,929,918	1.1242
15-19	1,606,237	1,451,324	1.1067	5,400,409	4,952,818	1.0904	7,006,646	6,404,142	1.0941
20-24	2,213,661	2,002,048	1.1057	5,460,557	5,029,794	1.0856	7,674,218	7,031,842	1.0914
25-29	2,988,948	2,942,033	1.0159	4,620,346	4,709,893	.9810	7,609,294	7,651,926	.9944
30-34	1,400,817	1,478,608	.9474	1,680,903	1,857,614	.9049	3,081,720	3,336,222	.9237
35-39	421,433	441,586	.9544	578,362	641,199	.9020	999,795	1,082,765	.9234
40+	46,744	46,359	1.0083	96,785	101,710	.9516	143,529	148,069	.9693
TOTAL	11,483,676	10,084,522	1.1387	29,248,668	24,258,326	1.2057	40,732,344	34,342,848	1.1861

DISTRIBUTION H10

Louisiana State Employees' Retirement System
Distributions as of 07-01-1993

TABLE A: Comparison of Present Value of Future Disability Benefits by Age Groups
Reduced Pension and 65% of Pay Disability Benefit Compared to Current Plan - All Participants - Actuarial Valuation Assumptions

Age Group	M A L L E			F E M A L E			A L L		
	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio
00-19	6,494	6,478	1.0025	3,610	3,556	1.0152	10,104	10,034	1.0070
20-24	604,962	565,908	1.0690	593,257	553,218	1.0725	1,198,219	1,119,086	1.0707
25-29	2,801,119	2,391,902	1.1711	4,534,867	3,932,201	1.1533	7,335,986	6,324,103	1.1600
30-34	6,754,267	5,460,377	1.2370	12,361,938	10,287,519	1.2016	19,116,205	15,747,896	1.2139
35-39	12,838,262	10,180,139	1.2611	24,391,745	19,923,964	1.2242	37,230,007	30,104,103	1.2367
40-44	19,329,743	15,185,959	1.2729	30,918,788	24,567,224	1.2585	50,248,531	39,753,183	1.2640
45-49	21,110,504	15,984,046	1.3207	27,223,450	20,329,856	1.3391	48,533,954	36,513,902	1.3310
50-54	13,101,690	9,633,939	1.3600	16,519,538	11,696,579	1.4123	29,621,248	21,330,518	1.3887
55-59	6,009,123	4,163,997	1.4431	6,896,236	4,814,487	1.4324	12,905,359	8,978,484	1.4374
60-64	677,062	554,259	1.2216	570,627	471,128	1.2112	1,247,689	1,025,387	1.2168
65-69	27,534	27,544	.9996	18,868	18,902	.9982	46,402	46,446	.9991
70-74	0	0	1.0000	0	0	.0000	0	0	1.0000
75-79	0	0	.0000	0	0	.0000	0	0	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	83,260,759	64,154,547	1.2978	124,032,944	96,598,594	1.2840	207,293,703	160,753,141	1.2895

TABLE B: Comparison of Present Value of Future Disability Benefits by Service Groups
Reduced Pension and 65% of Pay Disability Benefit Compared to Current Plan - All Participants - Actuarial Valuation Assumptions

Service Group	M A L L E			F E M A L E			A L L		
	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio
0	3,524,323	1,374,477	2.5641	5,996,786	2,381,966	2.5176	9,521,109	3,756,443	2.5346
1	2,541,677	1,060,236	2.3973	3,339,297	1,452,061	2.2997	5,880,974	2,512,297	2.3409
2	4,850,363	2,186,339	2.2165	8,292,706	4,047,847	2.0487	13,143,069	6,236,166	2.1075
3	5,135,089	2,583,930	1.9873	8,313,876	4,485,233	1.8536	13,448,965	7,069,163	1.9025
4	3,859,400	1,985,259	1.9440	4,839,035	2,719,679	1.7793	8,698,435	4,704,938	1.8488
00-04	19,910,852	9,192,241	2.1660	30,781,700	15,086,786	2.0403	50,692,552	24,279,027	2.0879
05-09	14,199,470	9,215,536	1.5408	21,526,928	14,891,475	1.4456	35,726,398	24,107,011	1.4820
10-14	22,136,467	18,489,649	1.1972	35,562,021	30,320,709	1.1663	57,498,488	48,810,358	1.1780
15-19	14,398,871	13,652,492	1.0547	22,148,662	21,113,987	1.0490	36,547,533	34,766,479	1.0512
20-24	7,882,676	8,205,618	.9606	10,283,555	10,715,440	.9597	18,166,231	18,921,058	.9601
25-29	3,964,699	4,483,970	.8842	3,582,119	4,048,599	.8848	7,546,818	8,532,569	.8845
30-34	686,448	818,326	.8388	310,816	376,370	.8258	997,264	1,194,696	.8347
35-39	80,619	96,048	.8394	32,305	40,054	.8065	112,924	136,102	.8297
40+	657	667	.9850	4,838	5,174	.9351	5,495	5,841	.9408
TOTAL	83,260,759	64,154,547	1.2978	124,032,944	96,598,594	1.2840	207,293,703	160,753,141	1.2895

DISTRIBUTION H11

Louisiana State Employees' Retirement System
Distributions as of 07-01-1993

TABLE A: Comparison of Present Value of Future Disability Benefits by Age Groups
Reduced Pension and 65% of Pay Disability Benefit Compared to Current Plan - All Participants - Alternative Actuarial Assumptions

Age Group	M A L L E			F E M A L E			A L L		
	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio
00-19	12,103	6,692	1.8086	10,952	5,966	1.8337	23,055	12,658	1.8214
20-24	915,510	562,061	1.6288	1,355,753	811,459	1.6708	2,271,263	1,373,540	1.6536
25-29	3,769,597	2,442,001	1.5437	8,907,184	5,605,541	1.5890	12,676,781	8,047,542	1.5752
30-34	8,217,771	5,675,573	1.4479	21,733,641	14,748,537	1.4736	29,951,412	20,424,110	1.4665
35-39	15,588,187	11,001,654	1.4169	40,243,262	28,183,518	1.4279	55,831,449	39,185,172	1.4248
40-44	24,493,509	17,149,669	1.4282	49,539,905	34,523,608	1.4350	74,033,414	51,673,277	1.4327
45-49	28,781,352	19,488,239	1.4769	43,830,212	29,307,274	1.4887	72,411,564	48,795,513	1.4840
50-54	22,203,046	14,458,741	1.5356	29,773,047	19,231,703	1.5481	51,976,093	33,690,444	1.5428
55-59	15,008,299	9,454,210	1.5875	16,243,003	10,512,874	1.5451	31,251,302	19,967,084	1.5651
60-64	5,596,797	4,304,635	1.3002	4,130,139	3,293,613	1.2540	9,726,936	7,598,248	1.2802
65-69	965,709	972,681	.9928	589,335	609,055	.9676	1,555,044	1,581,736	.9831
70-74	16,271	17,531	.9281	0	0	.0000	16,271	17,531	.9281
75-79	0	0	.0000	0	0	.0000	0	0	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	125,568,151	85,533,707	1.4681	216,156,433	146,833,148	1.4721	341,724,584	232,366,855	1.4706

TABLE B: Comparison of Present Value of Future Disability Benefits by Service Groups
Reduced Pension and 65% of Pay Disability Benefit Compared to Current Plan - All Participants - Alternative Actuarial Assumptions

Service Group	M A L L E			F E M A L E			A L L		
	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio
0	4,758,915	1,865,962	2.5504	9,953,007	3,718,628	2.6765	14,711,922	5,584,590	2.6344
1	3,480,725	1,463,579	2.3782	5,594,326	2,283,587	2.4498	9,075,051	3,747,166	2.4218
2	6,654,404	2,996,423	2.2208	13,844,311	6,270,485	2.2079	20,498,715	9,266,908	2.2120
3	7,132,668	3,498,442	2.0388	14,009,206	6,873,941	2.0380	21,141,874	10,372,383	2.0383
4	5,427,388	2,748,435	1.9747	8,150,812	4,203,629	1.9390	13,578,200	6,952,064	1.9531
00-04	27,454,100	12,572,841	2.1836	51,551,662	23,350,270	2.2078	79,005,762	35,923,111	2.1993
05-09	21,186,080	12,849,799	1.6487	37,005,291	22,988,403	1.6097	58,191,371	35,838,202	1.6237
10-14	33,841,213	24,544,022	1.3788	62,214,644	46,199,863	1.3466	96,055,857	70,743,885	1.3578
15-19	21,547,602	17,099,631	1.2601	39,312,939	31,659,505	1.2417	60,860,541	48,759,136	1.2482
20-24	12,272,467	10,362,699	1.1843	18,502,501	15,838,714	1.1682	30,774,968	26,201,413	1.1746
25-29	6,893,722	6,027,201	1.1438	6,654,528	5,969,458	1.1148	13,548,250	11,996,659	1.1293
30-34	1,894,232	1,655,256	1.1444	747,179	674,022	1.1085	2,641,411	2,329,278	1.1291
35-39	472,582	416,214	1.1354	127,863	115,598	1.1061	600,445	531,812	1.1291
40+	6,153	6,044	1.0180	39,826	37,315	1.0673	45,979	43,359	1.0604
TOTAL	125,568,151	85,533,707	1.4681	216,156,433	146,833,148	1.4721	341,724,584	232,366,855	1.4706

DISTRIBUTION H12

Teachers Retirement System of Louisiana
Distributions as of 07-01-1993

TABLE A: Comparison of Present Value of Future Disability Benefits by Age Groups
Reduced Pension and 65% of Pay Disability Benefit Compared to Current Plan - All Participants - Actuarial Valuation Assumptions

Age Group	M A L L E			F E M A L E			A L L		
	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio
00-19	0	0	.0000	2,395	2,445	.9796	2,395	2,445	.9796
20-24	328,420	318,384	1.0315	2,340,153	2,264,797	1.0333	2,668,573	2,583,181	1.0331
25-29	3,129,006	2,974,032	1.0521	14,644,323	13,916,094	1.0523	17,773,329	16,890,126	1.0523
30-34	5,440,965	5,122,450	1.0622	25,377,952	23,617,515	1.0745	30,818,917	28,739,965	1.0723
35-39	10,987,014	10,388,977	1.0576	46,766,207	43,843,715	1.0667	57,753,221	54,232,692	1.0649
40-44	19,926,320	18,429,082	1.0812	73,902,998	68,730,161	1.0753	93,829,318	87,159,243	1.0765
45-49	25,660,970	23,338,197	1.0986	66,799,082	61,965,299	1.0780	92,460,052	85,323,496	1.0836
50-54	20,120,760	18,576,943	1.0831	40,834,437	39,685,292	1.0290	60,955,197	58,262,235	1.0462
55-59	11,196,667	10,277,211	1.0895	19,630,718	19,731,224	.9949	30,827,385	30,008,435	1.0273
60-64	4,581,928	4,264,455	1.0694	6,666,598	6,594,418	1.0109	11,246,526	10,678,673	1.0340
65-69	802,921	810,677	.9904	1,123,329	1,134,917	.9898	1,926,250	1,945,594	.9901
70-74	0	0	.0000	0	0	.0000	0	0	.0000
75-79	0	0	.0000	0	0	.0000	0	0	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	102,174,971	94,540,408	1.0808	298,088,192	281,485,877	1.0590	400,263,163	376,026,285	1.0645

TABLE B: Comparison of Present Value of Future Disability Benefits by Service Groups
Reduced Pension and 65% of Pay Disability Benefit Compared to Current Plan - All Participants - Actuarial Valuation Assumptions

Service Group	M A L L E			F E M A L E			A L L		
	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio
0	955,419	675,202	1.4150	3,817,023	2,677,568	1.4256	4,772,442	3,352,770	1.4234
1	2,998,099	2,120,126	1.4141	11,232,781	8,312,795	1.3513	14,230,880	10,432,921	1.3640
2	3,612,405	2,651,821	1.3622	15,648,444	11,676,863	1.3401	19,260,849	14,328,684	1.3442
3	4,109,229	3,230,117	1.2722	12,450,270	9,726,029	1.2801	16,559,499	12,956,146	1.2781
4	3,509,395	2,823,300	1.2430	15,766,945	12,725,351	1.2390	19,276,340	15,548,651	1.2397
00-04	15,184,547	11,500,566	1.3203	58,915,463	45,118,606	1.3058	74,100,010	56,619,172	1.3087
05-09	17,935,823	13,729,534	1.1607	59,272,544	51,585,608	1.1490	75,208,367	65,315,142	1.1515
10-14	17,656,481	16,493,688	1.0705	57,258,129	57,248,247	1.0002	74,914,610	73,741,935	1.0159
15-19	18,290,607	17,266,600	1.0593	55,402,859	56,291,203	.9842	73,693,466	73,557,803	1.0018
20-24	16,587,959	16,320,941	1.0164	39,418,236	40,969,352	.9621	56,006,195	57,290,293	.9776
25-29	13,484,636	13,901,310	.9700	21,037,506	22,764,452	.9241	34,522,142	36,665,762	.9415
30-34	4,173,048	4,442,122	.9394	5,327,407	5,943,658	.6933	9,500,455	10,385,780	.9148
35-39	801,008	825,017	.9709	1,308,503	1,414,251	.9252	2,109,511	2,239,268	.9421
40+	60,862	60,630	1.0038	147,545	150,500	.9804	208,407	211,130	.9871
TOTAL	102,174,971	94,540,408	1.0808	298,088,192	281,485,877	1.0590	400,263,163	376,026,285	1.0645

DISTRIBUTION H13

Teachers Retirement System of Louisiana
Distributions as of 07-01-1993

TABLE A: Comparison of Present Value of Future Disability Benefits by Age Groups
Reduced Pension and 65% of Pay Disability Benefit Compared to Current Plan - All Participants - Alternative Actuarial Assumptions

Age Group	M A L L E			F E M A L E			A L L		
	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio
00-19	0	0	.0000	4,290	3,900	1.1000	4,290	3,900	1.1000
20-24	379,499	352,139	1.0777	3,761,415	3,395,704	1.1077	4,140,914	3,747,843	1.1049
25-29	3,396,185	3,210,805	1.0577	21,779,473	20,297,780	1.0730	25,175,658	23,508,585	1.0709
30-34	5,659,064	5,430,362	1.0421	35,295,783	33,257,732	1.0613	40,954,847	38,686,094	1.0586
35-39	12,047,424	11,597,897	1.0388	65,681,726	61,879,133	1.0615	77,729,150	73,477,030	1.0579
40-44	23,349,291	22,162,512	1.0535	104,329,246	97,434,761	1.0708	127,678,537	119,597,273	1.0676
45-49	33,440,483	31,328,055	1.0674	97,475,671	90,064,848	1.0823	130,916,154	121,592,903	1.0764
50-54	31,773,809	29,946,137	1.0610	65,945,922	62,214,481	1.0600	97,719,731	92,160,618	1.0603
55-59	20,249,226	18,873,511	1.0729	32,370,975	31,250,304	1.0359	52,620,201	50,123,815	1.0498
60-64	8,685,095	8,254,376	1.0522	10,671,802	10,658,861	1.0012	19,356,897	18,913,237	1.0235
65-69	1,609,478	1,629,015	.9880	1,855,997	1,935,463	.9589	3,465,475	3,564,478	.9722
70-74	0	0	.0000	0	0	.0000	0	0	.0000
75-79	0	0	.0000	0	0	.0000	0	0	.0000
80-84	0	0	.0000	0	0	.0000	0	0	.0000
85+	0	0	.0000	0	0	.0000	0	0	.0000
TOTAL	140,589,554	132,784,809	1.0588	439,172,300	412,390,967	1.0649	579,761,854	545,175,776	1.0634

TABLE B: Comparison of Present Value of Future Disability Benefits by Service Groups
Reduced Pension and 65% of Pay Disability Benefit Compared to Current Plan - All Participants - Alternative Actuarial Assumptions

Service Group	M A L L E			F E M A L E			A L L		
	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio	Plan 1	Plan 2	Ratio
0	1,138,891	830,017	1.3721	5,525,819	3,938,702	1.4030	6,664,710	4,768,719	1.3976
1	3,626,008	2,632,684	1.3773	16,375,055	12,244,113	1.3374	20,001,063	14,876,797	1.3444
2	4,422,492	3,303,661	1.3387	22,581,021	17,218,351	1.3115	27,003,513	20,522,012	1.3158
3	4,947,423	3,948,227	1.2531	17,934,253	14,290,831	1.2549	22,881,676	18,239,058	1.2545
4	4,392,555	3,547,700	1.2381	22,636,205	18,691,920	1.2110	27,028,760	22,239,620	1.2153
00-04	18,527,369	14,262,289	1.2990	85,052,353	66,383,917	1.2812	105,577,722	80,646,206	1.2844
05-09	20,341,852	17,596,176	1.1560	85,135,849	75,127,778	1.1332	105,477,701	92,723,954	1.1375
10-14	22,664,343	21,126,016	1.0728	82,163,064	78,720,193	1.0437	104,827,407	99,846,209	1.0499
15-19	23,926,621	23,101,626	1.0357	80,266,180	79,634,186	1.0079	104,192,801	102,735,812	1.0142
20-24	23,602,801	23,740,014	.9942	59,535,880	61,534,488	.9675	83,136,681	85,274,502	.9750
25-29	22,213,490	23,112,711	.9611	34,976,709	37,733,598	.9269	57,190,199	60,846,309	.9399
30-34	7,648,707	8,136,060	.9401	9,496,760	10,513,512	.9033	17,145,467	18,649,572	.9193
35-39	1,541,759	1,587,495	.9712	2,279,790	2,466,161	.9244	3,821,549	4,053,656	.9427
40+	122,612	122,422	1.0016	265,715	277,134	.9588	389,327	399,556	.9719
TOTAL	140,589,554	132,784,809	1.0588	439,172,300	412,390,967	1.0649	579,761,854	545,175,776	1.0634

Section I - Employer Survey

Survey life and disability plans of major Louisiana employers. Ascertain whether they use a defined contribution or a defined benefit retirement plan. The Legislative Auditor will provide M&R a list of major Louisiana employers, not to exceed ten employers. Compare in-service death and disability coverages of Louisiana state employees including major coverage provisions, total cost per employee and cost sharing to similar information from these major Louisiana employers. Integrate this information for life and disability coverages with information from the review described in item 4b.

Section I - Employer Survey

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Sections

Employer Survey Summary

Individual Employer Summary

Acadian Ambulance Service, Inc.
Albemarle Corporation
BellSouth
Blue Cross & Blue Shield of Louisiana
Capital City Press
Entergy
Exxon
General Health System
Pan-American Life Insurance Company
Tidewater Marine

Exhibit 11 Comparison of Defined Benefit Formulas

Exhibit 12 Comparison of Employer Contributions to Defined Contribution Plans

Exhibit 13 Comparison of Disability Benefits

Exhibit 14 Comparison of PreRetirement Death Benefits

Employer Survey Summary

M&R received information from ten employers. All ten employers said that they were satisfied with their current employee benefit structure. The Individual Employer Summary describes their plans.

Exhibit I1 is a comparison of the benefit formula of these plans. Of the ten employers, eight have defined benefit pension plans. One employer has two plans - a plan for salaried employees and a plan for hourly employees. Six of these plans are integrated for Social Security. When comparing these plans with the benefits of plans sponsored by the State of Louisiana, the age 65 normal retirement age of most of these plans must be taken into consideration. None of these plans require employee contributions.

One employer recently changed one of their plans from a traditional defined benefit pension plan to a cash balance plan. A cash balance plan is a defined benefit pension plan in which account balances are reported to the employees and contributions to the plan are credited to the accounts on a percent of pay basis. However, the benefits from the plan are paid in the form of an annuity which may have a larger value than the participant's account balance.

Exhibit I2 is a comparison of the employer contributions to a defined contribution plan. Of the ten employees, nine have a 401(k) plan in which employees may make pre-tax contributions. In eight of these plans, the employer automatically makes a match which ranges from 1.5% to 6% of employee earnings.

Exhibit I3 is a comparison of disability benefits provided by the employers. The majority of the employers provided only the accrued benefit as a disability benefit with no additional service from the pension plan. Only two employers provided for the accrual of service after the participant becomes disabled. The commencement of disability benefits is usually coordinated with sickness and long term disability benefits provided outside of the pension plan. None of these employers required that the participant must be eligible for Social Security disability benefits which may indicate a more lax definition of disability in the pension plans. Nine of the ten employers provided for long term disability benefits outside of the plan. The monthly benefits ranged from 50% to 65% of pay. Almost all of the plans provided that the benefit payable from this plan would be offset by other income benefits, including Social Security and pension plan benefits, that the disabled participant was receiving. Six of the nine employers providing for long term disability benefits outside of the plan pay for the entire cost of the plan. The exhibit does not show that the participants are also entitled to their account balances in the defined contribution plans.

Exhibit I4 is a comparison of preretirement death benefits provided by the employers. All of the pension plans provided for a monthly benefit payable to the spouse, usually some variation of the

qualified preretirement survivor annuity (defined in section B). Only three of the plans provided for other benefits. Nine of the ten employers provided for insurance benefits. For all employers who provided information, the basic insurance provided was a multiple of annual pay. Basic insurance amount averaged out to a little over one times pay and was provided at no cost of the employee. Accidental death and disability insurance usually in an amount equal to the amount of basic insurance was provided by eight of the ten employers. This insurance was usually provided at no cost to the employee. The majority of the employees provide optional supplemental life insurance coverage, but the employee usually pays the full cost. Approximately fifty percent provided for optional insurance coverage for the employee's spouse and children, but the employee usually pays the full cost. The exhibit does not show that the participant's beneficiaries are also entitled to their account balances in the defined contribution plans.

The findings of this Louisiana employer survey were very similar to the findings of the review in Section B of this report.

Appendix 1

Actuarial Assumptions

Two sets of actuarial assumptions were used in determining the expected values. The first set of actuarial assumptions is Assumptions used in the actuarial valuation of the Retirement Systems as of July 1, 1993.

The second set of assumptions incorporates the underlying morbidity and mortality rates that might be used to self fund an in-service disability income plan. For this purpose, we used the 1975-80 Basic Ultimate Mortality Table for the mortality rates. For the incidence of disability we used the 6 month elimination period rates published in the Group Long-Term Disability Valuation Tables by the Society of Actuaries in January 1987. For purposes of post-disability death and recovery rate, we used a 10 year select and ultimate table derived from the 1985 Group Long Term Disability Rates also rates published in the Group Long-Term Disability Valuation Tables by the Society of Actuaries in January 1987.

The following Tables compare the actuarial valuation and these alternative assumptions.

Comparison of Mortality Assumption

Comparison of Disability Incidence Rates - Teachers

Comparison of Disability Incidence Rates - LASERS

Males - Select Period for Post-Disability Death and Recovery Derived from 1985 GLTD Table

Females - Select Period for Post-Disability Death and Recovery Derived from 1985 GLTD Table

Comparison of Post-Disability Death and Recovery Rates

Comparison of Mortality Assumption

Age	Males			Females		
	Valuation	1975-80 Ultimate	Ratio	Valuation	1975-80 Ultimate	Ratio
20	0.000419	0.00137	3.270	0.000223	0.00051	2.287
21	0.000435	0.00140	3.218	0.000236	0.00052	2.203
22	0.000453	0.00141	3.113	0.000250	0.00053	2.120
23	0.000471	0.00140	2.972	0.000265	0.00053	2.000
24	0.000493	0.00138	2.799	0.000281	0.00053	1.886
25	0.000515	0.00134	2.602	0.000298	0.00053	1.779
26	0.000542	0.00129	2.380	0.000315	0.00053	1.683
27	0.000570	0.00124	2.175	0.000335	0.00053	1.582
28	0.000602	0.00120	1.993	0.000356	0.00053	1.489
29	0.000636	0.00117	1.840	0.000380	0.00054	1.421
30	0.000674	0.00114	1.691	0.000404	0.00055	1.361
31	0.000717	0.00112	1.562	0.000431	0.00058	1.346
32	0.000763	0.00111	1.455	0.000460	0.00061	1.326
33	0.000815	0.00112	1.374	0.000492	0.00065	1.321
34	0.000872	0.00114	1.307	0.000529	0.00070	1.323
35	0.000955	0.00117	1.225	0.000558	0.00077	1.380
36	0.001008	0.00122	1.210	0.000595	0.00084	1.412
37	0.001073	0.00128	1.193	0.000637	0.00093	1.460
38	0.001154	0.00136	1.179	0.000686	0.00103	1.501
39	0.001253	0.00145	1.157	0.000739	0.00115	1.556
40	0.001375	0.00156	1.135	0.000796	0.00129	1.621
41	0.001522	0.00170	1.117	0.000861	0.00145	1.684
42	0.001697	0.00187	1.102	0.000935	0.00162	1.733
43	0.001905	0.00207	1.087	0.001021	0.00179	1.753
44	0.002147	0.00231	1.076	0.001122	0.00196	1.747
45	0.002426	0.00258	1.063	0.001241	0.00214	1.724
46	0.002745	0.00289	1.053	0.001374	0.00233	1.696
47	0.003100	0.00324	1.045	0.001518	0.00252	1.660
48	0.003487	0.00361	1.035	0.001672	0.00272	1.627
49	0.003903	0.00402	1.030	0.001830	0.00293	1.601
50	0.004343	0.00445	1.025	0.001992	0.00317	1.591
51	0.004804	0.00492	1.024	0.002165	0.00343	1.584
52	0.005283	0.00544	1.030	0.002355	0.00371	1.575
53	0.005778	0.00600	1.038	0.002572	0.00404	1.571
54	0.006289	0.00661	1.051	0.002823	0.00440	1.559
55	0.006812	0.00727	1.067	0.003114	0.00480	1.541
56	0.007353	0.00801	1.089	0.003448	0.00523	1.517
57	0.007932	0.00882	1.112	0.003824	0.00570	1.491
58	0.008577	0.00973	1.134	0.004246	0.00622	1.465
59	0.009315	0.01075	1.154	0.004712	0.00678	1.439
60	0.010175	0.01180	1.160	0.005225	0.00737	1.411
61	0.011182	0.01317	1.178	0.005789	0.00800	1.382
62	0.012370	0.01457	1.178	0.006410	0.00867	1.353
63	0.013768	0.01607	1.167	0.007095	0.00938	1.322
64	0.015409	0.01771	1.149	0.007849	0.01015	1.293
65	0.017324	0.01950	1.126	0.008686	0.01099	1.265
66	0.019532	0.02147	1.099	0.009646	0.01191	1.235
67	0.022004	0.02365	1.075	0.010780	0.01292	1.199
68	0.024699	0.02605	1.055	0.012135	0.01403	1.156
69	0.027574	0.02869	1.040	0.013761	0.01525	1.108
70	0.030589	0.03157	1.032	0.015698	0.01663	1.059

Comparison of Disability Incidence Rates – LASERS

Age	Valuation	Males 1985 GLTD	Ratio	Females 1985 GLTD	Ratio
20	0.0000	0.000800		0.001000	
21	0.0000	0.000800		0.001000	
22	0.0000	0.000800		0.001000	
22	0.0000	0.000800		0.001000	
23	0.0000	0.000818		0.001031	
24	0.0000	0.000836		0.001063	
25	0.0000	0.000854		0.001094	
26	0.0000	0.000872		0.001126	
27	0.0000	0.000890		0.001157	
28	0.0000	0.000922		0.001236	
29	0.0000	0.000954		0.001316	
30	0.0002	0.000986	4.930	0.001395	6.976
31	0.0002	0.001018	5.090	0.001475	7.373
32	0.0003	0.001050	3.500	0.001554	5.180
33	0.0003	0.001114	3.713	0.001706	5.687
34	0.0004	0.001178	2.945	0.001858	4.646
35	0.0005	0.001242	2.484	0.002011	4.021
36	0.0006	0.001306	2.177	0.002163	3.605
37	0.0008	0.001370	1.713	0.002315	2.894
38	0.0010	0.001500	1.500	0.002462	2.462
39	0.0012	0.001630	1.358	0.002609	2.174
40	0.0013	0.001760	1.354	0.002756	2.120
41	0.0014	0.001890	1.350	0.002903	2.074
42	0.0015	0.002020	1.347	0.003050	2.033
43	0.0017	0.002328	1.369	0.003366	1.980
44	0.0020	0.002636	1.318	0.003681	1.841
45	0.0024	0.002944	1.227	0.003997	1.665
46	0.0028	0.003252	1.161	0.004312	1.540
47	0.0032	0.003560	1.113	0.004628	1.446
48	0.0036	0.004172	1.159	0.005159	1.433
49	0.0045	0.004784	1.063	0.005690	1.264
50	0.0054	0.005396	0.999	0.006220	1.152
51	0.0067	0.006008	0.897	0.006751	1.008
52	0.0080	0.006620	0.828	0.007282	0.910
53	0.0067	0.007670	1.145	0.007962	1.188
54	0.0054	0.008720	1.615	0.008642	1.600
55	0.0067	0.009770	1.458	0.009323	1.391
56	0.0092	0.010820	1.176	0.010003	1.087
57	0.0104	0.011870	1.141	0.010683	1.027
58	0.0114	0.012838	1.126	0.011053	0.970
59	0.0104	0.013806	1.328	0.011423	1.098
60	0.0040	0.014774	3.694	0.011792	2.948
61	0.0033	0.015742	4.770	0.012162	3.686
62	0.0025	0.016710	6.684	0.012532	5.013
63	0.0025	0.016710	6.684	0.012532	5.013
64	0.0030	0.016710	5.570	0.012532	4.177

Comparison of Disability Incidence Rates – Teachers

Age	Valuation	Males		Females	
		1985 GLTD	Ratio	1985 GLTD	Ratio
20	0.0000	0.000800		0.001000	
21	0.0000	0.000800		0.001000	
22	0.0000	0.000800		0.001000	
22	0.0000	0.000800		0.001000	
23	0.0000	0.000818		0.001031	
24	0.0000	0.000836		0.001063	
25	0.0000	0.000854		0.001094	
26	0.0000	0.000872		0.001126	
27	0.0000	0.000890		0.001157	
28	0.0000	0.000922		0.001236	
29	0.0000	0.000954		0.001316	
30	0.0003	0.000986	3.287	0.001395	4.651
31	0.0006	0.001018	1.697	0.001475	2.458
32	0.0008	0.001050	1.313	0.001554	1.943
33	0.0016	0.001114	0.696	0.001706	1.066
34	0.0008	0.001178	1.473	0.001858	2.323
35	0.0010	0.001242	1.242	0.002011	2.011
36	0.0013	0.001306	1.005	0.002163	1.664
37	0.0014	0.001370	0.979	0.002315	1.654
38	0.0013	0.001500	1.154	0.002462	1.894
39	0.0011	0.001630	1.482	0.002609	2.372
40	0.0019	0.001760	0.926	0.002756	1.451
41	0.0019	0.001890	0.995	0.002903	1.528
42	0.0022	0.002020	0.918	0.003050	1.386
43	0.0023	0.002328	1.012	0.003366	1.463
44	0.0027	0.002636	0.976	0.003681	1.363
45	0.0025	0.002944	1.178	0.003997	1.599
46	0.0027	0.003252	1.204	0.004312	1.597
47	0.0037	0.003560	0.962	0.004628	1.251
48	0.0036	0.004172	1.159	0.005159	1.433
49	0.0052	0.004784	0.920	0.005690	1.094
50	0.0042	0.005396	1.285	0.006220	1.481
51	0.0049	0.006008	1.226	0.006751	1.378
52	0.0059	0.006620	1.122	0.007282	1.234
53	0.0038	0.007670	2.018	0.007962	2.095
54	0.0056	0.008720	1.557	0.008642	1.543
55	0.0046	0.009770	2.124	0.009323	2.027
56	0.0052	0.010820	2.081	0.010003	1.924
57	0.0063	0.011870	1.884	0.010683	1.696
58	0.0050	0.012838	2.568	0.011053	2.211
59	0.0070	0.013806	1.972	0.011423	1.632
60	0.0081	0.014774	1.824	0.011792	1.456
61	0.0110	0.015742	1.431	0.012162	1.106
62	0.0099	0.016710	1.688	0.012532	1.266
63	0.0084	0.016710	1.989	0.012532	1.492
64	0.0075	0.016710	2.228	0.012532	1.671

Males – Select Period for Post-Disability Death and Recovery
Derived from 1985 GLTD Table

Duration Age	0	1	2	3	4	5	6	7	8	9
20	0.2450	0.2156	0.1960	0.1370	0.1059	0.0796	0.0601	0.0454	0.0342	0.0273
21	0.2450	0.2156	0.1960	0.1370	0.1059	0.0796	0.0601	0.0454	0.0342	0.0273
22	0.2450	0.2156	0.1960	0.1370	0.1059	0.0796	0.0601	0.0454	0.0342	0.0273
23	0.2414	0.2124	0.1931	0.1335	0.1035	0.0783	0.0594	0.0451	0.0344	0.0275
24	0.2378	0.2092	0.1902	0.1299	0.1011	0.0770	0.0586	0.0448	0.0346	0.0278
25	0.2340	0.2059	0.1872	0.1264	0.0986	0.0756	0.0579	0.0446	0.0348	0.0280
26	0.2304	0.2027	0.1843	0.1228	0.0962	0.0743	0.0571	0.0443	0.0350	0.0283
27	0.2268	0.1995	0.1814	0.1193	0.0938	0.0730	0.0564	0.0440	0.0352	0.0285
28	0.2221	0.1955	0.1777	0.1154	0.0907	0.0709	0.0553	0.0436	0.0352	0.0289
29	0.2175	0.1914	0.1740	0.1115	0.0876	0.0689	0.0542	0.0431	0.0352	0.0292
30	0.2128	0.1872	0.1702	0.1077	0.0846	0.0668	0.0531	0.0427	0.0353	0.0296
31	0.2081	0.1832	0.1665	0.1038	0.0815	0.0648	0.0520	0.0422	0.0353	0.0299
32	0.2035	0.1791	0.1628	0.0999	0.0784	0.0627	0.0509	0.0418	0.0353	0.0303
33	0.1983	0.1745	0.1586	0.0962	0.0754	0.0607	0.0498	0.0415	0.0354	0.0308
34	0.1930	0.1698	0.1544	0.0926	0.0724	0.0586	0.0488	0.0412	0.0356	0.0312
35	0.1879	0.1653	0.1503	0.0889	0.0695	0.0566	0.0477	0.0408	0.0357	0.0317
36	0.1826	0.1607	0.1461	0.0853	0.0665	0.0545	0.0467	0.0405	0.0359	0.0321
37	0.1774	0.1561	0.1419	0.0816	0.0635	0.0525	0.0456	0.0402	0.0360	0.0326
38	0.1723	0.1516	0.1378	0.0787	0.0614	0.0512	0.0450	0.0403	0.0365	0.0334
39	0.1671	0.1471	0.1337	0.0759	0.0593	0.0498	0.0444	0.0403	0.0370	0.0341
40	0.1619	0.1425	0.1295	0.0730	0.0571	0.0485	0.0439	0.0404	0.0376	0.0349
41	0.1568	0.1379	0.1254	0.0702	0.0550	0.0471	0.0433	0.0404	0.0381	0.0356
42	0.1516	0.1334	0.1219	0.0673	0.0529	0.0458	0.0427	0.0405	0.0386	0.0364
43	0.1469	0.1293	0.1175	0.0655	0.0520	0.0452	0.0422	0.0402	0.0385	0.0365
44	0.1421	0.1251	0.1137	0.0636	0.0510	0.0446	0.0417	0.0399	0.0384	0.0366
45	0.1375	0.1210	0.1100	0.0618	0.0501	0.0439	0.0412	0.0396	0.0383	0.0367
46	0.1328	0.1168	0.1062	0.0599	0.0491	0.0433	0.0407	0.0393	0.0382	0.0368
47	0.1280	0.1126	0.1024	0.0581	0.0482	0.0427	0.0402	0.0390	0.0381	0.0369
48	0.1239	0.1090	0.0991	0.0572	0.0483	0.0429	0.0403	0.0391	0.0382	0.0370
49	0.1196	0.1053	0.0957	0.0563	0.0483	0.0431	0.0403	0.0392	0.0384	0.0371
50	0.1155	0.1016	0.0924	0.0555	0.0484	0.0433	0.0404	0.0392	0.0385	0.0371
51	0.1113	0.0979	0.0890	0.0546	0.0484	0.0435	0.0404	0.0393	0.0387	0.0372
52	0.1071	0.0943	0.0857	0.0537	0.0485	0.0437	0.0405	0.0394	0.0388	0.0373
53	0.1034	0.0910	0.0827	0.0534	0.0489	0.0443	0.0411	0.0402	0.0400	0.0388
54	0.0996	0.0877	0.0797	0.0531	0.0493	0.0448	0.0417	0.0410	0.0411	0.0403
55	0.0959	0.0844	0.0767	0.0529	0.0497	0.0454	0.0422	0.0417	0.0423	0.0419
56	0.0921	0.0811	0.0737	0.0526	0.0501	0.0459	0.0428	0.0425	0.0434	0.0416
57	0.0884	0.0778	0.0707	0.0523	0.0505	0.0465	0.0434	0.0433	0.0436	0.0417
58	0.0845	0.0744	0.0676	0.0519	0.0502	0.0464	0.0438	0.0436	0.0437	0.0418
59	0.0806	0.0710	0.0645	0.0516	0.0498	0.0462	0.0436	0.0437	0.0438	0.0419
60	0.0768	0.0675	0.0614	0.0512	0.0495	0.0466	0.0437	0.0438	0.0439	0.0420
61	0.0729	0.0641	0.0583	0.0509	0.0496	0.0467	0.0438	0.0439	0.0440	0.0421
62	0.0690	0.0607	0.0552	0.0516	0.0503	0.0470	0.0440	0.0441	0.0442	0.0422
63	0.0690	0.0607	0.0516	0.0516	0.0503	0.0470	0.0440	0.0441	0.0442	0.0422
64	0.0690	0.0607	0.0516	0.0516	0.0503	0.0470	0.0440	0.0441	0.0442	0.0422

Females – Select Period for Post-Disability Death and Recovery
 Derived from 1985 GLTD Table

Duration Age	0	1	2	3	4	5	6	7	8	9
20	0.1670	0.1670	0.1670	0.1056	0.0737	0.0531	0.0391	0.0296	0.0226	0.0182
21	0.1670	0.1670	0.1670	0.1056	0.0737	0.0531	0.0391	0.0296	0.0226	0.0182
22	0.1670	0.1670	0.1670	0.1056	0.0737	0.0531	0.0391	0.0296	0.0226	0.0182
23	0.1645	0.1645	0.1645	0.1029	0.0720	0.0522	0.0386	0.0294	0.0227	0.0184
24	0.1620	0.1620	0.1620	0.1002	0.0703	0.0513	0.0381	0.0292	0.0229	0.0185
25	0.1596	0.1596	0.1596	0.0974	0.0687	0.0505	0.0377	0.0291	0.0230	0.0187
26	0.1571	0.1571	0.1571	0.0947	0.0670	0.0496	0.0372	0.0289	0.0232	0.0188
27	0.1546	0.1546	0.1546	0.0920	0.0653	0.0487	0.0367	0.0287	0.0233	0.0190
28	0.1514	0.1514	0.1514	0.0890	0.0632	0.0473	0.0360	0.0284	0.0233	0.0192
29	0.1482	0.1482	0.1482	0.0860	0.0610	0.0459	0.0353	0.0281	0.0233	0.0195
30	0.1451	0.1451	0.1451	0.0830	0.0589	0.0446	0.0345	0.0279	0.0233	0.0197
31	0.1419	0.1419	0.1419	0.0800	0.0567	0.0432	0.0338	0.0276	0.0233	0.0200
32	0.1387	0.1387	0.1387	0.0770	0.0546	0.0418	0.0331	0.0273	0.0233	0.0202
33	0.1351	0.1351	0.1351	0.0742	0.0525	0.0404	0.0324	0.0271	0.0234	0.0205
34	0.1316	0.1316	0.1316	0.0714	0.0504	0.0391	0.0317	0.0269	0.0235	0.0208
35	0.1280	0.1280	0.1280	0.0685	0.0484	0.0377	0.0310	0.0267	0.0236	0.0211
36	0.1245	0.1245	0.1245	0.0657	0.0463	0.0364	0.0303	0.0265	0.0237	0.0214
37	0.1209	0.1209	0.1209	0.0629	0.0442	0.0350	0.0296	0.0263	0.0238	0.0217
38	0.1174	0.1174	0.1174	0.0607	0.0427	0.0341	0.0292	0.0263	0.0241	0.0222
39	0.1139	0.1139	0.1139	0.0585	0.0412	0.0332	0.0289	0.0263	0.0245	0.0227
40	0.1103	0.1103	0.1103	0.0563	0.0398	0.0323	0.0285	0.0264	0.0248	0.0233
41	0.1068	0.1068	0.1068	0.0541	0.0383	0.0314	0.0282	0.0264	0.0252	0.0238
42	0.1033	0.1033	0.1033	0.0519	0.0368	0.0305	0.0278	0.0264	0.0255	0.0243
43	0.1001	0.1001	0.1001	0.0505	0.0361	0.0301	0.0275	0.0262	0.0254	0.0244
44	0.0969	0.0969	0.0969	0.0491	0.0355	0.0297	0.0271	0.0260	0.0254	0.0244
45	0.0936	0.0936	0.0936	0.0476	0.0348	0.0293	0.0268	0.0259	0.0253	0.0245
46	0.0904	0.0904	0.0904	0.0462	0.0342	0.0289	0.0264	0.0257	0.0253	0.0245
47	0.0872	0.0872	0.0872	0.0448	0.0335	0.0285	0.0261	0.0255	0.0252	0.0246
48	0.0844	0.0844	0.0844	0.0441	0.0336	0.0286	0.0261	0.0255	0.0253	0.0247
49	0.0815	0.0815	0.0815	0.0434	0.0336	0.0287	0.0262	0.0256	0.0254	0.0247
50	0.0787	0.0787	0.0787	0.0428	0.0337	0.0289	0.0262	0.0256	0.0254	0.0248
51	0.0758	0.0758	0.0758	0.0421	0.0337	0.0290	0.0263	0.0257	0.0255	0.0248
52	0.0730	0.0730	0.0730	0.0414	0.0338	0.0291	0.0263	0.0257	0.0256	0.0249
53	0.0704	0.0704	0.0704	0.0412	0.0341	0.0295	0.0267	0.0262	0.0264	0.0259
54	0.0679	0.0679	0.0679	0.0410	0.0343	0.0299	0.0271	0.0267	0.0272	0.0269
55	0.0653	0.0653	0.0653	0.0407	0.0346	0.0302	0.0274	0.0273	0.0279	0.0279
56	0.0628	0.0628	0.0628	0.0405	0.0348	0.0306	0.0278	0.0278	0.0287	0.0166
57	0.0602	0.0602	0.0602	0.0403	0.0351	0.0310	0.0282	0.0283	0.0166	0.0182
58	0.0576	0.0576	0.0576	0.0400	0.0349	0.0309	0.0285	0.0166	0.0182	0.0200
59	0.0549	0.0549	0.0549	0.0397	0.0347	0.0308	0.0166	0.0182	0.0200	0.0222
60	0.0523	0.0523	0.0523	0.0395	0.0344	0.0166	0.0182	0.0200	0.0222	0.0247
61	0.0496	0.0496	0.0496	0.0392	0.0166	0.0182	0.0200	0.0222	0.0247	0.0275
62	0.0470	0.0470	0.0470	0.0166	0.0182	0.0200	0.0222	0.0247	0.0275	0.0309
63	0.0552	0.0552	0.0166	0.0182	0.0200	0.0222	0.0247	0.0275	0.0309	0.0347
64	0.0552	0.0166	0.0182	0.0200	0.0222	0.0247	0.0275	0.0309	0.0347	0.0391

Comparison of Post-Disability Death and Recovery Rates

	Valuation	Ultimate Rates Derived From 1985 GLTD Table		Ratio	
		Male	Female	Male	Female
20	0.024712	0.0137	0.0204	0.5544	0.8255
21	0.026001	0.0138	0.0205	0.5307	0.7884
22	0.027291	0.0138	0.0206	0.5057	0.7548
23	0.028581	0.0139	0.0207	0.4863	0.7243
24	0.029871	0.0139	0.0207	0.4653	0.6930
25	0.031162	0.0140	0.0208	0.4493	0.6675
26	0.032451	0.0140	0.0210	0.4314	0.6471
27	0.033741	0.0141	0.0211	0.4179	0.6254
28	0.035032	0.0141	0.0212	0.4025	0.6052
29	0.036321	0.0142	0.0213	0.3910	0.5864
30	0.037611	0.0144	0.0214	0.3829	0.5690
31	0.038901	0.0145	0.0216	0.3727	0.5553
32	0.040191	0.0146	0.0218	0.3633	0.5424
33	0.041481	0.0147	0.0220	0.3544	0.5304
34	0.042772	0.0149	0.0221	0.3484	0.5167
35	0.044061	0.0150	0.0224	0.3404	0.5084
36	0.044075	0.0151	0.0226	0.3426	0.5128
37	0.044084	0.0153	0.0229	0.3471	0.5195
38	0.044093	0.0156	0.0232	0.3538	0.5262
39	0.044105	0.0158	0.0235	0.3582	0.5328
40	0.044124	0.0160	0.0239	0.3626	0.5417
41	0.044144	0.0163	0.0243	0.3692	0.5505
42	0.044156	0.0166	0.0248	0.3759	0.5617
43	0.044275	0.0169	0.0252	0.3817	0.5692
44	0.044496	0.0173	0.0257	0.3888	0.5776
45	0.044481	0.0176	0.0263	0.3928	0.5869
46	0.045253	0.0180	0.0269	0.3978	0.5944
47	0.045814	0.0185	0.0275	0.4038	0.6002
48	0.046553	0.0190	0.0284	0.4081	0.6101
49	0.047483	0.0195	0.0292	0.4107	0.6150
50	0.048639	0.0202	0.0301	0.4153	0.6189
51	0.050081	0.0206	0.0308	0.4113	0.6150
52	0.051777	0.0211	0.0315	0.4075	0.6084
53	0.053839	0.0214	0.0320	0.3975	0.5944
54	0.056143	0.0215	0.0321	0.3829	0.5717
55	0.059224	0.0217	0.0324	0.3664	0.5471
56	0.061379	0.0219	0.0327	0.3568	0.5328
57	0.0641	0.0221	0.0329	0.3448	0.5133
58	0.06692	0.0222	0.0332	0.3317	0.4961
59	0.0697	0.0225	0.0337	0.3228	0.4835
60	0.072535	0.0228	0.0339	0.3143	0.4674
61	0.07536	0.0230	0.0344	0.3052	0.4565
62	0.078127	0.0232	0.0347	0.2970	0.4441
63	0.08095	0.0239	0.0357	0.2952	0.4410

Disability Benefit Survey

Milliman & Robertson was asked to review available studies of in-service disability benefits of both private employers and state and local governments. We reviewed Employee Benefits in Medium and Large Private Establishment, 1993 published in November 1994 by the U.S. Department of Labor and Employee Benefits in State and Local Governments, 1992 published in July 1994 by the U.S. Department of Labor. The following is a discussion of these surveys.

Forty-one percent of full-time employees of medium and large private establishments ('private employees') covered in these surveys have long term disability insurance coverage. When employee contributions are required, it generally is due to the fact that they are in a cafeteria plan. Twenty-eight percent of full-time employees of local and state governments ('government employees') covered in these surveys have long term disability coverage with twenty percent of these employees required to contribute to at least part of the cost. Table B8 documents this information.

Table B9 documents the service requirement for eligibility of long term disability insurance benefits in 1993 for private employees and participant coverage in 1992 for government employees. In each instance, approximately forty percent of the participants were in plans with no service requirement, but approximately another eighteen percent were in plans requiring one year or more of service to participate.

Table B10 documents the waiting period before long term disability benefits commence. The waiting period for more than half of the private employees is six months which is also the waiting period for Social Security benefits. The waiting for government employees tends to be shorter than the waiting period for private employees.

By far the most common long term disability benefit offered is based on a fixed percent of predisability earnings. Table B11 documents the different benefit amounts being offered. For those private employees covered by a Long term disability plan, sixty-five percent are covered by a plan offering sixty to sixty-nine percent of pay while sixty-eight percent of those government employees covered by a Long term disability plan are covered by plans offering sixty to sixty-nine percent of pay.

Table B12 documents ancillary benefits provided in connection with long term disability benefits.

In defined benefit pension plans, disability benefits for government employees were provided to ninety-four percent of plan participants with ninety-five percent of those participants receiving immediate benefits. In contrast to Long term disability plans where the average service requirement is six months, the service requirement in pension plans for disability benefits is often five to ten years. In those instances when a Long term Disability plan is offered (which usually