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# Maine State Retirement System Annual Report for the Fiscal Year Ended June 30, 1997

Maine State Retirement System

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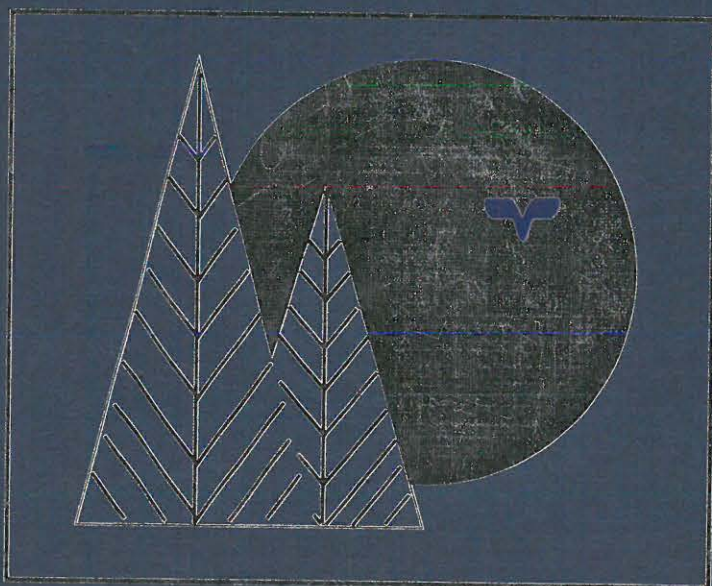
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# Maine State Retirement System

## Annual Report

*For the Fiscal Year Ending June 30, 1997*

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Maine  
State  
Retirement  
System

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JUN 04 1998



This report has been produced as required by 5 MRSA 17102 (10), which states that the Maine State Retirement System must publish an annual report showing "the fiscal transactions of the retirement system for the fiscal year and the assets and liabilities of the retirement system at the end of the fiscal year; and [t]he actuary's report on the actuarial valuation of the financial condition of the retirement system for the fiscal year."

**Maine State Retirement System (MSRS)**

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Costs for producing this report were paid from the Administrative Fund of the Maine State Retirement System.



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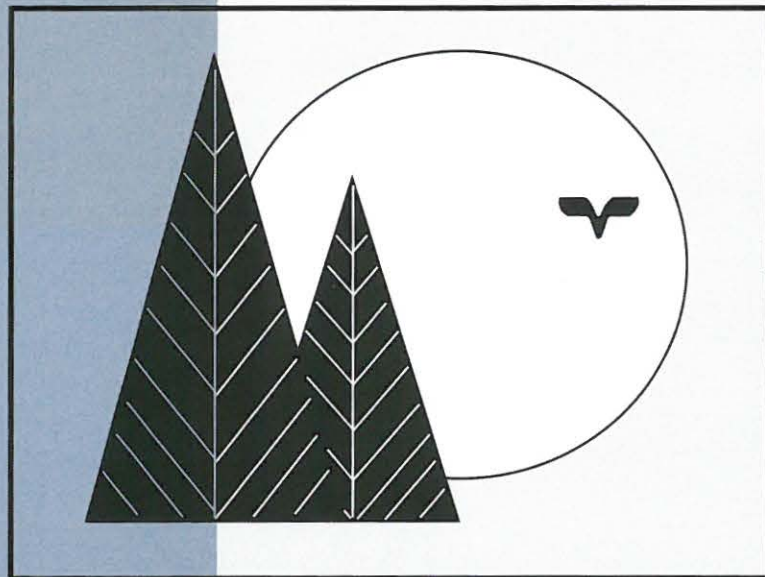
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EXECUTIVE DIRECTOR'S REPORT  
and  
1997 LEGISLATIVE SUMMARY











## EXECUTIVE DIRECTOR'S REPORT

Several weeks ago, the combined annual reports for fiscal years 1995 and 1996 arrived from the printer. They were distributed in time to make room for the printer's delivery of this Annual Report for fiscal year 1997. Its production within several months of the end of the fiscal year that it covers is to be taken as a signal that the Retirement System will henceforth be producing timely annual reports. This 1997 report is another kind of signal event also: it is the last of its kind in style and format. The 1998 annual report and its successors will look quite different.

At the end of fiscal year 1997 the Retirement System's Executive Director of eleven years, Claude Perrier, announced his resignation. With his departure, the System's Board of Trustees had to assess the System's strengths and weaknesses, its achievements and its works-in-progress and, in choosing the successor executive director, set the System's focus for the next several years. It is my view that, all other things being equal, the decision to choose a person from "inside", already familiar with the territory, was the best choice for the System at this time in its life.

Sometimes an organization needs to be stood on its head, so to speak, by the leadership of someone entirely new whose mandate is to change things. But that mandate has been standard operating procedure at the Retirement System for the last few years. Chief Deputy Gail Drake Wright and I, who have been at the System for five and a half and six and a half years respectively, take from the Board's decision to entrust the leadership of the System to us the message that we are to keep on keeping on with the works-in-progress. During the years that we have worked here, evolutionary change has been so constant and so rapid that, looking back from now to then, it almost looks like revolution. Many changes have been apparent to the System's members, employers and retirees, and many more have been apparent to the System's staff, who have lived through all of them and been deeply involved in making many of the most fundamental changes.

And, it is far from over. The Trustees of the System want to be overseeing, within a few years, a Maine State Retirement System whose service programs and internal operations are as well thought out, as wisely designed and as effectively operated in the interests of its members, employers and retirees as is its investment program. The Retirement System staff and I understand the goal we're marching to and the very large challenges along the way. We intend to get to the goal, and to not miss a beat in doing the System's ongoing business while we are en route.

*Kay R. H. Evans*  
*Executive Director*

### 1997 Highlights in Brief

**Investment Returns.** At June 30, 1997, the System's investment return for the one-year period ending on that date was 18.8%. Returns for the three and five year periods ending on that date were 17.6% and 14.1% respectively. Total invested assets at that date were \$5.2 billion.

**Funded Status.** The System's accrued benefit funded status continued to improve, rising to 82.6% from 71% in 1996. On an actuarial liability basis, the System's funded status has also improved, but is still far from adequately sound. The Board continues to manage the plans' actuarial assumptions and funding approach to achieve greater soundness. The 1995 amendment to the Maine Constitution and recent legislative actions making additional payments against the unfunded actuarial liability demonstrate that the Board's concerns are shared and that there is solid support for its attention to funding.

**Constitutional Amendment.** The legal and policy implications and effects of the 1995 Constitutional amendment continue to require discussion and analysis. The Board, with its actuary and staff, has paid particular attention to the issue of maintaining a stable employer contribution rate, developing an additional "smoothing" methodology to address the volatility that potentially could arise from the Constitutionally-required 10-year amortization of experience losses.

**Federal Court Litigation.** The First Circuit Court of Appeals overturned the Federal District Court in the Parker v. Wakelin case, holding constitutional the amendments to Retirement System statutes made by the Legislature in 1993. The First Circuit subsequently denied the plaintiffs' request for rehearing and plaintiffs thereafter filed a request for hearing in the United States Supreme Court. Major issues of funding and plan administration turn on the final outcome of this case and its companion, Dzialo v. Perrier, as do questions of other approaches to address the effects of the 1993 amendments and terms of the Circuit Court's decision.

**System Automation.** As we will continue to say for several more years, progress continues to be made on the automation of the System's data collection, data storage and data utilizing processes. It is important to understand that while accomplishment of the entire automation effort is several years away, improvements and benefits have been and will continue to be realized during its course. It is also important to underscore that the number of years that it will take to reach final accomplishment will be increased by legislated or court-imposed changes in the System's retirement plans and their implementation. For its part, the System will continue to unravel complexities resulting from its own accretions of policy and procedure, which it must do if automation is to have its maximum benefits of efficiency and accuracy.





## EXECUTIVE DIRECTOR'S REPORT (continued)

Maintenance of System Programs. The simultaneous demands of our automation efforts and of the need to be prepared to meet potential compliance requirements of Parker v. Wakelin and Dzialo v. Perrier greatly stressed the System's ability to maintain its recent, highly valued service improvements, notably the three-week average turnaround time for responses to members' requests for information and calculations. A major and absolute reality in being committed on all three of these fronts is the fact that none of the battles can be fought, much less won, by new or inexperienced staff. All require the abilities and knowledge of experienced System staff, as do the training and development of less experienced and new staff.

Finance and Accounting. The System's external audits continue to document its progress toward installation of "best practices" systems, policies and procedures for carrying out its responsibilities as a financial institution. The dramatic changeover in financial management - the term "transition" does not capture the extent, depth and rapidity of the change - has not been simple or easy. It requires disciplined attention to both large concepts and small details, mandates the replacement of hard-learned staff practices with new, more exacting approaches and expectations, and has necessitated painful staffing decisions.

Consolidated Plan for Participating Local Districts. While it has its issues and complexities, the Consolidated Plan for participating local districts (PLDs) is a great improvement for PLDs, PLD members and the System over the prior reality of 264 separate PLD retirement plans. PLDs continue to adopt the largely supplemental Section 457 and Section 401(a) plans sponsored by the System and administered by State Street Bank and Trust. The State of Maine's recent selection of State Street as a new provider under its Section 457 plan for state employees is an opportunity for economies and coordination for all parties, because the State has selected a plan having the same investment vehicles and the same plan administration and recordkeeping structure as the Retirement System's PLD plan.





## **1997 LEGISLATIVE SUMMARY**

### **An Act to Continue the Participating Local District Consolidated Plan Advisory Committee PL 1997, Chapter 12**

This law reinstates the provisions establishing the Participating Local District Advisory Committee which were inadvertently allowed to lapse in 1996. The PLD Advisory Committee is made up of members who represent PLD employers and employees. The Committee, in conjunction with the MSRS Board, is responsible for the design of the consolidated retirement plan, including amendments to the plan.

### **An Act to Include in the Legislative and Judicial Retirement Systems the Same Provisions for Post-retirement Divorce That Are in the Maine State Retirement System PL 1997, Chapter 55**

The law governing the Maine State Retirement System includes provisions that enable retirees and their spouses who divorce after retirement to agree to change the retiree's retirement beneficiary. A change can be made only if the former spouse is in agreement. Prior to the agreement, the former spouse must be counseled by System staff as to the financial effect of giving up beneficiary status and rights. The MSRS provisions were amended in the prior legislative sessions and this law enacts parallel amendments to the laws governing the Maine Legislative Retirement System and the Maine Judicial Retirement System.

### **An Act to Permit Teachers to Transfer Retirement System Creditable Service Earned as a Teacher's Aide while Employed by a School and Covered by a Participating Local District PL 1997, Chapter 161**

This law provides that a member who is a teacher who was previously employed by a school administrative unit in Maine as a teacher's aide or Education Technician I may purchase service credit for the time so employed. In order to make the purchase members must pay into the Members' Contribution Fund an amount with interest that is the actuarial equivalent of the portion of the retirement benefit at their retirement which is based on the additional creditable service. The service credit purchased may only be used to increase the amount of the member's service retirement benefit. If the member's time as a Teacher's Aide or Educational Technician I was served as a member under a Participating Local District Plan, the election to purchase service credit for that time to be used under the teacher plan is irrevocable as of the date any payment is made and the service credit is no longer available to the member under the participating local district plan whether or not the member completes the purchase payments. A special provision governs purchases when a member has been employed as a Teacher's Aide or Educational Technician I in a Participating Local District and also has been employed as a Teacher's Aide or Educational Technician I by a school administrative unit that is not a Participating Local District.

### **An Act to Further Facilitate the Purchase of Service Credit in the Maine State Retirement System PL 1997, Chapter 190**

This law allows state employee members of the Maine State Retirement System to purchase service credit for the period during which the member took an unpaid or partially paid educational leave pursuant to the Maine Educational Leave Act. In order to make the purchase a member must pay into the Members' Contribution Fund an amount with interest that is the actuarial equivalent at retirement of the portion of the retirement benefit which is based on the additional service credit purchased. The service credit purchased may only be used to increase the amount of the member's service retirement benefit.





## **1997 LEGISLATIVE SUMMARY**

### **(continued)**

#### **An Act to Exclude Coaches from Participation in the Maine State Retirement System PL 1997, Chapter 355**

This law amends the definition of "teacher" to specifically exclude coaches employed by a public school from membership in the Maine State Retirement System unless the coach is also employed in a capacity otherwise covered by the definition of a teacher.

#### **An Act to Amend the Provisions of the Disability Retirement Laws Administered by the MSRS PL 1997, Chapter 384**

This law clarifies and makes consistent various disability retirement provisions of current law. The law also reenacts language that, for the reason of clarity, should not have been deleted by amendments enacted by Public Law 1992, Chapter 887. (Chapter 887 established the "no-age" disability provisions and the related procedure and requirements.)

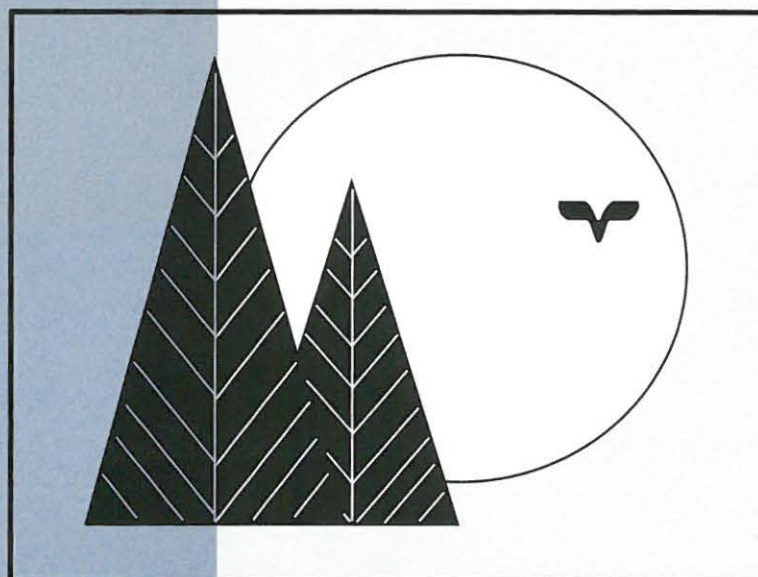
#### **An Act to Amend the Retirement System Law as it Pertains to Qualified Survivors PL 1997, Chapter 396**

The law governing payment of retirement benefits to survivors of State Police Officers, Inland Fisheries and Wildlife Officers and Marine Resources Officers, who retired under the special plan option of the now-closed 20-year special plan includes a statutory definition of "surviving spouse." The law did not allow the System to implement a qualified domestic relations order that affected the rights of the "surviving spouse" to benefits. This amendment provides that the benefits otherwise payable to the "surviving spouse" may be paid in whole or in part to another person or persons under a qualified domestic relations order. The new law applies to cases in which the retiree is still alive and the issue of survivorship has not yet arisen.

#### **An Act to Provide Retirement Benefit Options for Fire Marshals and Motor Vehicle Inspectors PL 1997, Chapter 401**

This law provides state fire marshals, state fire marshal investigators, state fire marshal inspectors, and motor vehicle inspectors with the option of qualifying for a service retirement benefit upon reaching 55 years of age after completing at least 25 years of service. Eligible persons first employed after October 1, 1997 who elect this option will pay to the retirement system an increased employee payroll contribution in an amount that equals the full actuarial cost of electing this option. Persons first employed in either of these capacities prior to October 1, 1997 who elect this option and who wish to purchase all or any portion of their service prior to October 1, 1997 must pay the full actuarial cost of that service as well as an increased employee contribution for service after October 1, 1997. The decision to participate in the regular plan or the "25/55" plan is a one-time, irrevocable decision that must be made within 90 days of hire by newly hired employees or by January 1, 1998 by current employees.

# OVERVIEW OF THE MAINE STATE RETIREMENT SYSTEM



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## INTRODUCTION

By the authority granted to it by the Maine State Legislature, the Maine State Retirement System (MSRS) administers retirement plans that cover State employees, the state's public school teachers, the state's judges and the state's legislators, and plans covering the employees of the approximately 250 municipalities and other public entities that have chosen to provide retirement plans through the MSRS. The MSRS is also responsible for the payment of benefits from the Governor's Retirement Fund to former governors and their surviving spouses.

In addition, the MSRS is also responsible for administering the Group Life Insurance Program. This program provides life insurance benefits for both active and retired State employees, public school teachers, many PLD employees, and members and retirees of the Legislative and Judicial Retirement Systems.

## RETIREMENT PROGRAM

Membership in the MSRS for Fiscal Years 1997 and 1996 is outlined below. The membership includes both active and inactive members. Active members are those who are currently working for an MSRS participating employer and who are, therefore, contributing to the MSRS. Inactive members are those who have contributed in the past and whose contributions remain with the System but who are not contributing presently because they are not working for an MSRS participating employer.

|             | <u>1997</u> |          |         | <u>1996</u> |          |         |
|-------------|-------------|----------|---------|-------------|----------|---------|
| Members     | Active      | Inactive | Total   | Active      | Inactive | Total   |
| State*      | 13,795      | 13,393   | 27,188  | 13,779      | 13,445   | 27,224  |
| Teachers    | 25,554      | 33,389   | 58,943  | 24,709      | 32,710   | 57,419  |
| PLD*        | 9,037       | 7,135    | 16,172  | 8,890       | 7,135    | 16,025  |
| Legislative | 167         | 76       | 243     | 153         | 57       | 210     |
| Judicial    | 52          | 2        | 54      | 50          | 2        | 52      |
| Total       | 48,605      | 53,995   | 102,600 | 47,581      | 53,349   | 100,930 |

\*This includes both regular and special plan members.

Recipients of MSRS benefits fall into five categories:

- *Service Retirees* - those who are receiving a service (or "regular") retirement benefit.
- *Retiree Beneficiaries* - those who are the beneficiaries of deceased service retirees and those who share in the benefit of a living service retiree.
- *Disability Retirees* - those who are receiving a disability retirement benefit.
- *Ordinary Death Beneficiaries* - those who are the beneficiary of an active or inactive member or disability retiree who died before being qualified to receive or, if qualified, before receiving, a service retirement benefit.
- *Accidental Death Beneficiaries* - those who are the beneficiary either of a deceased active member or of a disability retiree who died as a result of an injury arising out of and in the course of employment.





Below are the total benefit recipients and total benefit dollars at June 30, 1997 and June 30, 1996:

### BENEFITS PAYROLL

|                                 | 1997<br>Benefit<br>Recipients | 1997<br>Benefit<br>Dollars | 1996<br>Benefit<br>Recipients | 1996<br>Benefit<br>Dollars |
|---------------------------------|-------------------------------|----------------------------|-------------------------------|----------------------------|
| Service Retirees                | 21,770                        | 19,710,424                 | 21,549                        | 18,829,290                 |
| Retiree Beneficiaries           | 2,871                         | 1,834,865                  | 2,816                         | 1,703,296                  |
| Disability Retirees             | 1,645                         | 2,003,328                  | 1,530                         | 1,828,887                  |
| Ord./Accdn. Death Beneficiaries | 1,023                         | 368,268                    | 1,026                         | 344,356                    |
| Total                           | 27,309                        | 23,916,885                 | 26,921                        | 22,705,829                 |

### GROUP LIFE INSURANCE PROGRAM

The Group Life Insurance Program is available to all State employees, public school teachers, and the employees of those PLDs that elect to provide the coverage for their employees, as well as members of the Legislative and Judicial Retirement Systems. In addition to basic coverage for the employee (which is equal to one times the participant's annual base compensation rounded up to the next highest \$1,000), supplemental coverage for the employee and coverage for dependents is also available to the Program's participants.

### BOARD OF TRUSTEES

The responsibility for the operation of the Maine State Retirement System, including all the various retirement programs and the Group Life Insurance Program, is held by the MSRS Board of Trustees, which is composed of eight members. State law specifies the Board's composition. The State Treasurer fills the one non-voting position. The seven voting positions include three positions that are to be filled by MSRS members. One of these three is to be a teacher member elected by the Maine Education Association; the second is to be a State employee elected by the Maine State Employees' Association; the third is to be a PLD member appointed by the governing body of the Maine Municipal Association. The remaining four voting Board members are all appointed by the Governor. Two of them are to have training or experience in investments, accounting, banking, or insurance, or as actuaries; one is to be chosen from a list of nominees submitted by the Maine Retired Teachers' Association; and one is to be an MSRS retiree, chosen from nominees of State and PLD retirees.

The Board members as of June 30, 1997 were:

|                                 |  |
|---------------------------------|--|
| David S. Wakelin, Chair         | Governor's Appointment (specified qualification) |
| John H. Kimball, Vice Chair     | Maine Education Association                      |
| Peter M. Leslie                 | Governor's Appointment (specified qualification) |
| George A. Burgoyne              | Maine State Employees' Association               |
| Eunice Cotton                   | Governor's Appointment (State Retiree)           |
| Charles M. Jackson              | Maine Municipal Association                      |
| Grover B. MacLaughlin           | Governor's Appointment (MRTA)                    |
| Dale McCormick, State Treasurer | Ex-officio Member                                |

The Board contracts for the services of an actuary, which is currently the firm of Milliman and Robertson. The actuary prepares annual valuations of the assets and liabilities of each of the retirement programs administered by the Board. The actuary also provides information and recommendations as to sound and appropriate actuarial assumptions, which are utilized, together with valuation information, to determine the plans' funding requirements.





The Board's management of MSRS investments is governed by its detailed investment policy, which states the Board's underlying investment philosophy and goals and establishes guidelines and criteria for choice of investment types, asset allocation among investment types, investment manager selection and evaluation, and allotment of investment funds to investment managers. The Board currently employs the firm of Ennis and Knupp to assist in the development and implementation of the investment policy.

The Board is the final administrative decision-maker in matters involving the rights, credits, and benefits of members. It has established an administrative appeals process for making of such decisions, through which the relevant factual information and legal requirements are identified and analyzed. In decisions on disability retirement appeals, statutorily established medical boards and individual medical advisors provide recommendations as to the medical aspects of disability. The Board's final administrative decisions are appealable to Superior Court.

## ADMINISTRATION

The Maine State Retirement System is a service organization with significant financial and investment management and recordkeeping responsibilities. The Board of Trustees appoints the Executive Director of the MSRS. The work of the System is managed through the Office of the Executive Director and four divisions:

- **Office of the Executive Director** Investments and actuarial work are managed through the Executive Director. In addition, the day-to-day administration, legislative matters, appeals, federal, state and local relations, planning, special projects and similar work is managed through the office of the Executive Director.
- **Basic Services** This division is responsible for service retirement and disability retirement programs as well as death benefit and group life insurance benefit programs. The division is the System's primary liaison with members, employers and retirees.
- **Accounting & Finance** This division has primary responsibility for the MSRS's accounting and financial management systems.
- **Information Systems** This division is responsible for the MSRS data systems and data processing.
- **Human Resources** This division is responsible for the System's internal personnel and payroll and labor relations matters.



**STATISTICAL DATA SUMMARY  
FOR FISCAL YEARS 1993 TO 1997****EMPLOYEE AND EMPLOYER CONTRIBUTIONS**

| <u>Fiscal Year<br/>ending June 30</u> | <u>Employee*</u> | <u>Employer*</u> |
|---------------------------------------|------------------|------------------|
| 1997                                  | \$ 100,683,010   | \$ 266,453,877   |
| 1996                                  | 97,141,014       | 252,229,179      |
| 1995                                  | 101,863,132      | 242,627,047      |
| 1994                                  | 89,134,364       | 190,180,426      |
| 1993                                  | 78,481,972       | 232,135,989      |

**NUMBERS OF BENEFITS RECIPIENTS**

| <u>Fiscal Year<br/>ending June 30</u> | <u>Total</u> |
|---------------------------------------|--------------|
| 1997                                  | 27,309       |
| 1996                                  | 26,921       |
| 1995                                  | 26,310       |
| 1994                                  | 25,810       |
| 1993                                  | 25,127       |

**BENEFITS PAYMENTS**

| <u>Fiscal Year<br/>ending June 30</u> | <u>Benefits<br/>Payments*</u> |
|---------------------------------------|-------------------------------|
| 1997                                  | \$ 284,139,339                |
| 1996                                  | 277,030,590                   |
| 1995                                  | 265,421,392                   |
| 1994                                  | 234,911,910                   |
| 1993                                  | 219,001,480                   |

\*Does not include the Group Life Insurance Program. See page 13 for the Group Life Insurance Program information.



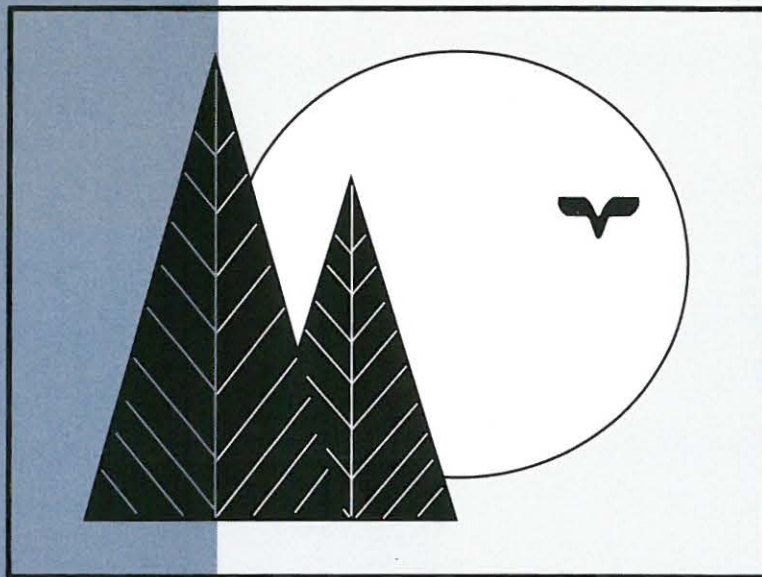
**GROUP LIFE INSURANCE PROGRAM  
STATEMENT OF OPERATIONS  
FOR THE FISCAL YEARS ENDING JUNE 30, 1997 AND JUNE 30, 1996**

| <u>RECEIPTS</u>            | <u>1997</u>          | <u>1996</u>         |
|----------------------------|----------------------|---------------------|
| Premiums Collected         |                      |                     |
| Employee Paid              | \$ 4,696,265         | \$ 4,558,298        |
| Employer Paid              | 1,402,781            | 1,417,617           |
| Total Premiums Collected   | \$ 6,099,046         | \$ 5,975,915        |
| Earnings on Investments    | 1,744,792            | 1,651,604           |
| <u>TOTAL RECEIPTS</u>      | <u>\$ 7,843,838</u>  | <u>\$ 7,627,519</u> |
| <u>EXPENSES</u>            |                      |                     |
| Claims Paid                |                      |                     |
| Basic                      | \$ 1,640,441         | \$ 2,584,916        |
| Supplemental               | 1,310,204            | 2,212,421           |
| Dependent                  | 182,759              | 378,000             |
| Retired Employees          | 2,511,759            | 2,824,321           |
| Total Claims Paid          | \$ 5,645,163         | \$ 7,996,658        |
| Retention                  | \$ 426,432           | \$ 501,314          |
| <u>TOTAL EXPENSES</u>      | <u>\$ 6,071,595</u>  | <u>\$ 8,497,972</u> |
| <u>BALANCE OF RESERVES</u> | <u>\$ 28,778,622</u> | <u>\$26,990,408</u> |





# MSRS FINANCIAL STATEMENTS



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**REPORT OF INDEPENDENT ACCOUNTANTS**

Board of Trustees of  
The Maine State Retirement System:

We have audited the accompanying statements of plan net assets of the Maine State Retirement System, which is a component unit of the State of Maine, as of June 30, 1997 and 1996, and the related statements of changes in plan net assets for the years then ended, and the required supplementary information. These financial statements and supplementary information are the responsibility of the System's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards and *Government Auditing Standards*, issued by the Comptroller General of the United States. These standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements and required supplementary information referred to above present fairly, in all material respects, the financial position of the Maine State Retirement System as of June 30, 1997 and 1996, and changes in plan net assets for the years then ended, in conformity with generally accepted accounting principles.

In accordance with *Government Auditing Standards*, we have also issued our report dated November 14, 1997, on compliance and on internal control over financial reporting based on an audit of financial statements performed in accordance with *Government Auditing Standards*.

As discussed in Note 2 to the financial statements, effective July 1, 1996, the Maine State Retirement System adopted the provisions of Statement No. 25 of the Government Accounting Standards Board, Financial Reporting for Defined Benefit Plans and Note Disclosures for Defined Contribution Plans.

Portland, Maine  
November 14, 1997

Coopers & Lybrand L.L.P.





**MAINE STATE RETIREMENT SYSTEM  
STATEMENT OF PLAN NET ASSETS  
June 30, 1997 and 1996**

| <u>ASSETS</u>   | <u>1997</u>             | <u>1996</u>             |
|---|-------------------------|-------------------------|
| Cash and cash equivalents (Note 3)  | \$ 263,692,712          | \$ 114,887,011          |
| Investments at fair value (Note 3):   |                         |                         |
| Debt securities:  |                         |                         |
| U.S. government   | 153,652,899             | 92,776,457              |
| Corporate   | 27,691,472              | 30,427,320              |
| Common equity securities  | 1,368,102,829           | 1,228,703,510           |
| Common/collective trusts  | 3,367,483,487           | 2,843,628,526           |
| Real estate   | 21,690                  | 14,772,169              |
| Limited partnerships  | 712,886                 | 921,814                 |
| Other   | 9,394,653               | 5,261,682               |
|   | <u>4,927,059,916</u>    | <u>4,216,491,478</u>    |
| Receivables:  |                         |                         |
| State and local agency contributions  | 10,264,595              | 9,884,389               |
| Due from brokers for securities sold  | 5,247,177               | 16,733,457              |
| Accrued interest and dividends  | 6,139,814               | 4,158,585               |
| Other (Note 4)  | 14,920,825              | 7,815,806               |
| Total receivables   | <u>36,572,411</u>       | <u>38,592,237</u>       |
| Fixed assets, net of accumulated depreciation   | <u>2,763,034</u>        | <u>2,668,956</u>        |
| Total assets  | <u>5,230,088,073</u>    | <u>4,327,639,682</u>    |
| <br><u>LIABILITIES</u>  |                         |                         |
| Accounts Payable  | 8,077,233               | 8,406,857               |
| Due to brokers for securities purchased   | 3,991,897               | 22,899,675              |
| Other liabilities   | 3,822,107               | 4,508,598               |
| Total Liabilities   | <u>15,891,237</u>       | <u>35,815,130</u>       |
| Net assets held in trust for pension benefits (a schedule of<br>funding progress is presented on page 26) | <u>\$ 5,214,196,836</u> | <u>\$ 4,336,824,552</u> |

The accompanying notes are an integral  
part of the financial statements



# **MAINE STATE RETIREMENT SYSTEM** **STATEMENT OF CHANGES IN PLAN NET ASSETS**

**For the years ended June 30, 1997 and 1996**

|   | <u>1997</u>             | <u>1996</u>             |
|---|-------------------------|-------------------------|
| Additions:  |                         |                         |
| Investment income:  |                         |                         |
| Interest  | \$ 47,117,503           | 23,411,161              |
| Dividends   | 18,409,597              | 49,880,582              |
| Other   | 9,383,740               | 7,561,471               |
| Net appreciation in the fair value<br>of plan investments | <u>753,102,512</u>      | <u>539,073,181</u>      |
| Less investment expenses                                  | <u>(10,743,856)</u>     | <u>(8,846,210)</u>      |
| Net investment income                                     | <u>817,269,496</u>      | <u>611,080,185</u>      |
| Contributions (Note 4):                                   |                         |                         |
| Members   | 105,379,275             | 103,116,929             |
| State and local agencies                                  | <u>267,853,658</u>      | <u>253,646,796</u>      |
| Total contributions                                       | <u>373,232,933</u>      | <u>356,763,725</u>      |
| Total additions   | <u>1,190,502,429</u>    | <u>967,843,910</u>      |
| Deductions:   |                         |                         |
| Benefits paid   | 290,210,934             | 285,528,562             |
| Refunds and withdrawals                                   | 15,716,827              | 15,150,388              |
| Administrative expenses                                   | <u>7,202,384</u>        | <u>6,240,250</u>        |
| Total deductions  | <u>313,130,145</u>      | <u>306,919,200</u>      |
| Net increase  | 877,372,284             | 660,924,710             |
| Net assets held in trust for pension benefits:            |                         |                         |
| Beginning of year   | <u>4,336,824,552</u>    | <u>3,675,899,842</u>    |
| End of year   | <u>\$ 5,214,196,836</u> | <u>\$ 4,336,824,552</u> |

**The accompanying notes are an integral  
part of the financial statements**





## MAINE STATE RETIREMENT SYSTEM NOTES TO FINANCIAL STATEMENTS

### 1. Plan Description:

#### General

The Maine State Retirement System (System), which is a component unit of the State of Maine, is the administrator of an agent multiple-employer public employee retirement system established and administered under the Maine State Retirement System Laws of the State of Maine. The System provides pension, death and disability benefits to its members, which include employees of the State, public school employees who are defined by Maine law as teachers for whom the State is the employer for retirement contribution purposes, and employees of approximately 250 local municipalities and other public entities in Maine, each of which contracts for participation in the System under provisions of the relevant statutes. At June 30, 1997 and 1996, the approximate membership consisted of:

|                                      | 1997   | 1996   |
|--------------------------------------|--------|--------|
| Active vested and non-vested members | 48,551 | 47,494 |
| Terminated vested participants       | 1,821  | 1,989  |
| Retirees and benefit recipients      | 27,186 | 27,031 |
| Total                                | 77,558 | 76,514 |

The System's retirement programs provide defined retirement benefits based on members' average final compensation and creditable service. Vesting occurs upon the earning of ten year's service credit or the earning of one year's service credit immediately preceding retirement at or after normal retirement age. Normal retirement age is age 60 or 62, determined by whether a member had at least 10 years of creditable service on June 30, 1993, and the monthly benefit is reduced by a statutorily prescribed factor for each year of age that a member is below her/his normal retirement age at retirement. The System also provides death and disability benefits, which are established by statute for State and public school employees, and by contract with other participating employers under applicable statutory provisions.

Upon termination of membership, members' accumulated employee contributions are refundable with interest, credited for a five year period for non-vested members and through the date of refund for vested members. Withdrawal of accumulated contributions results in forfeiture of all benefits. The annual rate of interest credited to members' accounts is set by the System's Board of Trustees and is currently 6.5%.

In the event that a participating entity withdraws from the System, its individual employee-members can terminate membership or remain contributing members. The participating entity remains liable for contributions sufficient to fund benefits for its already retired former employee-members, for its terminated vested inactive members, and for those active employees, whether or not vested, who remain contributing System members.

Retirement benefits are funded by contributions from members and employers and earnings from investments. Disability and death benefits are funded by employer contributions and investment earnings. Member and employer contributions are a percentage of applicable member compensation. Member contribution rates are defined by law and depend on the terms of the plan under which a member is covered. Employer contribution rates are determined by annual actuarial valuations.





## NOTES TO FINANCIAL STATEMENTS (continued)

### 1. Plan Description: (continued)

The total funds managed by the system are constitutionally restricted as held in trust for the payment of pension and related benefits to its participants. The System's Board of Trustees, in its fiduciary capacity, establishes the System's investment policies and their overall implementation. The System maintains separate reserves and accounts for each participating entity and performs separate actuarial valuations for each participating entity's respective plan. Because there is no legal requirement that any portion of the total assets managed by the System be accumulated and utilized solely for the benefit of certain classes of members or for members who are employees of certain participating entities, the System is regarded as administering a single plan for reporting purposes. Notwithstanding this, each of its participating entities is responsible for the funding of benefits related to that entity.

The System also provides group life insurance under a plan that is administered by a third party insurance company. Premiums are set and collected by the System. Benefit payments are made by the insurance company from premiums collected. Any shortfall of benefit payments over premiums collected is remitted by the System to the insurance company. (See page 28 of the required supplementary information for details concerning this plan.)

### 2. Summary of Significant Accounting Policies:

Effective July 1, 1996, the System adopted Government Accounting Standards Board (GASB) Statement No. 25, Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans. GASB Statement No. 25 establishes reporting and disclosure requirements for stand-alone pension benefit entities. The primary change in reporting relates to reporting of investments at fair value versus cost in the superseded standards. In addition, disclosure of actuarially determined benefit liabilities is presented in a separate required supplemental report, as opposed to on the face of the balance sheet in prior years. GASB Statement No. 25 also requires retroactive restatement of all prior periods presented. As a result the following adjustment to net assets has been made:

|  |                         |
|--|-------------------------|
| Net assets available for plan benefits as of June 30, 1995, as previously reported | \$ 2,750,522,177        |
| Unrealized gain on investments at June 30, 1995                                    | 925,377,665             |
| Beginning net assets held in trust for pension benefits as of July 1, 1995         | 3,675,899,842           |
| Unrealized gain for the year ended June 30, 1996                                   | 660,924,710             |
| Ending net assets held in trust for pension benefits as of June 30, 1996           | <u>\$ 4,336,824,552</u> |

#### Basis of Accounting

The System's financial statements are prepared using the accrual basis of accounting. Plan member contributions are recognized in the period in which the contributions are due and the employer has made a formal commitment to provide the contributions. Benefits and refunds are recognized when due and payable in accordance with the terms of each plan. Investment purchases and sales are recorded as of their trade date.

#### Investments

Investments are reported at fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. The fair value of the pro-rata share of units in commingled equity and fixed income index funds is determined by the respective fund trustee based on quoted sales prices of the underlying securities. The value of real estate investments is based on independent appraisals. Investments that do not have an established market are reported at estimated fair value.





## NOTES TO FINANCIAL STATEMENTS (continued)

### Summary of Significant Accounting Policies: (continued)

Net investment income includes net appreciation (depreciation) in the fair value of investments, interest income, dividend income, investment income from real estate, foreign currency transaction gains and losses, securities lending income and expenses and investment expenses, which includes investment management and custodial fees and all other significant investment related costs.

### Cash and Cash Equivalents

The System considers all highly liquid debt instruments with maturities of three months or less, when purchased, to be cash equivalents.

### Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make significant estimates and assumptions that affect the reported amounts of net assets held in trust for pension benefits at the date of the financial statements and the actuarial information included in the required supplementary information as of the benefit information date, the changes in net assets during the reporting period and, when applicable, the disclosure of contingent assets and liabilities at the date of the financial statements. Actual results could differ from those estimates.

### Risks and Uncertainties

The System makes investments in any combination of stocks, bonds, fixed income securities, mutual funds, commingled mutual and index funds, real estate and other investment securities. Investment securities and investment securities underlying certain investment securities are exposed to various risks, such as interest rate, market and credit. Due to the level of risk associated with certain investment securities and the level of uncertainty related to changes in the value of investment securities, it is at least reasonably possible that changes in the values of investment securities may occur in the near term and that such changes would materially affect the amounts reported in the statement of plan net assets and the statement of changes in plan net assets.

Contributions to the System and the actuarial information included in the required supplementary information are reported based on certain assumptions pertaining to interest rates, inflation rates and employee compensation and demographics. Due to the changing nature of these assumptions, it is at least reasonably possible that changes in these assumptions may occur in the near term and, due to uncertainties inherent in setting assumptions, that the effect of such changes could be material to the financial statements.

### **3. Cash and Investments:**

The System is authorized to invest in stocks, bonds, mortgages, real estate and other investments. The System maintains certain deposits, cash equivalents and other investments with financial institutions.

At June 30, 1997 and 1996, cash and cash equivalents were composed of the following:

|                                  | 1997           | 1996           |
|----------------------------------|----------------|----------------|
| Cash on deposit with local banks | \$ 21,442,670  | \$ 35,055,141  |
| Short-term investment funds      | 230,449,626    | 79,831,870     |
| Foreign currency deposits        | 11,800,416     |                |
| Total                            | \$ 263,692,712 | \$ 114,887,011 |





## NOTES TO FINANCIAL STATEMENTS (continued)

### 3. Cash and Investments: (continued)

The System's investments would generally be categorized into one of three separate categories. Category 1 includes investments, including units in common collective trusts, that are insured or registered and for which the securities are held by the System or its agent in the System's name. Category 2 includes uninsured and unregistered investments for which the securities are held by the broker or agent in the System's name. Category 3 includes uninsured and unregistered investments for which the securities are held by the broker or agent, but not in the System's name. At June 30, 1997 and 1996, all of the System's investments are considered Category 1.

At June 30, 1997 and 1996, the System had certain investments representing 5% or more of plan net assets, as follows:

|   | 1997                    | 1996                    |
|---|-------------------------|-------------------------|
| State Street-Wilshire 5000 Index Fund         | \$ 1,151,900,983        | \$ -0-                  |
| J.P. Morgan - Mortgage Private Placement Fund | 270,539,432             | 240,292,054             |
| State Street Standard & Poor's Growth Fund    | 271,357,561             | -0-                     |
| State Street Bond Market Index Fund           | 1,174,301,800           | -0-                     |
| Pangora Bond Index Fund                       | -0-                     | 1,085,063,107           |
| Pangora Equity-Wilshire 5000 Index Fund       | -0-                     | 983,659,439             |
|   | <u>\$ 2,868,099,776</u> | <u>\$ 2,309,014,600</u> |

### 4. Contribution and Reserves:

The System's funding policy provides for periodic employer contributions at actuarially determined rates that, expressed as percentages of annual covered payroll, are sufficient to accumulate adequate assets to pay benefits when due. Level percentage of payroll employer contribution rates are determined using the entry age normal actuarial funding method. The System also uses the level percentage of payroll method to amortize the unfunded liability of the State and teacher plan(s) over a closed 35 year period.

The State of Maine is required to remit 25% of its budgetary surplus at the end of its fiscal year to the System, in order to reduce any unfunded pension liability for state employees. Accordingly, for the years ended June 30, 1997 and 1996, the System recorded \$18,526,503 and \$6,000,000 in additional contributions from the State of Maine, of which \$14,892,189 and \$6,000,000 were recorded as other receivables due from the State at June 30, 1997 and 1996, respectively.

Significant actuarial assumptions used to compute contribution requirements are the same as those used to compute the standardized measure of the pension obligation discussed in the required supplementary information (see page 26).



**NOTES TO FINANCIAL STATEMENTS (continued)****4. Contribution and Reserves: (continued)**

The contribution rates as actuarially determined in effect for participating entities is as follows:

|                               | 1997         | 1996         |
|-------------------------------|--------------|--------------|
| State:                        |              |              |
| Employees*                    | 7.65 - 8.65% | 7.65 - 8.65% |
| Employer                      | 16.09%       | 16.13%       |
| Teacher:                      |              |              |
| Employees                     | 7.65%        | 7.65%        |
| Employers*                    | 19.42%       | 19.36%       |
| Participating Local Entities: |              |              |
| Employees                     | 6.5%         | 6.5%         |
| Employers*                    | 4.7 - 19%    | 4.7 - 19%    |

\* Contribution rates vary depending on specific terms of plan benefits for certain classes of employees or benefit plan options selected by a particular participating local entity.

By statute, the System maintains separate benefit reserve funds, as well as other reserves the board of trustees designates. At June 30, 1997 and 1996, the System had the following reserves:

|                           | 1997                    | 1996                    |
|---------------------------|-------------------------|-------------------------|
| Retirement allowance fund | \$ 3,972,417,933        | \$ 3,161,117,406        |
| Member contribution fund  | 1,210,347,393           | 1,148,700,778           |
| Group life reserve        | 28,778,622              | 27,006,378              |
| Expense fund              | 103,357                 | -0-                     |
| Other designated reserves | 2,549,531               | -0-                     |
|                           | <u>\$ 5,214,196,836</u> | <u>\$ 4,336,824,562</u> |

**5. Contingencies:**

The System's trustees and executive director are defendants in litigation involving individual benefit payment and participant eligibility issues under the Teachers' Plan. The suit seeks an injunction against the implementation of certain legislative changes to retirement system statutes. On August 1, 1996, the United States District Court for the District of Maine ruled in favor of the plaintiffs by invalidating certain amendments relating to vested members of the Teachers' Plan of the Retirement System as of July 1, 1993. Conversely, the court upheld the amendments as they applied to non-vested members of the Teachers' Plan of the Retirement System. The District Court's decision was appealed by both parties to the lawsuit to the United States Court of Appeals for the First Circuit. On August 11, 1997, the appeals court overturned the lower court ruling with regards to the vested members of the Teacher's plan and upheld the ruling as it related to non-vested members. The plaintiffs have the option to appeal this decision to the U.S. Supreme Court, but to date no action has been filed.



## NOTES TO FINANCIAL STATEMENTS (continued)

### 5. Contingencies: (continued)

In December 1996, a lawsuit was filed by a member of the State Plan. The lawsuit seeks the same relief as that sought by the above mentioned lawsuit under the Teachers' Plan. The ultimate outcome of this lawsuit is dependent upon the outcome of the Teachers' Plan lawsuit.

As of June 30, 1996, the System's actuaries have estimated that the financial statement impact, if the Teachers' Plan case is appealed to the U.S. Supreme Court and such appeal is successful, would cause the unfunded liabilities to increase by approximately \$276 million for the vested Teachers' Plan participants and approximately \$108 million for the non-vested Teachers' Plan participants. If the lawsuit filed on behalf of state employee members is successful, the financial statement impact has been estimated at \$57 million for vested State Plan participants and \$36 million for non-vested State Plan participants. As the ultimate outcome of this case is unknown, no amounts have been recorded in the required supplementary information for any increase in the unfunded liability described above. In the event of an adverse decision, resulting costs would be recovered by the System through adjustments to the State's employer contribution rate.

### 6. Constitutional Amendment:

In November 1995, voters in the State approved a constitutional amendment which requires the State to fund unfunded liabilities existing as of June 30, 1996, of the State and teacher plans over a period not to exceed 31 years, commencing June 30, 1997. The creation of new unfunded liabilities is prohibited, except those arising from experience losses, which must be funded over a period of not more than ten years. In addition, the amendment requires use of actuarially sound current-cost accounting, reinforcing the existing statutory requirements.





# **MAINE STATE RETIREMENT SYSTEM REQUIRED SUPPLEMENTARY INFORMATION**

## **Schedule of Funding Progress**

|                                | (a)                          | (b)  | (b - a)                | (a/b)        | (c)                          | ((b - a)/c)<br>UAAL<br>(as a per-<br>centage of<br>covered<br>payroll) |
|--------------------------------|------------------------------|--|------------------------|--------------|------------------------------|--|
| Actuarial<br>valuation<br>date | Actuarial value<br>of assets | Actuarial<br>accrued liability<br>(AAL) - entry<br>age | Unfunded AAL<br>(UAAL) | Funded ratio | Annual<br>Covered<br>Payroll |  |
| 1997                           | \$ 4,602,973,536             | \$ 7,291,821,034                                       | \$ 2,688,847,498       | 63.1%        | \$ 1,341,612,931             | 200.4%   |
| 1996                           | 3,959,367,717                | 6,985,476,378  | 3,026,108,661          | 56.7%        | 1,316,462,200                | 229.9%   |

## **Schedule of Employer Contributions**

| <u>Year ended</u> | <u>Annual required<br/>contribution</u> | <u>Actual<br/>contribution</u> | <u>Percentage<br/>contributed</u> |
|-------------------|---|--------------------------------|-----------------------------------|
| 1997              | \$ 249,327,155                          | \$ 267,853,658                 | 107.4%                            |
| 1996              | 247,646,796                             | 253,646,796                    | 102.4%                            |



## MAINE STATE RETIREMENT SYSTEM NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

### Basis of Presentation:

For financial statement reporting purposes, the information provided on the required supplementary information schedules includes combined amounts for all participating entities: state employees, teachers, judicial and legislative employees, as well as employees of participating local districts.

### Actuarial Assumptions and Methods:

The information in the required supplemental schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation date, July 1, 1997, is as follows:

#### Funding Method

Costs are developed using the entry age normal cost method (based on a level percentage of covered payroll). Under the method used for this plan, the accrued liability and the present value of future normal costs are determined by summing the individual entry age results for each participant. The normal cost is then determined in aggregate by spreading the present value of future normal costs as a level percentage of expected future covered payroll. Entry age is defined as the first day service is credited under the plan.

Experience gains and losses, i.e., decreases or increases in liabilities when actual experience differs from the actuarial assumptions, adjust the unfunded actuarial accrued liability.

#### Asset Valuation Method

For actuarial purposes, assets are valued by determining the total yield on the investments of the System using the full investment return (including capital gains), which is measured by the difference in the actuarial value of the assets at the beginning of the fiscal year and the market value of the assets at the end of the fiscal year. Prior year's unrecognized gains and losses are added to this amount to develop expected actuarial value. One third of the excess of the yield (using the full investment return) is added to the expected actuarial value to determine the actuarial valuation of assets.

#### Amortization

The unfunded actuarial accrued liability is amortized on a level percentage of payroll over a 35 year closed period from June 30, 1993.

Significant actuarial assumptions employed by the actuary for funding purposes as of July 1, 1997 are as follows:

Investment Return - 8% per annum, compounded annually

Salary Increases - 6% to 10% per year (includes inflation of 4.0%)

Mortality Rates - Active State and participating local entity members and non-disabled pensioners - 1971 Group Annuity Mortality Table; Active teachers and non-disabled teacher pensioners - 1971 Group Annuity Table with ages set back two years; All disabled pensioners - 1964 Commissioner Disability Table.

Post Retirement Benefit Increases - 4% per annum



**NOTES TO REQUIRED SUPPLEMENTARY INFORMATION (continued)****Group Life Plan:**

The Group Life Insurance Program administered by the System provides for a life insurance benefit for active members equal to a member's annual base compensation as defined by statute. Upon retirement, life insurance coverage in the amount of the member's average final compensation is provided with a reduction of 15% per year until the greater of 40% of the average final compensation or \$2,500 is reached. To be covered in retirement, retirees must have participated in the Group Life Program for a minimum of ten years. Premiums are remitted to the System by the employer. The State pays a premium rate of \$0.30 per \$1,000 of coverage per month for state employees. Teachers and employees of participating local districts pay a premium rate of \$0.22 and \$0.46 per \$1,000 of coverage per month, respectively, some or all of which may be deducted from employees' compensation as per individual agreements with employees. Assumptions used to determine the actuarial liability are the same as for the pension plan. At June 30, 1997 and 1996, the plan had the following actuarially determined liabilities:

|                        | (In millions)  |             |
|------------------------|----------------|-------------|
|                        | 1997           | 1996        |
| Actuarial liabilities: |                |             |
| Active members         | \$ 37.8        | \$ 33.5     |
| Retired members        | 38.7           | 38.5        |
| Total                  | <u>\$ 76.5</u> | <u>72.0</u> |



**INDEPENDENT ACCOUNTANT'S REPORT ON COMPLIANCE AND ON  
INTERNAL CONTROL OVER FINANCIAL REPORTING BASED ON AN AUDIT OF  
FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH  
GOVERNMENT AUDITING STANDARDS**

Board of Trustees  
Maine State Retirement System:

We have audited the financial statements of the Maine State Retirement System (the "System"), which is a component unit of the State of Maine, as of and for the year ended June 30, 1997, and have issued our report thereon dated November 14, 1997. We conducted our audit in accordance with generally accepted auditing standards and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States.

Compliance

As part of obtaining reasonable assurance about whether the System's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations and contracts, noncompliance which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance that are required to be reported under *Government Auditing Standards*.

Internal Control Over Financial Reporting

In planning and performing our audit, we considered the System's internal control over financial reporting in order to determine our auditing procedures for the purpose of expressing an opinion on the financial statements and not to provide assurance on the internal control over financial reporting. Our consideration of the internal control over financial reporting would not necessarily disclose all matters in the internal control over financial reporting that might be material weaknesses. A material weakness is a condition in which the design or operation of one or more of the internal control components does not reduce to a relatively low level the risk that misstatements in amounts that would be material in relation to the financial statements being audited may occur and not be detected within a timely period by employees in the normal course of performing their assigned functions. We noted no matters involving the internal control over financial reporting and its operation that we consider to be material weaknesses.

This report is intended for the information of the Board of Trustees and management. However, this report is a matter of public record and its distribution is not limited.

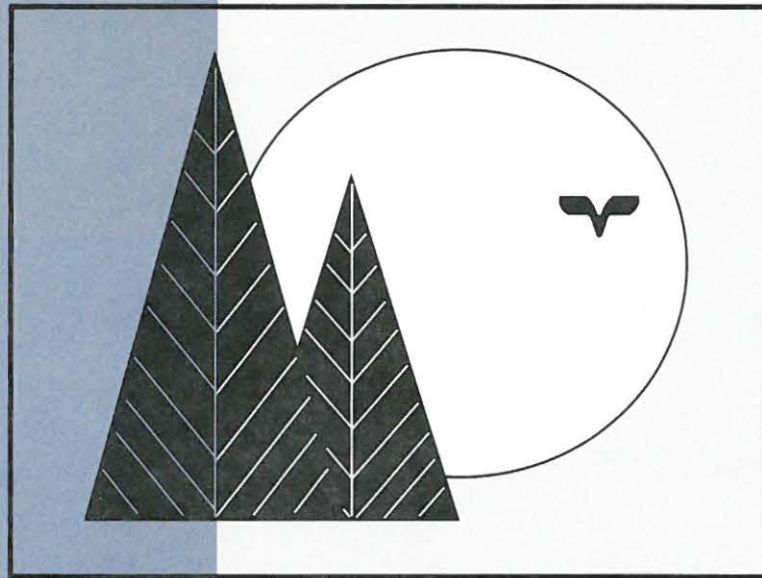
Portland, Maine  
November 14, 1997

Coopers & Lybrand L.L.P.





TRUST FUND BALANCES FOR  
THE YEAR ENDED JUNE 30, 1997









## TRUST FUND BALANCES AS OF JUNE 30, 1997

| Ref<br>Nbr | Plan or District Name          | Members' Contribution | Retirement Allowance | Total Trust<br>Fund Reserves |
|------------|--------------------------------|-----------------------|----------------------|------------------------------|
| 1          | STATE                          | \$ 391,842,529        | \$ 1,057,503,850     | \$ 1,449,346,379             |
| 7          | TEACHERS                       | 644,167,326           | 1,465,460,862        | 2,109,628,188                |
| 373        | CONSOLIDATED - 1C              | 10,139,312            | 168,081,802          | 178,221,114                  |
| 374        | CONSOLIDATED - 1N              | 1,767,778             | 16,556,761           | 18,324,539                   |
| 375        | CONSOLIDATED - 2C              | 15,514,120            | 113,416,155          | 128,930,275                  |
| 376        | CONSOLIDATED - 2N              | 1,092,913             | 4,689,032            | 5,781,945                    |
| 377        | CONSOLIDATED - 3C              | 3,770,907             | 35,124,601           | 38,895,508                   |
| 378        | CONSOLIDATED - 3N              | 2,162,163             | 13,661,306           | 15,823,469                   |
| 379        | CONSOLIDATED - 4C              | 1,478,814             | 5,414,167            | 6,892,982                    |
| 380        | CONSOLIDATED - 4N              | 322,978               | 264,091              | 587,069                      |
| 370        | CONSOLIDATED - AC              | 85,413,469            | 425,440,050          | 510,853,518                  |
| 371        | CONSOLIDATED - AN              | 15,333,560            | 68,546,297           | 83,879,858                   |
| 372        | CONSOLIDATED - BC              | 1,326                 | 1,550                | 2,875                        |
| 6          | DISABILITY                     | 26,127,593            | 325,097,555          | 351,225,148                  |
| 350        | JUDICIAL                       | 3,303,569             | 22,552,532           | 25,856,101                   |
| 351        | LEGISLATIVE                    | 590,172               | 3,251,799            | 3,841,971                    |
| 492        | SURVIVOR BENEFITS              | -                     | 118,781,619          | 118,781,619                  |
| 106        | AROOSTOOK COUNTY               | -                     | 641,882              | 641,882                      |
| 43         | AUBURN PUBLIC LIBRARY          | -                     | 278,674              | 278,674                      |
| 69         | BAILEYVILLE                    | -                     | 473,309              | 473,309                      |
| 59         | BANGOR WATER DISTRICT          | -                     | 405,381              | 405,381                      |
| 73         | BATH                           | -                     | 7,553,416            | 7,553,416                    |
| 35         | BELFAST                        | -                     | 203,627              | 203,627                      |
| 108        | BERWICK                        | -                     | 148,471              | 148,471                      |
| 207        | BERWICK SEWER DISTRICT         | -                     | 9,591                | 9,591                        |
| 246        | BETHEL                         | -                     | 205,036              | 205,036                      |
| 158        | BIDDEFORD                      | -                     | 603,730              | 603,730                      |
| 157        | BINGHAM WATER DISTRICT         | -                     | 40,005               | 40,005                       |
| 146        | BOOTHBAY HARBOR                | -                     | 258,947              | 258,947                      |
| 21         | BOOTHBAY HARBOR WATER          | -                     | 312,419              | 312,419                      |
| 199        | BRADFORD                       | -                     | 19,658               | 19,658                       |
| 176        | BRIDGTON                       | 2,994                 | 344,051              | 347,045                      |
| 253        | BRIDGTON WATER DISTRICT        | -                     | 47,303               | 47,303                       |
| 177        | BROWNVILLE                     | 17,249                | 267,011              | 284,260                      |
| 42         | BRUNSWICK                      | -                     | 1,153,715            | 1,153,715                    |
| 72         | BRUNSWICK SEWER                | -                     | 193,787              | 193,787                      |
| 130        | BUCKSPORT                      | -                     | 525,324              | 525,324                      |
| 36         | CALAIS                         | -                     | 367,678              | 367,678                      |
| 85         | CAPE ELIZABETH                 | 710,784               | 6,071,060            | 6,781,844                    |
| 135        | CAPITOL COASTAL COUNC OF GOV'T | -                     | 193,024              | 193,024                      |
| 208        | CARIBOU FIRE AND POLICE        | -                     | 1,349,013            | 1,349,013                    |
| 265        | CASTLE HILL                    | -                     | 104,864              | 104,864                      |
| 235        | CHINA                          | -                     | 43,730               | 43,730                       |
| 217        | CORINNA                        | -                     | 143,523              | 143,523                      |
| 251        | CORINNA SEWER DISTRICT         | -                     | 113,195              | 113,195                      |
| 204        | CSD #3 - BOOTHBAY              | 47,811                | 420,039              | 467,850                      |
| 252        | CSD #12 - TOPSFIELD            | -                     | 62,175               | 62,175                       |
| 266        | CSD #18 - WELLS/OGUNQUIT       | -                     | 217,346              | 217,346                      |
| 216        | CUMBERLAND                     | -                     | 299,954              | 299,954                      |
| 5          | CUMBERLAND COUNTY              | -                     | 756,503              | 756,503                      |
| 191        | DAMRISCOTTA                    | -                     | 261,723              | 261,723                      |
| 97         | DEXTER                         | -                     | 103,391              | 103,391                      |





## TRUST FUND BALANCES AS OF JUNE 30, 1997 (continued)

| <u>Ref<br/>Nbr</u> | <u>Plan or District Name</u>      | <u>Members' Contribution</u> | <u>Retirement Allowance</u> | <u>Total Trust<br/>Fund Reserves</u> |
|--------------------|-----------------------------------|------------------------------|-----------------------------|--------------------------------------|
| 197                | DIXFIELD                          | \$ 685                       | \$ 288,312                  | \$ 288,998,167                       |
| 167                | DOVER FOXCROFT                    | -                            | 258,357                     | 258,357                              |
| 137                | DOVER FOXCROFT WATER              | -                            | 29,235                      | 29,235                               |
| 234                | DURHAM                            | -                            | 94,146                      | 94,146                               |
| 180                | ELIOT                             | -                            | 303,392                     | 303,392                              |
| 13                 | ELLSWORTH                         | -                            | 120,228                     | 120,228                              |
| 249                | ERSKINE ACADEMY                   | -                            | 85,394                      | 85,394                               |
| 156                | EXETER                            | 6,840                        | 11,290                      | 18,130                               |
| 260                | FAIRFIELD                         | -                            | 284,914                     | 284,914                              |
| 58                 | FALMOUTH MEM LIBRARY              | -                            | 86,090                      | 86,090                               |
| 100                | FARMINGTON                        | -                            | 189,585                     | 189,585                              |
| 17                 | FORT FAIRFIELD                    | 64,171                       | 1,120,052                   | 1,184,224                            |
| 275                | FORT FAIRFIELD HOUS AUTH          | -                            | 5,552                       | 5,552                                |
| 131                | FORT FAIRFIELD UTILITIES          | -                            | 16,913                      | 16,913                               |
| 91                 | FORT KENT                         | 223,098                      | 951,538                     | 1,174,636                            |
| 102                | FRANKLIN COUNTY                   | 165,175                      | 954,647                     | 1,119,822                            |
| 142                | FREEPORT                          | 3,709                        | 930,645                     | 934,354                              |
| 98                 | FRENCHVILLE                       | -                            | 49,741                      | 49,741                               |
| 149                | FRYEBURG                          | -                            | 64,991                      | 64,991                               |
| 24                 | GARDINER                          | -                            | 786,288                     | 786,288                              |
| 221                | GARDINER WATER DISTRICT           | -                            | 86,149                      | 86,149                               |
| 261                | GEORGETOWN                        | -                            | 56,965                      | 56,965                               |
| 133                | GORHAM                            | -                            | 547,182                     | 547,182                              |
| 205                | GOULD ACADEMY                     | -                            | 205,099                     | 205,099                              |
| 112                | GREENVILLE                        | -                            | 248,962                     | 248,962                              |
| 94                 | GRTR PORTLAND COUNC GOV'T         | 53,223                       | 1,354,325                   | 1,407,548                            |
| 160                | HALLOWELL                         | -                            | 104,976                     | 104,976                              |
| 151                | HAMPDEN                           | -                            | 12,950                      | 12,950                               |
| 183                | HAMPDEN WATER DISTRICT            | -                            | 86,833                      | 86,833                               |
| 150                | HERMON                            | -                            | 398,223                     | 398,223                              |
| 215                | HODGDON                           | -                            | 11,140                      | 11,140                               |
| 285                | HOMESTEAD PROJECT                 | 10,673                       | 79,624                      | 90,297                               |
| 10                 | HOULTON                           | -                            | 1,108,408                   | 1,108,408                            |
| 232                | HOWLAND                           | -                            | 61,810                      | 61,810                               |
| 244                | INDIAN TOWNSHIP TRIBAL GOV'T      | -                            | 1,225,690                   | 1,225,690                            |
| 173                | INDIAN TWNSHIP PASS RES HOUS AUTH | -                            | 153,907                     | 153,907                              |
| 226                | JACKMAN WATER DISTRICT            | -                            | 624                         | 624                                  |
| 255                | KENNBUNK,KENNPORT,WELLS WATER     | -                            | 291,512                     | 291,512                              |
| 47                 | KENNEBEC COUNTY                   | -                            | 16,853                      | 16,853                               |
| 220                | KENNEBEC SANITARY DISTRICT        | -                            | 219,300                     | 219,300                              |
| 31                 | KENNEBEC WATER                    | -                            | 740,171                     | 740,171                              |
| 84                 | KENNEBUNK                         | -                            | 510,767                     | 510,767                              |
| 201                | KENNEBUNK SEWER DISTRICT          | -                            | 276,381                     | 276,381                              |
| 188                | KENNEBUNKPORT                     | -                            | 727,222                     | 727,222                              |
| 14                 | KITTERY                           | -                            | 250,410                     | 250,410                              |
| 12                 | KITTERY WATER                     | -                            | 239,131                     | 239,131                              |
| 33                 | KNOX COUNTY                       | 35,567                       | 603,122                     | 638,689                              |
| 181                | LEBANON                           | -                            | 182,508                     | 182,508                              |
| 163                | LEW AUB WAT POLL CONTR AUTH       | -                            | 59,347                      | 59,347                               |
| 245                | LIMESTONE                         | 91,584                       | 335,705                     | 427,289                              |
| 29                 | LIMESTONE WATER AND SEWER         | 58,091                       | 296,216                     | 354,307                              |





## TRUST FUND BALANCES AS OF JUNE 30, 1997 (continued)

| Ref<br>Nbr | Plan or District Name         | Members' Contribution | Retirement Allowance | Total Trust<br>Fund Reserves |
|------------|-------------------------------|-----------------------|----------------------|------------------------------|
| 76         | LINCOLN                       | \$ -                  | \$ 1,073,357         | \$ 1,073,357                 |
| 134        | LINCOLN ACADEMY               | -                     | 137,301              | 137,301                      |
| 95         | LINCOLN COUNTY                | 100,394               | 1,790,729            | 1,891,124                    |
| 214        | LINNEUS                       | -                     | 4,546                | 4,546                        |
| 103        | LISBON                        | -                     | 497,622              | 497,622                      |
| 243        | LISBON WATER                  | -                     | 41,247               | 41,247                       |
| 32         | LIVERMORE FALLS WATER         | -                     | 11,038               | 11,038                       |
| 109        | LIVERMORE FALLS               | -                     | 183,726              | 183,726                      |
| 276        | LOVELL                        | -                     | 39,805               | 39,805                       |
| 228        | LUBEC                         | -                     | 140,212              | 140,212                      |
| 88         | LUBEC WATER & ELECTRIC        | -                     | 904                  | 904                          |
| 225        | MAINE COUNTY COMM ASSOC       | -                     | 21,306               | 21,306                       |
| 169        | MAINE HOUSING AUTHORITY       | 157,628               | 1,454,439            | 1,612,067                    |
| 38         | MAINE MARITIME ACADEMY        | -                     | 4,042,543            | 4,042,543                    |
| 55         | MAINE MUNICIPAL ASSOCIATION   | 130,276               | 1,010,495            | 1,140,772                    |
| 227        | MARS HILL                     | -                     | 265,518              | 265,518                      |
| 120        | MDI REGIONAL SCHOOL DISTRICT  | -                     | 126,257              | 126,257                      |
| 105        | ME STATE PRINCIPALS ASSOC     | -                     | 53,551               | 53,551                       |
| 114        | MECHANIC FALLS                | -                     | 211,574              | 211,574                      |
| 194        | MEDWAY                        | -                     | 65,704               | 65,704                       |
| 74         | MEXICO                        | -                     | 280,065              | 280,065                      |
| 186        | MILFORD                       | -                     | 91,788               | 91,788                       |
| 3          | MILLINOCKET                   | -                     | 730,267              | 730,267                      |
| 104        | MILO                          | 2,275                 | 318,089              | 320,364                      |
| 238        | MILO WATER DISTRICT           | -                     | 103,182              | 103,182                      |
| 184        | MONSON                        | -                     | 16,176               | 16,176                       |
| 16         | MT. DESERT                    | -                     | 102,145              | 102,145                      |
| 138        | NAPLES                        | -                     | -                    | -                            |
| 172        | NEW CANADA PLANTATION         | -                     | 26,282               | 26,282                       |
| 210        | NEW GLOUCESTER                | -                     | 195,865              | 195,865                      |
| 254        | NORTH BERWICK                 | -                     | 154,685              | 154,685                      |
| 125        | NORWAY                        | -                     | 175,176              | 175,176                      |
| 284        | NORWAY PARIS SOLID WASTE CORP | 2,291                 | 87,655               | 89,946                       |
| 140        | OLD ORCHARD BEACH             | 634,258               | 6,199,266            | 6,833,524                    |
| 111        | OLD TOWN                      | -                     | 724,941              | 724,941                      |
| 262        | OLD TOWN HOUSING              | -                     | 40,664               | 40,664                       |
| 79         | OLD TOWN WATER                | -                     | 81,997               | 81,997                       |
| 166        | ORLAND                        | -                     | 226,410              | 226,410                      |
| 61         | ORONO                         | -                     | 823,070              | 823,070                      |
| 209        | ORRINGTON                     | -                     | 210,329              | 210,329                      |
| 200        | OXFORD                        | -                     | 4,477                | 4,477                        |
| 57         | OXFORD COUNTY                 | -                     | 84,410               | 84,410                       |
| 127        | PARIS                         | -                     | 228,701              | 228,701                      |
| 159        | PARIS UTILITY DISTRICT        | -                     | 42,757               | 42,757                       |
| 11         | PENOBSCOT COUNTY              | -                     | 585,940              | 585,940                      |
| 202        | PHIPPSBURG                    | -                     | 203,135              | 203,135                      |
| 121        | PISCATQUIS COUNTY             | -                     | 74,861               | 74,861                       |
| 110        | PITTSFIELD                    | -                     | 664,562              | 664,562                      |
| 41         | PORTLAND PUBLIC LIBRARY       | -                     | 4,948                | 4,948                        |
| 4          | PRESQUE ISLE                  | 2,314,535             | 16,770,615           | 19,085,149                   |





**TRUST FUND BALANCES AS OF JUNE 30, 1997**  
(continued)

| <u>Ref</u><br><u>Nbr</u> | <u>Plan or District Name</u>   | <u>Members' Contribution</u> | <u>Retirement Allowance</u> | <u>Total Trust</u><br><u>Fund Reserves</u> |
|--------------------------|--------------------------------|------------------------------|-----------------------------|--|
| 212                      | READFIELD                      | \$ -                         | \$ 49,822                   | \$ 49,822                                  |
| 258                      | PRINCETON                      | -                            | 153,706                     | 153,706                                    |
| 268                      | PROJECT LODESTONE              | 2,539                        | 35,875                      | 38,413                                     |
| 269                      | REGION 4 - SO PENOBSCOT        | -                            | 63,303                      | 63,303                                     |
| 224                      | REGION 7 - WALDO               | -                            | 150,041                     | 150,041                                    |
| 213                      | RICHMOND                       | 46,221                       | 500,038                     | 546,258                                    |
| 242                      | RICHMOND UTILITIES             | -                            | 20,131                      | 20,131                                     |
| 161                      | ROCKPORT                       | -                            | 43,834                      | 43,834                                     |
| 247                      | RUMFORD MEXICO SEWAGE DISTRICT | -                            | 48,676                      | 48,676                                     |
| 175                      | SABATTUS                       | -                            | 268,323                     | 268,323                                    |
| 192                      | SACO                           | -                            | 848,544                     | 848,544                                    |
| 119                      | SAD#9 - FARMINGTON             | -                            | 218,668                     | 218,668                                    |
| 190                      | SAD # 16 - HALLOWELL           | -                            | 194,135                     | 194,135                                    |
| 223                      | SAD #13 - BINGHAM              | -                            | 201,160                     | 201,160                                    |
| 211                      | SAD #21 - DIXFIELD             | -                            | 103,817                     | 103,817                                    |
| 78                       | SAD #28                        | -                            | 51,157                      | 51,157                                     |
| 168                      | SAD #29                        | -                            | 206,831                     | 206,831                                    |
| 50                       | SAD #31 - HOWLAND              | -                            | 109,840                     | 109,840                                    |
| 77                       | SAD #34 - BELFAST              | 253,950                      | 2,604,623                   | 2,858,573                                  |
| 143                      | SAD #41 - MILO                 | -                            | 461,338                     | 461,338                                    |
| 189                      | SAD #49 - FAIRFIELD            | -                            | 287,262                     | 287,262                                    |
| 198                      | SAD #51 - CUMBERLAND           | -                            | 463,457                     | 463,457                                    |
| 129                      | SAD #53                        | -                            | 89,105                      | 89,105                                     |
| 115                      | SAD #54                        | -                            | 182,519                     | 182,519                                    |
| 218                      | SAD #56 - SEARSPORT            | 72,495                       | 409,073                     | 481,568                                    |
| 187                      | SAD #60 - NORTH BERWICK        | -                            | 628,783                     | 628,783                                    |
| 113                      | SAD #66 - ELLSWORTH            | -                            | 422,032                     | 422,032                                    |
| 126                      | SAD #67                        | -                            | 273,741                     | 273,741                                    |
| 128                      | SAD #71                        | -                            | 644,174                     | 644,174                                    |
| 96                       | SAGadahoc COUNTY               | 26,128                       | 1,388,222                   | 1,414,350                                  |
| 30                       | SAINT AGATHA                   | -                            | 176,048                     | 176,048                                    |
| 83                       | SANFORD                        | -                            | 3,028,176                   | 3,028,176                                  |
| 89                       | SANFORD SEWERAGE               | -                            | 147,996                     | 147,996                                    |
| 170                      | SANFORD WATER DISTRICT         | -                            | 317,222                     | 317,222                                    |
| 117                      | SEARSPORT                      | -                            | 345,593                     | 345,593                                    |
| 124                      | SEARSPORT WATER                | -                            | 116,850                     | 116,850                                    |
| 80                       | SKOWHEGAN                      | -                            | 550,943                     | 550,943                                    |
| 171                      | SO BERWICK WATER DISTRICT      | -                            | 8,867                       | 8,867                                      |
| 206                      | SO PORTLAND HOUSING            | -                            | 533,527                     | 533,527                                    |
| 141                      | SOUTH BERWICK                  | -                            | 231,266                     | 231,266                                    |
| 164                      | THOMASTON                      | 37,630                       | 605,505                     | 643,135                                    |
| 81                       | TOPSHAM                        | -                            | 348,300                     | 348,300                                    |
| 267                      | TRI-COMMUNITY LANDFILL         | -                            | 8,182                       | 8,182                                      |
| 182                      | VAN BUREN                      | -                            | 217,829                     | 217,829                                    |
| 229                      | VAN BUREN HOUSING AUTH         | -                            | 110,428                     | 110,428                                    |
| 153                      | VASSALBORO                     | -                            | 166,994                     | 166,994                                    |
| 162                      | WALLGRASS PLANTATION           | -                            | 13,881                      | 13,881                                     |
| 40                       | WASHINGTON COUNTY              | -                            | 6,758                       | 6,758                                      |



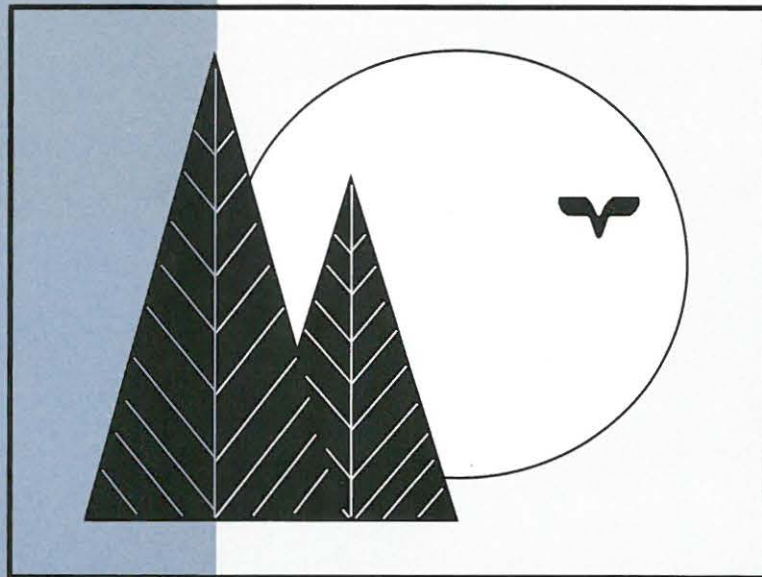
## TRUST FUND BALANCES AS OF JUNE 30, 1997 (continued)

| Ref<br>Nbr   | Plan or District Name        | Members' Contribution   | Retirement Allowance    | Total Trust<br>Fund Reserves |
|--------------|------------------------------|-------------------------|-------------------------|------------------------------|
| 66           | WATERVILLE FIRE AND POLICE   | -                       | 828,046                 | 828,046                      |
| 107          | WELLS                        | \$ -                    | \$ 219,084              | \$ 219,084                   |
| 122          | WESTBROOK                    | 668,465                 | 6,859,087               | 7,527,552                    |
| 70           | WESTBROOK FIRE AND POLICE    | 1,040,368               | 16,598,078              | 17,638,445                   |
| 241          | WESTERN ME COMM ACTION COUNC | 151,479                 | 992,387                 | 1,143,865                    |
| 86           | WILTON                       | 186,276                 | 821,678                 | 1,007,954                    |
| 144          | WINSLOW                      | -                       | 606,633                 | 606,633                      |
| 250          | WINTER HARBOR UTILITIES      | -                       | 15,437                  | 15,437                       |
| 179          | WINTHROP                     | -                       | 509,539                 | 509,539                      |
| 116          | YARMOUTH                     | -                       | 431,894                 | 431,894                      |
| 28           | TOWN OF YORK                 | -                       | 183,009                 | 183,009                      |
| 37           | YORK COUNTY                  | -                       | 583,498                 | 583,498                      |
| 39           | YORK WATER DISTRICT          | -                       | 129,228                 | 129,228                      |
| <b>TOTAL</b> |                              | <b>\$ 1,210,347,393</b> | <b>\$ 3,972,417,934</b> | <b>\$5,182,765,327</b>       |





# INVESTMENTS AT JUNE 30, 1997



|                        |    |
|------------------------|----|
| Assets By Manager      | 41 |
| Asset Allocation       | 42 |
| Investment Performance | 43 |
| System Holdings        | 44 |







## ASSETS BY MANAGER

### June 30, 1997

#### FOR THE MAINE STATE RETIREMENT SYSTEM

|  | <u>COST</u>             | <u>MARKET VALUE</u>     | <u>UNREALIZED<br/>GAIN/LOSS</u> |
|--|-------------------------|-------------------------|---------------------------------|
| ALLIANCE CAPITAL - EQUITY              | \$ 151,583,387          | \$ 237,487,459          | \$ 85,904,072                   |
| ALLIANCE CAPITAL - FIXED INCOME        | 227,278,817             | 228,501,948             | 1,223,131                       |
| ARK ASSET MANAGEMENT                   | 248,841,919             | 289,461,680             | 40,619,761                      |
| BANKERS TRUST - INTERNATIONAL EAFE     | 79,984,304              | 135,850,159             | 55,865,854                      |
| CASH ACCOUNT                           | 152,844,868             | 152,844,868             | -                               |
| CRAMER, ROSENTHAL, & MCGLYNN           | 102,208,967             | 122,568,932             | 20,359,966                      |
| FINANCE AUTHORITY OF MAINE             | 8,912,650               | 8,912,650               | -                               |
| FIRST RESERVE ENERGY ADVISORS          | 1,169,943               | 739,162                 | (430,781)                       |
| GOUWS CAPITAL MANAGEMENT               | 126,265,305             | 141,256,294             | 14,990,989                      |
| JP MORGAN - MORTGAGES                  | 240,589,617             | 270,540,494             | 29,950,878                      |
| JP MORGAN - MULTI MARKET I             | 33,985,558              | 46,911,039              | 12,925,481                      |
| JP MORGAN - MULTI MARKET II            | 30,176,913              | 36,173,779              | 5,996,866                       |
| JP MORGAN - PRIVATE PLACEMENTS         | 90,815,589              | 101,358,760             | 10,543,171                      |
| MARTIN CURRIE                          | 114,313,102             | 136,372,246             | 22,059,144                      |
| PEREGRINE ASSET MANAGEMENT             | 190,727,902             | 240,344,736             | 49,616,834                      |
| ROWE PRICE FLEMING                     | 109,771,931             | 134,676,472             | 24,904,541                      |
| STATE STREET EQUITY CORE               | 979,307,801             | 1,151,900,893           | 172,593,093                     |
| STATE STREET FIXED CORE                | 1,138,914,562           | 1,174,301,800           | 35,387,238                      |
| STATE STREET GROWTH INDEX              | 232,094,780             | 271,357,561             | 39,262,782                      |
| STATE STREET VALUE INDEX               | 99,263,185              | 115,595,860             | 16,332,676                      |
| WALTER SCOTT AND PARTNERS              | 112,268,521             | 144,965,538             | 32,697,017                      |
| <b>TOTAL ASSETS</b>                    | <b>\$ 4,471,319,621</b> | <b>\$ 5,142,122,331</b> | <b>\$ 670,802,711</b>           |
| <br><b><u>GROUP LIFE INSURANCE</u></b> |                         |                         |                                 |
| <b>JP MORGAN - GROUP LIFE</b>          | <b>\$ 27,991,904</b>    | <b>\$ 27,995,049</b>    | <b>\$ 3,145</b>                 |





## ASSET ALLOCATION

### June 30, 1997

|                                    | PERCENT<br>OF TOTAL | COST                    | MARKET VALUE            | UNREALIZED<br>GAIN/LOSS |
|------------------------------------|---------------------|-------------------------|-------------------------|-------------------------|
| <b>TOTAL ASSETS</b>                | <b>100%</b>         | <b>\$ 4,471,319,621</b> | <b>\$ 5,142,122,331</b> | <b>\$ 670,802,711</b>   |
| <b>TOTAL CASH</b>                  | <b>3.0%</b>         | <b>\$ 152,844,868</b>   | <b>\$ 152,844,868</b>   | <b>-</b>                |
| <b>TOTAL DOMESTIC EQUITY</b>       | <b>51.6%</b>        | <b>\$ 2,194,455,716</b> | <b>\$ 2,653,058,234</b> | <b>\$ 458,602,518</b>   |
| ALLIANCE CAPITAL - EQUITY          | 4.6%                | 151,583,387             | 237,487,459             | 85,904,072              |
| ARK ASSET MANAGEMENT               | 5.6%                | 248,841,919             | 289,461,680             | 40,619,761              |
| CRAMER, ROSENTHAL, & MCGLYNN       | 2.4%                | 102,208,967             | 122,568,932             | 20,359,966              |
| GOUWS CAPITAL MANAGEMENT           | 2.7%                | 126,265,305             | 141,256,294             | 14,990,989              |
| JP MORGAN - MULTIMARKET I          | 0.9%                | 33,985,558              | 46,911,039              | 12,925,481              |
| JP MORGAN - MULTIMARKET II         | 0.7%                | 30,176,913              | 36,173,779              | 5,996,866               |
| PEREGRINE ASSET MANAGEMENT         | 4.7%                | 190,727,902             | 240,344,736             | 49,616,834              |
| STATE STREET EQUITY CORE           | 22.4%               | 979,307,801             | 1,151,900,893           | 172,593,093             |
| STATE STREET GROWTH INDEX          | 5.3%                | 232,094,780             | 271,357,561             | 39,262,782              |
| STATE STREET VALUE INDEX           | 2.2%                | 99,263,185              | 115,595,860             | 16,332,676              |
| <b>TOTAL DOMESTIC FIXED INCOME</b> | <b>34.5%</b>        | <b>\$ 1,697,598,585</b> | <b>\$ 1,774,703,002</b> | <b>\$ 77,104,417</b>    |
| ALLIANCE CAPITAL - FIXED INCOME    | 4.4%                | 227,278,817             | 228,501,948             | 1,223,131               |
| JP MORGAN - MORTGAGES              | 5.3%                | 240,589,617             | 270,540,494             | 29,950,878              |
| JP MORGAN - PRIVATE PLACEMENTS     | 2.0%                | 90,815,589              | 101,358,760             | 10,543,171              |
| STATE STREET FIXED CORE            | 22.8%               | 1,138,914,562           | 1,174,301,800           | 35,387,238              |
| <b>TOTAL INTERNATIONAL EQUITY</b>  | <b>10.7%</b>        | <b>\$ 416,337,859</b>   | <b>\$ 551,864,415</b>   | <b>\$ 135,526,556</b>   |
| BANKERS TRUST - INTERNATIONAL EAFE | 2.6%                | 79,984,304              | 135,850,159             | 55,865,854              |
| MARTIN CURRIE                      | 2.7%                | 114,313,102             | 136,372,246             | 22,059,144              |
| ROWE PRICE FLEMING                 | 2.6%                | 109,771,931             | 134,676,472             | 24,904,541              |
| WALTER SCOTT AND PARTNERS          | 2.8%                | 112,268,521             | 144,965,538             | 32,697,017              |
| <b>TOTAL OTHER INVESTMENTS</b>     | <b>0.2%</b>         | <b>\$ 10,082,593</b>    | <b>\$ 9,651,812</b>     | <b>(\$ 430,781)</b>     |
| FINANCE AUTHORITY OF MAINE         | 0.2%                | 8,912,650               | 8,912,650               | -                       |
| FIRST RESERVE ENERGY ADVISORS      | 0.0%                | 1,169,943               | 739,162                 | (430,781)               |



## INVESTMENT PERFORMANCE

### June 30, 1997

|   | <u>ONE<br/>YEAR</u> | <u>TWO<br/>YEARS</u> | <u>THREE<br/>YEARS</u> | <u>FOUR<br/>YEARS</u> | <u>FIVE<br/>YEARS</u> | <u>TEN<br/>YEARS</u> |
|---|---------------------|----------------------|------------------------|-----------------------|-----------------------|----------------------|
| <b>TOTAL FUND</b>                         | <b>18.8</b>         | <b>17.7</b>          | <b>17.6</b>            | <b>13.9</b>           | <b>14.1</b>           | <b>11.1</b>          |
| <b>DOMESTIC EQUITY CONSOLIDATION</b>      | <b>27.6</b>         | <b>26.4</b>          | <b>25.7</b>            | <b>19.7</b>           | <b>19.6</b>           | <b>13.9</b>          |
| ALLIANCE CAPITAL - EQUITY                 | 38.2                | 30.8                 | 28.9                   | 21.9                  | 21.3                  | 15.1                 |
| ARK ASSET MANAGEMENT                      | 25.8                | 27.3                 | 25.3                   | 21.1                  | 21.2                  | -                    |
| CRAMER ROSENTHAL                          | 22.8                | 23.8                 | 22.9                   | -                     | -                     | -                    |
| GOUWS                                     | 22.1                | 20.2                 | 20.3                   | 17.5                  | 18.3                  | 14.2                 |
| MORGAN MULTI-MARKET I                     | 27.3                | 20.9                 | 17.6                   | 13.5                  | 16.3                  | -                    |
| MORGAN MULTI-MARKET II                    | 21.2                | 22.6                 | 18.3                   | -                     | -                     | -                    |
| PEREGRINE                                 | 20.2                | 24.3                 | 25.8                   | 20.8                  | 24.0                  | -                    |
| VALUE INDEX                               | 25.3                | 23.9                 | 17.1                   | -                     | -                     | -                    |
| EQUITY CORE                               | 29.3                | 27.8                 | 26.7                   | 19.8                  | 19.1                  | 14.0                 |
| <b>FIXED INCOME CONSOLIDATION</b>         | <b>8.7</b>          | <b>7.0</b>           | <b>8.8</b>             | <b>6.3</b>            | <b>7.5</b>            | <b>9.0</b>           |
| ALLIANCE FIXED                            | 9.8                 | 8.1                  | 9.4                    | 6.5                   | 8.1                   | 9.4                  |
| MORGAN CONSOLIDATION                      | 10.1                | 9.1                  | 10.4                   | 7.6                   | 8.6                   | -                    |
| MORGAN PRIV PLCM                          | 9.9                 | 8.5                  | 10.4                   | 7.8                   | 9.0                   | 10.0                 |
| MORGAN MORTGAGES                          | 9.9                 | 7.6                  | 9.4                    | 7.0                   | 8.1                   | 10.2                 |
| FIXED CORE                                | 8.2                 | 6.6                  | 8.5                    | 6.0                   | 7.1                   | 8.8                  |
| <b>INTERNATIONAL EQUITY CONSOLIDATION</b> | <b>16.2</b>         | <b>16.1</b>          | <b>11.8</b>            | <b>12.5</b>           | <b>13.2</b>           | <b>-</b>             |
| BANKERS INTERNATIONAL                     | 13.3                | 13.4                 | 9.5                    | 11.3                  | 13.0                  | -                    |
| MARTIN CURRIE                             | 17.1                | 18.2                 | -                      | -                     | -                     | -                    |
| ROWE PRICE                                | 17.1                | 16.3                 | -                      | -                     | -                     | -                    |
| WALTER SCOTT                              | 18.5                | 17.0                 | 12.9                   | 14.2                  | 13.1                  | -                    |
| <b>CASH</b>                               | <b>5.4</b>          | <b>7.2</b>           | <b>6.3</b>             | <b>5.4</b>            | <b>4.9</b>            | <b>5.6</b>           |
| <b>OTHER CONSOLIDATION</b>                | <b>19.1</b>         | <b>14.5</b>          | <b>15.4</b>            | <b>16.7</b>           | <b>12.2</b>           | <b>6.1</b>           |
| <b>FIRST RESERVE</b>                      | <b>4.7</b>          | <b>(19.7)</b>        | <b>(9.6)</b>           | <b>9.0</b>            | <b>8.9</b>            | <b>9.1</b>           |





# SYSTEM HOLDINGS June 30, 1997

|                                  | <u>COST</u>    | <u>MARKET VALUE</u> | <u>UNREALIZED<br/>GAIN/LOSS</u> |
|----------------------------------|----------------|---------------------|---------------------------------|
| <b>CASH</b>                      |                |                     |                                 |
| CASHACCOUNT                      | \$ 152,844,868 | \$ 152,844,868      | \$ -                            |
| <b>DOMESTIC EQUITY</b>           |                |                     |                                 |
| <b>ALLIANCE CAPITAL</b>          |                |                     |                                 |
| 1ST UN CORP COM                  | \$ 1,186,663   | \$ 1,156,250        | (\$ 30,413)                     |
| ABBOTT LAB COM                   | 1,794,760      | 2,469,750           | 674,990                         |
| ALLIED SIGNAL INC COM            | 3,941,466      | 5,880,000           | 1,938,534                       |
| ALTERA CORP COM                  | 398,998        | 858,500             | 459,502                         |
| AMER EXPRESS CO COM              | 1,594,142      | 2,309,500           | 715,358                         |
| AMER INTL GROUP INC COM          | 1,421,599      | 4,705,313           | 3,283,714                       |
| APACHE CORP COM                  | 2,710,267      | 2,671,500           | (38,767)                        |
| APPLIED MATERIALS INC COM        | 2,804,116      | 3,894,660           | 1,090,544                       |
| BAKER HUGHES INC COM             | 2,199,523      | 2,359,907           | 160,384                         |
| BJ SVCS CO COM                   | 1,007,089      | 1,281,638           | 274,548                         |
| BSTN SCIENTIFIC CORP COM         | 5,796,388      | 6,758,070           | 961,682                         |
| CAMPBELL SOUP CO COM             | 4,061,947      | 5,000,000           | 938,053                         |
| CHASE MANHATTAN CORP             | 3,769,556      | 4,880,277           | 1,110,721                       |
| CISCO SYS INC COM                | 5,827,243      | 9,531,750           | 3,704,507                       |
| COCA COLA CO COM                 | 2,291,775      | 2,754,000           | 462,225                         |
| COLGATE-PALMOLIVE CO COM         | 1,699,172      | 3,621,375           | 1,922,203                       |
| COLUMBIA/HCA HEALTHCARE CORP COM | 1,913,407      | 2,350,858           | 437,451                         |
| COMPAQ COMPUTER CORP COM         | 4,796,124      | 9,154,000           | 4,357,876                       |
| COX COMMUNICATIONS INC NEW CL A  | 1,993,416      | 2,424,000           | 430,584                         |
| DELL COMPUTER CORP COMM          | 3,442,547      | 6,341,598           | 2,899,051                       |
| FEDT DEPT STORES INC DEL COM     | 2,789,530      | 2,849,500           | 59,970                          |
| FIRST DATA CORP COM              | 3,673,178      | 4,771,558           | 1,098,380                       |
| GENERAL ELECTRIC CO              | 2,221,549      | 7,280,000           | 5,058,451                       |
| GILLETTE CO COM                  | 4,192,527      | 8,053,750           | 3,861,223                       |
| HARTFORD FINL SVCS GRP COM STK   | 2,057,443      | 2,317,000           | 259,557                         |
| HOME DEPOT INC COM               | 1,985,456      | 3,394,800           | 1,409,344                       |
| INTEL CORP CAP                   | 2,396,607      | 8,721,438           | 6,324,831                       |
| KOHL'S CORP COM                  | 127,035        | 142,425             | 15,390                          |
| KROGER CO COM                    | 2,290,733      | 2,407,000           | 116,267                         |
| LA QUINTA INNS INX COM           | 3,491,248      | 3,770,156           | 278,908                         |
| MBNA CORP COM                    | 2,542,006      | 5,255,688           | 2,713,682                       |
| MEDTRONIC INC COM                | 4,446,475      | 5,700,750           | 1,254,275                       |
| MERCK & CO INC COM               | 6,054,054      | 11,366,863          | 5,312,809                       |
| MERRILL LYNCH & CO INC COM       | 2,850,283      | 5,843,250           | 2,992,967                       |
| MICROSOFT CORP COM               | 2,133,613      | 2,249,475           | 115,863                         |
| MONSANTO CO COM                  | 1,957,169      | 2,346,879           | 389,710                         |
| MORGAN ST DEAN W. DISCOVER GRP   | 3,184,130      | 4,779,882           | 1,595,752                       |
| NAC RE CORP COM                  | 1,077,345      | 1,630,238           | 552,893                         |
| NETSCAPE COMMUNICATIONS CORP COM | 1,614,727      | 1,109,345           | (505,382)                       |
| ORACLE CORP COM                  | 2,238,004      | 5,818,313           | 3,580,309                       |
| OXFORD HLTH PLANS INC COM        | 2,086,827      | 3,171,350           | 1,084,523                       |
| PFIZER INC COM                   | 1,245,877      | 2,748,500           | 1,502,623                       |
| PHILIP MORRIS COMPANIES INC COM  | 2,863,757      | 6,084,375           | 3,220,619                       |
| PROCTER & GAMBLE CO COM          | 2,003,932      | 2,909,750           | 905,818                         |
| SCHERING-PLOUGH CORP COM         | 4,133,122      | 5,160,925           | 1,027,803                       |
| SOLETRON CORP COM                | 4,008,257      | 6,130,425           | 2,122,168                       |
| SUNBEAM CORP COM                 | 3,549,633      | 5,215,500           | 1,665,867                       |
| TELECOMMUNICATIONS INC           | 3,520,775      | 4,561,188           | 1,040,413                       |
| TRANSOCEAN OFFSHORE INC          | 902,747        | 1,045,800           | 143,053                         |





**SYSTEM HOLDINGS**  
**June 30, 1997**  
 (continued)

|                                  | <u>COST</u>           | <u>MARKET VALUE</u>   | <u>UNREALIZED<br/>GAIN/LOSS</u> |
|----------------------------------|-----------------------|-----------------------|---------------------------------|
| TRAVELERS GROUP INC COM          | \$ 2,112,975          | \$ 8,933,741          | \$ 6,820,767                    |
| TYCO INTL LTD                    | 4,184,409             | 5,759,734             | 1,575,325                       |
| UNITED STATES DOLLARS            | 4,619,468             | 4,619,468             | -                               |
| UNITED STATES DOLLARS            | (217,050)             | (217,050)             | -                               |
| US IND INC NEW COM               | 2,069,550             | 1,995,000             | (74,550)                        |
| USA WASTE SVCS INC COM           | 3,503,673             | 3,901,125             | 397,452                         |
| WALT DISNEY CO COM               | 3,022,127             | 5,256,375             | 2,234,248                       |
| <b>TOTAL</b>                     | <b>\$ 151,583,387</b> | <b>\$ 237,487,459</b> | <b>\$ 85,904,072</b>            |
| <b>ARK ASSETS</b>                |                       |                       |                                 |
| 1ST CHGO NBD CORP COM            | \$ 1,317,472          | \$ 1,954,150          | \$ 636,678                      |
| AETNA INC COM STK                | 3,393,068             | 5,128,988             | 1,735,920                       |
| ALBERTSON S INC COM              | 3,479,862             | 3,657,300             | 177,438                         |
| ALLIED SIGNAL INC COM            | 2,019,630             | 3,662,400             | 1,642,770                       |
| ALLSTATE CORP COM                | 2,999,338             | 5,942,200             | 2,942,862                       |
| ALUM CO AMER COM                 | 3,570,838             | 4,025,025             | 454,187                         |
| AMER GEN CORP COM                | 2,847,856             | 3,208,800             | 360,944                         |
| AMER HOME PROD CORP COM          | 2,284,334             | 2,899,350             | 615,016                         |
| AMERADA HESS CORP COM            | 3,078,744             | 3,467,069             | 388,324                         |
| AMP INC COM                      | 4,364,024             | 4,559,100             | 195,076                         |
| ANHEUSER-BUSCH COMPANIES INC     | 4,865,912             | 4,877,273             | 11,361                          |
| ARCHER-DANIELS-MIDLAND CO COM    | 4,916,982             | 6,201,133             | 1,284,151                       |
| AT & T CORP COM STK              | 4,076,153             | 3,618,398             | (457,755)                       |
| ATLC RICHFIELD CO COM            | 2,245,060             | 2,481,600             | 236,540                         |
| BAKER HUGHES INC COM             | 2,837,325             | 3,067,879             | 230,554                         |
| BANKERS TR N.Y. CORP COM         | 1,989,594             | 2,151,988             | 162,393                         |
| BRISTOL MYERS SQUIBB CO COM      | 778,003               | 1,709,100             | 931,097                         |
| BURL NORTHN SANTA FE CORP COM    | 4,220,585             | 4,673,500             | 452,915                         |
| BURL RES INC COM                 | 2,176,715             | 2,223,900             | 47,185                          |
| CHAMPION INTL CORP COM           | 2,679,753             | 3,326,050             | 646,298                         |
| CHASE MANHATTAN CORP NEW COM     | 1,631,974             | 2,242,132             | 610,158                         |
| CHRYSLER CORP COM                | 5,678,120             | 5,838,600             | 160,480                         |
| CHUBB CORP COM                   | 3,648,522             | 5,370,063             | 1,721,541                       |
| COLUMBIA/HCA HEALTHCARE CORP COM | 6,266,932             | 7,522,351             | 1,255,419                       |
| CPC INTL INC COM                 | 948,317               | 1,218,518             | 270,201                         |
| CSX CORP COM                     | 4,593,001             | 5,827,500             | 1,234,499                       |
| DIGITAL EQUIP CORP COM           | 1,701,984             | 1,360,781             | (341,203)                       |
| DILLARDS INC CL A COM            | 4,147,167             | 4,438,925             | 291,758                         |
| DRESSER IND INC COM              | 3,526,608             | 4,246,500             | 719,892                         |
| DU PONTE E I DE NEMOURS & CO COM | 3,262,078             | 4,941,975             | 1,679,897                       |
| EASTMAN KODAK CO COM             | 4,867,606             | 4,827,575             | (40,031)                        |
| ENRON CORP COM                   | 4,948,707             | 4,966,820             | 18,113                          |
| FEDT DEPT STORES INC DEL COM     | 3,098,796             | 3,721,725             | 622,929                         |
| FLUOR CORP COM                   | 1,863,552             | 1,661,129             | (202,423)                       |
| FORD MTR CO DEL COM              | 4,868,652             | 5,878,600             | 1,009,948                       |
| GANNETT CO INC COM               | 986,326               | 1,293,625             | 307,299                         |
| GAP INC COM                      | 3,100,873             | 3,665,913             | 565,039                         |
| GEN RE CORP COM                  | 5,103,973             | 6,388,200             | 1,284,227                       |
| GEORGIA-PACIFIC CORP COM         | 1,473,035             | 1,716,038             | 243,002                         |
| GOODYEAR TIRE & RUBBER CO COM    | 905,813               | 1,031,986             | 126,172                         |
| GRACE WR & CO DEL COM            | 254,204               | 253,575               | (629)                           |
| GTE CORP COM                     | 5,590,539             | 5,870,475             | 279,936                         |
| HERCULES INC VTG COM             | 1,630,603             | 1,642,113             | 11,509                          |
| HEWLETT-PACKARD CO COM           | 2,048,859             | 2,100,000             | 51,141                          |





# SYSTEM HOLDINGS

June 30, 1997

(continued)

|                                      | <u>COST</u>           | <u>MARKET VALUE</u>   | <u>UNREALIZED<br/>GAIN/LOSS</u> |
|--------------------------------------|-----------------------|-----------------------|---------------------------------|
| HUMANA INC COM                       | \$ 2,454,550          | \$ 2,624,688          | \$ 170,138                      |
| INTL BUSINESS MACH CORP CAP          | 5,896,058             | 9,268,675             | 3,372,617                       |
| JAMES RIV                            | 2,739,998             | 2,849,000             | 109,002                         |
| KIMBERLY-CLARK CORP COM              | 3,098,923             | 3,024,800             | (74,123)                        |
| LOCKHEED MARTIN CORP COM             | 4,902,291             | 5,706,266             | 803,976                         |
| LOEWS CORP COM                       | 2,963,495             | 4,205,250             | 1,241,755                       |
| MASCO CORP COM                       | 2,214,544             | 3,494,475             | 1,279,931                       |
| MAY DEPT STORES CO COM               | 3,036,602             | 3,737,475             | 700,873                         |
| MORGAN ST DEAN W. DISCOVER GRP INC   | 1,490,388             | 2,584,840             | 1,094,451                       |
| NEWMONT MNG CORP COM                 | 5,786,442             | 5,253,300             | (533,142)                       |
| NYNEX CORP COM                       | 4,499,678             | 5,750,444             | 1,250,766                       |
| OCCIDENTAL PETRO CORP COM            | 4,346,748             | 5,303,119             | 956,371                         |
| PPG IND INC COM                      | 3,387,469             | 4,405,875             | 1,018,406                       |
| RAYTHEON CO COM                      | 3,018,869             | 3,258,900             | 240,031                         |
| ROCKWELL INTL CORP NEW COM STK       | 2,118,041             | 2,085,600             | (32,441)                        |
| SBC COMMUNICATIONS INC COM           | 2,470,294             | 3,118,500             | 648,206                         |
| SEAGATE TECH COM                     | 2,218,709             | 2,181,975             | (36,734)                        |
| SEARS ROEBUCK & CO COM               | 4,777,236             | 5,396,500             | 619,264                         |
| TELE COMMUNICATIONS INC SER A TCI GR | 4,579,421             | 4,463,988             | (115,433)                       |
| TENNECO INC (NEW) COM STK            | 964,903               | 1,107,082             | 142,179                         |
| TEX UTILS CO COM                     | 5,035,587             | 4,504,360             | (531,227)                       |
| TEXACO INC COM                       | 1,206,138             | 1,348,500             | 142,362                         |
| U S W INC COM-MEDIA GROUP COM        | 1,634,746             | 1,615,950             | (18,796)                        |
| UN PAC RES GROUP INC COM             | 3,242,146             | 3,019,825             | (222,321)                       |
| UNITED HEALTHCARE CORP COM           | 1,173,443             | 1,586,000             | 412,557                         |
| UNITED STATES DOLLARS                | 14,501,752            | 14,501,752            | -                               |
| UNITED STATES DOLLARS                | (1,401,590)           | (1,401,590)           | -                               |
| UNITED STATES DOLLARS                | 2,581,252             | 2,581,252             | -                               |
| UNOCAL CORP COM                      | 4,675,478             | 4,695,600             | 20,122                          |
| UNUM CORP COM                        | 688,840               | 1,326,650             | 637,810                         |
| VIACOM COM CL B                      | 3,247,583             | 3,177,000             | (70,583)                        |
| WASTE MGMT INC NEW COM STK           | 2,643,561             | 3,032,600             | 389,039                         |
| WELLS FARGO & CO COM                 | 3,261,026             | 3,153,150             | (107,876)                       |
| XEROX CORP COM                       | 3,099,811             | 5,639,563             | 2,539,751                       |
| <b>TOTAL</b>                         | <b>\$ 248,841,919</b> | <b>\$ 289,461,680</b> | <b>\$ 40,619,761</b>            |
| <b>CRAMER ROSENTHAL MCGLYNN</b>      |                       |                       |                                 |
| AEP IND INC COM                      | \$ 997,031            | \$ 796,000            | (\$ 201,031)                    |
| ALLERGAN INC COM                     | 2,803,811             | 2,567,228             | (236,583)                       |
| AMBASSADOR APT INC COM               | 512,931               | 771,125               | 258,194                         |
| ASCENT ENTMT GROUP INC COM           | 407,466               | 510,704               | 103,239                         |
| BALL CORP COM                        | 1,117,265             | 1,268,616             | 151,352                         |
| BROOKLYN UN GAS CO                   | 2,590,725             | 2,559,075             | (31,650)                        |
| COASTAL CORP COM                     | 3,562,114             | 4,467,708             | 905,594                         |
| COMCAST CORP CL A SPL COM            | 2,797,429             | 3,623,063             | 825,633                         |
| COMSAT CORP SER 1 COM                | 2,148,813             | 2,726,589             | 577,775                         |
| DIAL CORP (NEW) COM STK              | 2,163,819             | 2,275,000             | 111,181                         |
| DOLE FOOD INC COM                    | 2,725,814             | 2,992,500             | 266,686                         |
| ELSAG BAILEY PROC AUTOMA COM         | 2,206,639             | 1,960,613             | (246,027)                       |
| FOREST OIL CORP COM NEW              | 1,539,438             | 1,901,967             | 362,529                         |
| FORT HOWARD                          | 3,843,611             | 4,566,375             | 722,764                         |
| GENERAL INSTR EXCH FOR GEN           | 3,502,991             | 3,603,175             | 100,184                         |
| GLENDALE FED BK                      | 1,453,743             | 2,764,025             | 1,310,282                       |
| GULFSTREAM AEROSPACE CORP            | 214,181               | 263,250               | 49,069                          |





## SYSTEM HOLDINGS

June 30, 1997

(continued)

|                                  | <u>COST</u>           | <u>MARKETVALUE</u>    | <u>UNREALIZED<br/>GAIN/LOSS</u> |
|----------------------------------|-----------------------|-----------------------|---------------------------------|
| HANCOCK JOHN BK & THRIFT OPP     | \$ 2,602,489          | \$ 3,929,438          | \$ 1,326,948                    |
| JOHNS MANVILLE CORP COM STK      | 1,521,278             | 1,820,229             | 298,952                         |
| JOHNSON CTL INC COM              | 2,229,602             | 2,455,508             | 225,906                         |
| LONG ISLAND LTG CO COM           | 2,258,811             | 2,297,700             | 38,890                          |
| M & F WORLDWIDE CORP COM STK     | 993,389               | 986,125               | (7,264)                         |
| MACMILLAN BLOEDEL LTDCOM         | 2,482,754             | 2,270,125             | (212,629)                       |
| MALLINCKRODT INC NEW COM         | 2,198,197             | 2,321,800             | 123,603                         |
| MAPCO INC COM                    | 2,254,939             | 2,220,750             | (34,189)                        |
| MASCOTECH INC COM                | 3,077,664             | 4,488,125             | 1,410,461                       |
| MEYER FRED INC                   | 3,874,605             | 5,856,137             | 1,981,532                       |
| NEWMONT MNG CORP COM             | 2,683,439             | 2,710,500             | 27,061                          |
| OCEAN ENERGY INC COM STK         | 604,265               | 2,742,625             | 2,138,360                       |
| OWENS ILL INC COM NEW            | 3,900,763             | 6,987,400             | 3,086,637                       |
| PENN TRAFFIC CO COM NEW          | 1,935,304             | 394,538               | (1,540,767)                     |
| RAYCHEM CORP COM                 | 4,088,868             | 5,540,938             | 1,452,069                       |
| SHOPKO STORES INC COM            | 1,181,917             | 1,201,050             | 19,133                          |
| STANLEY WK COM                   | 1,806,087             | 2,214,000             | 407,913                         |
| TRACOR INC NEW COM NEW           | 1,776,195             | 2,427,075             | 650,880                         |
| TRIMAS CORP COM                  | 1,142,994             | 1,361,250             | 218,256                         |
| TRIZEC HAN CORP                  | 2,929,144             | 3,296,966             | 367,822                         |
| TRUE N. COMMUNICATIONS           | 1,886,409             | 2,232,450             | 346,041                         |
| TRW INC COM                      | 1,272,153             | 1,886,158             | 614,005                         |
| TUPPERWARE CORP COM              | 3,684,981             | 3,211,750             | (473,231)                       |
| UCAR INTL INC COM                | 2,369,039             | 3,330,600             | 961,561                         |
| UNITED STATES DOLLARS            | 7,574,756             | 7,574,756             | -                               |
| UNITED STATES DOLLARS            | (3,942,512)           | (3,942,512)           | -                               |
| UNITED STATES DOLLARS            | 2,746,512             | 2,746,512             | -                               |
| WALTER INDS INC COM              | 1,776,995             | 2,177,500             | 400,505                         |
| WELLPOINT HLTH NETWORKS INC CL A | 1,966,153             | 2,077,679             | 111,525                         |
| WESTINGHOUSE ELEC CORP           | 2,743,955             | 4,134,750             | 1,390,795                       |
| <b>TOTAL</b>                     | <b>\$ 102,208,967</b> | <b>\$ 122,568,932</b> | <b>\$ 20,359,966</b>            |
| <b>GOUWS CAPITAL</b>             |                       |                       |                                 |
| AMER ELEC PWR CO INC COM         | \$ 2,603,036          | \$ 2,935,590          | \$ 332,554                      |
| AMER GREETINGS CORP CL A COM     | 1,163,175             | 1,670,625             | 507,450                         |
| AMERICAN FINCL GROUP             | 106,005               | 132,138               | 26,133                          |
| AMOCO CORP COM                   | 871,121               | 1,304,055             | 432,934                         |
| AMP INC COM                      | 2,530,950             | 2,922,500             | 391,550                         |
| ANGELICA CORP COM                | 2,305,270             | 1,750,000             | (555,270)                       |
| ARMCO INC COM                    | 1,080,827             | 381,200               | (699,627)                       |
| ATLC RICHFIELD CO COM            | 1,066,830             | 1,410,000             | 343,170                         |
| BALL CORP COM                    | 1,541,675             | 1,803,720             | 262,045                         |
| BASSETT FURNITURE IND INC COM    | 1,112,450             | 1,415,600             | 303,150                         |
| BROWN GROUP INC COM              | 1,570,461             | 1,308,090             | (262,371)                       |
| BROWNING-FERRIS IND INC COM      | 1,382,259             | 1,662,500             | 280,241                         |
| CALGON CARBON CORP COM           | 2,024,645             | 2,497,500             | 472,855                         |
| CALIBER SYS INC COM              | 754,325               | 745,000               | (9,325)                         |
| CLAYTON HOMES INC COM            | 1,815,775             | 1,868,750             | 52,975                          |
| COGNIZANT CORP COM               | 911,627               | 1,215,000             | 303,373                         |
| COOPER TIRE & RUBBER CO          | 2,474,125             | 2,640,000             | 165,875                         |
| CROSS A T CO CL A COM            | 950,816               | 892,500               | (58,316)                        |
| CYPRUS AMAX MIN CO COM STK       | 2,735,155             | 2,817,500             | 82,345                          |
| DELUXE CORP COM                  | 1,879,502             | 2,047,500             | 167,998                         |
| DIGITAL EQUIP CORP COM           | 1,324,438             | 1,063,110             | (261,328)                       |





# SYSTEM HOLDINGS June 30, 1997 (continued)

|                                 | COST         | MARKET VALUE | UNREALIZED<br>GAIN/LOSS |
|---------------------------------|--------------|--------------|-------------------------|
| DILLARDS INC CL A COM           | \$ 2,111,050 | \$ 2,423,750 | \$ 312,700              |
| DOW CHEM CO COM                 | 1,984,775    | 2,171,875    | 187,100                 |
| DOW JONES & CO INC COM          | 1,638,100    | 1,808,415    | 170,315                 |
| DUN & BRADSTREET CORP COM       | 952,425      | 1,181,250    | 228,825                 |
| E G & G INC COM                 | 1,161,075    | 1,462,500    | 301,425                 |
| EASTMAN CHEM CO                 | 1,649,325    | 1,905,000    | 255,675                 |
| EASTN ENTERPRISES COM           | 2,345,388    | 2,428,090    | 82,702                  |
| ECHLIN INC COM                  | 2,226,320    | 2,520,000    | 293,680                 |
| ELECTR DATA SYS CORP NEW COM    | 375,600      | 411,870      | 36,270                  |
| EVANS BOB FARM INC COM          | 1,778,765    | 2,032,440    | 253,675                 |
| FLEETWOOD ENTERPRISES INC COM   | 1,279,825    | 1,490,600    | 210,775                 |
| FLUOR CORP COM                  | 1,038,225    | 1,103,740    | 65,515                  |
| FORD MTR CO DEL COM             | 1,471,038    | 2,090,000    | 618,963                 |
| GEN RE CORP COM                 | 1,270,063    | 1,638,000    | 367,937                 |
| GENUINE PT CO COM               | 1,880,322    | 2,455,938    | 575,616                 |
| GERBER SCIENTIFIC INC COM       | 1,192,217    | 1,530,625    | 338,408                 |
| GLATFELTER P H CO COM           | 2,238,325    | 2,600,000    | 361,675                 |
| GOODYEAR TIRE & RUBBER CO COM   | 929,856      | 1,582,800    | 652,944                 |
| GREAT LAKES CHEM CORP COM       | 1,515,475    | 1,833,125    | 317,650                 |
| GTE CORP COM                    | 2,667,718    | 2,851,875    | 184,158                 |
| HECLA MINING CO COM \$.25 PAR   | 1,011,363    | 434,960      | (576,403)               |
| HOMESTAKE MNG CO CAP            | 2,959,217    | 2,743,020    | (216,197)               |
| HSB GROUP INC COMMON STK        | 1,745,300    | 2,092,300    | 347,000                 |
| INTL MULTIFOODS CORP COM        | 1,020,450    | 1,256,250    | 235,800                 |
| JOSTENS INC COM                 | 1,346,794    | 1,695,950    | 349,156                 |
| KAMAN CORP CL A COM             | 1,189,965    | 1,691,250    | 501,285                 |
| LAWTER INTL INC COM             | 2,060,064    | 2,272,500    | 212,436                 |
| LONGVIEW FIBRE CO COM           | 1,627,900    | 1,662,500    | 34,600                  |
| MFC DUFF & PHELPS UTILS INC     | 1,293,071    | 1,312,500    | 19,429                  |
| MOORE CORP LTD                  | 1,672,858    | 1,668,125    | (4,733)                 |
| NALCO CHEM CO COM               | 1,598,940    | 1,931,250    | 332,310                 |
| NASHUA CORP COM                 | 2,255,080    | 1,090,763    | (1,164,318)             |
| NATL FUEL GAS CO COM            | 470,736      | 738,091      | 267,355                 |
| NYNEX CORP COM                  | 685,575      | 863,430      | 177,855                 |
| OCCIDENTAL PETRO CORP COM       | 1,492,412    | 1,503,720    | 11,308                  |
| OSHKOSH B GOSH INC CL A COM     | 300,144      | 435,000      | 134,856                 |
| PALL CORP COM                   | 1,195,100    | 1,278,750    | 83,650                  |
| PENNEY J C CO INC COM           | 2,198,070    | 2,609,350    | 411,280                 |
| PHILLIPS-VAN HEUSEN CORP COM    | 2,946,656    | 2,850,000    | (96,656)                |
| QUAKER ST CORP CAP              | 1,370,375    | 1,448,750    | 78,375                  |
| QUESTAR CORP COM                | 1,744,413    | 2,220,625    | 476,212                 |
| RJR NABISCO HLDGS CORP          | 962,564      | 1,155,000    | 192,436                 |
| ROADWAY EXPRESS INC             | 1,045,880    | 1,402,500    | 356,620                 |
| S JERSEY IND INC COM            | 665,767      | 826,499      | 160,732                 |
| SAFECO CORP COM                 | 1,691,281    | 2,334,350    | 643,069                 |
| SAFETY-KLEEN CORP COM           | 2,267,861    | 2,531,250    | 263,389                 |
| SOUTHWESTERN EXCH               | 807,173      | 1,179,360    | 372,187                 |
| STANHOME INC VTG COM            | 2,364,364    | 2,630,000    | 265,636                 |
| STD PROD CO COM                 | 882,763      | 1,010,000    | 127,237                 |
| SUN CO INC COM                  | 3,027,683    | 3,382,348    | 354,665                 |
| TOYS R US INC (HOLDING COMPANY) | 1,064,824    | 1,400,000    | 335,176                 |
| USW INC COM-MEDIA GROUP COM     | 476,548      | 607,500      | 130,952                 |
| US W COMMUNICATIONS GROUP       | 1,236,562    | 1,884,350    | 647,788                 |
| USX - MARATHON GROUP COM NEW    | 1,102,293    | 1,443,750    | 341,457                 |
| WEINGARTEN RLTY INVESTORS       | 2,179,135    | 2,535,000    | 355,865                 |
| WEST CO INC COM \$.25 PAR       | 1,388,721    | 1,717,500    | 328,779                 |





**SYSTEM HOLDINGS**  
**June 30, 1997**  
 (continued)

|                                   | <u>COST</u>           | <u>MARKET VALUE</u>   | <u>UNREALIZED<br/>GAIN/LOSS</u> |
|-----------------------------------|-----------------------|-----------------------|---------------------------------|
| WEYERHAEUSER CO COM               | \$ 1,934,018          | \$ 2,340,000          | \$ 405,982                      |
| UNITED STATES DOLLARS             | 8,462,435             | 8,462,435             | -                               |
| UNITED STATES DOLLARS             | (1,389,401)           | (1,389,401)           | -                               |
| <b>TOTAL</b>                      | <b>\$ 126,265,305</b> | <b>\$ 141,256,294</b> | <b>\$ 14,990,989</b>            |
| <b>MORGAN MULTI MARKET I</b>      |                       |                       |                                 |
| JP MORGAN MULTI MKT               | \$ 33,985,558         | \$ 46,911,039         | \$ 12,925,481                   |
| <b>TOTAL</b>                      | <b>\$ 33,985,558</b>  | <b>\$ 46,911,039</b>  | <b>\$ 12,925,481</b>            |
| <b>MORGAN MULTIMARKET II</b>      |                       |                       |                                 |
| JP MORGAN MULTI MKT II            | \$ 30,176,913         | \$ 36,173,779         | \$ 5,996,866                    |
| <b>TOTAL</b>                      | <b>\$ 30,176,913</b>  | <b>\$ 36,173,779</b>  | <b>\$ 5,996,866</b>             |
| <b>PEREGRINE</b>                  |                       |                       |                                 |
| ADR BOUYGUES OFFSHORE S A         | \$ 2,654,663          | \$ 2,577,500          | (\$ 77,163)                     |
| ADR ELAN PLC                      | 1,517,770             | 3,669,232             | 2,151,462                       |
| ADVANCED DIGITAL INFORMATION CORP | 2,709,800             | 2,570,325             | (139,475)                       |
| AMER PWR CONVERSION CORP COM      | 2,113,352             | 2,420,600             | 307,248                         |
| AMER STD COS INC DEL COM          | 674,203               | 751,800               | 77,597                          |
| AMERIN CORP COM                   | 2,503,843             | 2,929,400             | 425,557                         |
| AMRESKO INC COM                   | 3,467,541             | 3,526,000             | 58,459                          |
| APPLIED PWR INC CL A COM          | 2,623,200             | 3,236,888             | 613,688                         |
| AUTODESK INC COM                  | 2,644,512             | 3,532,366             | 887,855                         |
| BERG ELECTRS CORP COM             | 2,095,190             | 2,662,932             | 567,741                         |
| BIOSITE DIAGNOSTICS INC COM       | 1,440,000             | 1,078,125             | (361,875)                       |
| BMC IND INC MINN COM              | 4,095,788             | 4,760,750             | 664,962                         |
| BORDERS GROUP INC COM STK         | 1,602,805             | 3,850,350             | 2,247,545                       |
| CALIFORNIA FED BK A SVGS          | 163,708               | 265,275               | 101,567                         |
| CASE CORP COM                     | 1,167,704             | 2,603,475             | 1,435,771                       |
| CFM TECHNOLOGIES INC COM          | 1,727,246             | 1,945,350             | 218,104                         |
| CLAIRE'S STORES INC COM           | 1,389,312             | 1,701,000             | 311,688                         |
| COACH USA INC COM                 | 2,771,969             | 2,775,729             | 3,760                           |
| COOPER CAMERON CORP               | 3,754,643             | 5,324,825             | 1,570,182                       |
| CORNELL CORRECTIONS INC COM       | 1,846,616             | 2,583,900             | 737,284                         |
| CYPRESS SEMICONDUCTOR CORP COM    | 3,243,655             | 3,523,500             | 279,845                         |
| DANKA BUSINESS SYS PLC            | 3,590,542             | 3,576,563             | (13,979)                        |
| DATA GEN CORP COM                 | 2,038,341             | 2,540,200             | 501,859                         |
| DIME BANCORP INC NEW COM          | 3,227,923             | 4,924,500             | 1,696,577                       |
| DISCREET LOGIC INC COM            | 2,134,956             | 2,475,000             | 340,044                         |
| EVEREST REINS HLDGS INC COM STK   | 2,467,674             | 4,830,288             | 2,362,614                       |
| EVI CORP COM                      | 1,437,518             | 3,544,800             | 2,107,282                       |
| FOREST LAB INC COM                | 2,566,125             | 3,165,787             | 599,662                         |
| FPA MED MGMT INC COM              | 2,270,100             | 2,288,164             | 18,064                          |
| FURNITURE BRANDS INTL INC         | 2,317,187             | 2,487,750             | 170,563                         |
| GENESIS HLTH VENTURES INC COM     | 1,276,689             | 2,144,813             | 868,123                         |
| GENZYME CORP COM                  | 4,568,994             | 5,269,725             | 700,731                         |
| GTECH HLDG CORP COM               | 3,557,011             | 3,928,050             | 371,039                         |
| GULFSTREAM AEROSPACE CORP         | 4,302,845             | 4,960,800             | 657,955                         |
| HCC INS HLDG INC                  | 2,773,845             | 2,786,123             | 12,278                          |
| HOMESIDE INC COM                  | 1,500,000             | 2,187,500             | 687,500                         |
| IMC MORTGAGE CO COM               | 2,235,675             | 2,997,488             | 761,813                         |





# SYSTEM HOLDINGS

June 30, 1997

(continued)

|                                  | COST                  | MARKET VALUE            | UNREALIZED<br>GAIN/LOSS |
|----------------------------------|-----------------------|-------------------------|-------------------------|
| JDA SOFTWARE GROUP INC COM       | \$ 1,777,730          | \$ 2,552,550            | \$ 774,820              |
| LEAR CORP COM STK PAR \$0.01     | 1,911,860             | 2,724,625               | 812,765                 |
| LOMAK PETE INC COM               | 2,139,382             | 3,372,500               | 1,233,118               |
| LUCAS VARIETY PLC                | 2,910,450             | 2,894,858               | (15,592)                |
| MENTOR CORP COM                  | 2,183,593             | 2,506,275               | 322,682                 |
| MICHAELS STORES INC COM VALUE    | 2,801,273             | 2,830,583               | 29,310                  |
| NABORS IND INC COM               | 2,478,414             | 3,375,000               | 896,586                 |
| NOBLE DRILLING CORP COM          | 2,901,801             | 4,203,000               | 1,301,199               |
| OMNIQUIP INTL INC COM            | 1,830,660             | 2,913,750               | 1,083,090               |
| PARKER DRILLING CO COM           | 2,048,634             | 3,143,925               | 1,095,291               |
| PERFORMANCE FOOD GROUP CO COM    | 2,810,010             | 2,916,900               | 106,890                 |
| PHILIP SERVICES CORP COM STK     | 1,216,359             | 2,229,492               | 1,013,133               |
| PHYSICIAN SALES & SVC INC COM    | 1,354,422             | 2,017,800               | 663,378                 |
| PROTEIN DESIGN LABS INC COM      | 3,220,596             | 2,878,500               | (342,096)               |
| QUORUM HLTH GROUP INC COM        | 2,082,278             | 2,706,275               | 623,997                 |
| READ-RITE CORP COM               | 2,135,736             | 1,690,875               | (444,861)               |
| REXALL SUNDOWN INC COM           | 845,432               | 1,310,400               | 464,968                 |
| ROWAN COMPANIES INC COM          | 3,217,709             | 3,889,806               | 672,097                 |
| SANTA FE INTL CORP COM STK       | 2,140,136             | 2,312,000               | 171,864                 |
| SEPRACOR INC COM                 | 2,824,697             | 3,311,680               | 486,983                 |
| SPEEDFAM INTL INC COM            | 2,814,568             | 3,106,775               | 292,207                 |
| SPINE TECH INC COM               | 954,541               | 1,440,450               | 485,909                 |
| STAGE STORES INC COM             | 2,231,023             | 3,046,175               | 815,152                 |
| SUN CO INC COM                   | 3,333,876             | 3,431,700               | 97,824                  |
| SWIFT TRANSN INC COM             | 1,877,858             | 2,522,250               | 644,392                 |
| SYMANTEC CORP COM                | 3,353,125             | 3,426,150               | 73,025                  |
| TECH SOLUTIONS CO COM            | 1,613,099             | 2,393,700               | 780,601                 |
| TITANIUM METALS CORP COM         | 3,208,289             | 4,073,300               | 865,011                 |
| TOWER AUTOMOTIVE INC COM         | 2,111,083             | 3,139,000               | 1,027,917               |
| TRANSOCEAN OFFSHORE INC          | 1,497,601             | 2,520,088               | 1,022,487               |
| TRIGEN ENERGY CORP COM           | 1,165,800             | 1,427,500               | 261,700                 |
| UNITED STATES DOLLARS            | 2,458,510             | 2,458,510               | -                       |
| UNITED STATES DOLLARS            | (442,856)             | (442,856)               | -                       |
| UNITED STATES DOLLARS            | 5,809,893             | 5,809,893               | -                       |
| UNIVISION COMMUNICATIONS INC     | 2,152,675             | 2,793,525               | 640,850                 |
| USA WASTE SVCS INC COM           | 2,718,999             | 4,901,513               | 2,182,513               |
| USFREIGHTWAYS CORP COM           | 2,282,346             | 2,258,888               | (23,458)                |
| VANS INC COM                     | 2,304,028             | 2,985,675               | 681,647                 |
| VARCO INTL INC CAP               | 1,379,146             | 2,596,125               | 1,216,979               |
| VENCOR INC COM                   | 2,054,935             | 2,594,150               | 539,215                 |
| VISIO CORP COM STK               | 775,731               | 1,417,050               | 641,319                 |
| WARNACO GROUP INC CL A COM       | 3,395,618             | 4,497,563               | 1,101,944               |
| WATSCO CL A EXCH FOR WATSCO COMM | 3,121,813             | 3,102,500               | (19,313)                |
| WATSON PHARMACEUTICALS INC COM   | 3,352,420             | 3,494,075               | 141,655                 |
| WHOLE FOODS MKT INC COM          | 1,899,664             | 3,173,375               | 1,273,711               |
| <b>TOTAL</b>                     | <b>\$ 190,727,902</b> | <b>\$ 240,344,736</b>   | <b>\$ 49,616,834</b>    |
| <b>STATE STREET EQUITY CORE</b>  |                       |                         |                         |
| STATE STREET WILSHIRE 5000       | \$ 979,307,801        | \$ 1,151,900,893        | \$ 172,593,093          |
| <b>TOTAL</b>                     | <b>\$ 979,307,801</b> | <b>\$ 1,151,900,893</b> | <b>\$ 172,593,093</b>   |



**SYSTEM HOLDINGS**  
**June 30, 1997**  
 (continued)

|                                    | <u>COST</u>           | <u>MARKET VALUE</u>   | <u>UNREALIZED<br/>GAIN/LOSS</u> |
|------------------------------------|-----------------------|-----------------------|---------------------------------|
| <b>STATE STREET S&amp;P VALUE</b>  |                       |                       |                                 |
| STATE STREET LARGE VALUE           | \$ 99,262,185         | \$ 115,595,860        | \$ 16,332,676                   |
| <b>TOTAL</b>                       | <b>\$ 99,262,185</b>  | <b>\$ 115,595,860</b> | <b>\$ 16,332,676</b>            |
| <b>STATE STREET S&amp;P GROWTH</b> |                       |                       |                                 |
| STATE STREET LARGE GROWTH          | \$ 232,094,780        | \$ 271,357,561        | \$ 39,262,782                   |
| <b>TOTAL</b>                       | <b>\$ 232,094,780</b> | <b>\$ 271,357,561</b> | <b>\$ 39,262,782</b>            |
| <b>FIXED INCOME</b>                |                       |                       |                                 |
| <b>ALLIANCE CAPITAL</b>            |                       |                       |                                 |
| COMP NAV PEREZ COMPAN              | \$ 8,205,000          | \$ 8,320,000          | \$ 115,000                      |
| CORPORACION ANDINA DE FOMENTO      | 6,025,603             | 6,054,041             | 28,438                          |
| CROATIA FLTG RT BD                 | 9,763,750             | 9,718,800             | (44,950)                        |
| FHLMC GROUP #E00485 7.0 MTG        | 6,370,846             | 6,400,849             | 30,003                          |
| FHLMC GROUP #G10564 7.0 MTG        | 5,423,544             | 5,506,404             | 82,860                          |
| FNMA POOL #250554 6.5 GTD MTG      | 9,367,441             | 9,438,029             | 70,589                          |
| FNMA POOL #303890 7.0 GTD MTG      | 5,511,780             | 5,539,323             | 27,543                          |
| FNMA POOL #367004 6.5 GTD MTG      | 6,302,617             | 6,339,002             | 36,385                          |
| FNMA POOL #390178 7.0 GTD MTG      | 5,381,794             | 5,426,760             | 44,965                          |
| GNMA POOL #425423 SER 2026 7.5     | 5,499,647             | 5,545,428             | 45,781                          |
| GNMA POOL #393252                  | 6,473,740             | 6,456,622             | (17,118)                        |
| GNMA POOL #393253                  | 1,783,068             | 1,788,638             | 5,569                           |
| MC CUERNAVACA TR 9.25              | 3,441,211             | 3,441,211             | -                               |
| PVTPL PETROZUATA FIN INC           | 6,000,000             | 6,108,540             | 108,540                         |
| PVTPL ST GEORGE FDG CO             | 7,000,000             | 7,122,710             | 122,710                         |
| QUE PROV CDA 7.125 BD              | 4,023,315             | 4,232,520             | 209,205                         |
| RAS LAFFAN GAS 8.294 BD            | 9,326,706             | 9,461,250             | 134,545                         |
| TIME WARNER 9.15 BD                | 7,497,136             | 7,454,500             | (42,636)                        |
| US TREAS 6.5 BD                    | 17,630,430            | 17,571,050            | (59,380)                        |
| UST 6.125 NT DUE 8-31-1998         | 8,529,638             | 8,571,375             | 41,737                          |
| UNITED STATES DOLLARS              | 35,737,814            | 35,737,814            | -                               |
| UNITED STATES DOLLARS              | 50,734                | 50,734                | -                               |
| US TREAS 5.875 NT DUE 3-31-1999    | 3,949,561             | 3,890,250             | (59,311)                        |
| US TREAS 6.25 NT DUE 4-30-2001     | 350,273               | 349,017               | (1,257)                         |
| US TREAS 6.625 BD DUE 2-15-2027    | 16,043,443            | 16,144,260            | 100,817                         |
| US TREAS 6.75 NT DUE 4-30-2000     | 3,384,635             | 3,343,296             | (41,339)                        |
| US TREAS 6.875 NT DUE 5-15-2006    | 22,272,825            | 22,610,277            | 337,452                         |
| US TREAS 6.375 NT DUE 5-15-1999    | 5,932,266             | 5,879,250             | (53,016)                        |
| <b>TOTAL</b>                       | <b>\$ 227,278,817</b> | <b>\$ 228,501,948</b> | <b>\$ 1,223,131</b>             |
| <b>MORGAN GUARANTY - MORTGAGES</b> |                       |                       |                                 |
| JP MORGAN MORTGAGES                | \$ 240,588,554        | \$ 270,539,432        | \$ 29,950,878                   |
| UNITED STATES DOLLARS              | 1,063                 | 1,063                 | -                               |
| <b>TOTAL</b>                       | <b>\$ 240,589,617</b> | <b>\$ 270,540,494</b> | <b>\$ 29,950,878</b>            |





**SYSTEM HOLDINGS**  
**June 30, 1997**  
(continued)

|   | <u>COST</u>            | <u>MARKET VALUE</u>     | <u>UNREALIZED<br/>GAIN/LOSS</u> |
|---|------------------------|-------------------------|---------------------------------|
| <b>MORGAN GUARANTY - PRIVATE PLACEMENTS</b> |                        |                         |                                 |
| JP MORGAN PRIV PLACEMENTS                   | \$ 90,811,088          | \$ 101,354,259          | \$ 10,543,171                   |
| UNITED STATES DOLLARS                       | 4,501                  | 4,501                   | -                               |
| <b>TOTAL</b>                                | <b>\$ 90,815,589</b>   | <b>\$ 101,358,760</b>   | <b>\$ 10,543,171</b>            |
| <br><b>STATE STREET FIXED CORE</b>          |                        |                         |                                 |
| STATE STREET BOND MKT INDEX FD              | \$1,138,914,562        | \$ 1,174,301,800        | \$ 35,387,238                   |
| <b>TOTAL</b>                                | <b>\$1,138,914,562</b> | <b>\$ 1,174,301,800</b> | <b>\$ 35,387,238</b>            |
| <br><b>INTERNATIONAL EQUITY</b>             |                        |                         |                                 |
| <b>WALTER SCOTT</b>                         |                        |                         |                                 |
| FOREIGN ASSETS HELD AT TNT-LDN              | \$ 112,263,942         | \$ 144,960,959          | \$ 32,697,017                   |
| UNITED STATES DOLLARS                       | 4,579                  | 4,579                   | -                               |
| <b>TOTAL</b>                                | <b>\$ 112,268,521</b>  | <b>\$ 144,965,538</b>   | <b>\$ 32,697,017</b>            |
| <br><b>ROWE PRICE FLEMING</b>               |                        |                         |                                 |
| FOREIGN ASSETS HELD AT TNT-LDN              | \$ 109,767,336         | \$ 134,671,877          | \$ 24,904,541                   |
| UNITED STATES DOLLARS                       | 4,595                  | 4,595                   | -                               |
| <b>TOTAL</b>                                | <b>\$ 109,771,931</b>  | <b>\$ 134,676,472</b>   | <b>\$ 24,904,541</b>            |
| <br><b>MARTIN CURRIE</b>                    |                        |                         |                                 |
| FOREIGN ASSETS HELD AT TNT-LDN              | \$ 114,308,523         | \$ 136,367,667          | \$ 22,059,144                   |
| UNITED STATES DOLLARS                       | 4,579                  | 4,579                   | -                               |
| <b>TOTAL</b>                                | <b>\$ 114,313,102</b>  | <b>\$ 136,372,246</b>   | <b>\$ 22,059,144</b>            |
| <br><b>BANKERS TRUST INTERNATIONAL</b>      |                        |                         |                                 |
| BANKERS TR INTL EQTY INDEX FD               | \$ 79,984,304          | \$ 135,850,159          | \$ 55,865,854                   |
| <b>TOTAL</b>                                | <b>\$ 79,984,304</b>   | <b>\$ 135,850,159</b>   | <b>\$ 55,865,854</b>            |
| <br><b>OTHER</b>                            |                        |                         |                                 |
| <b>FAME</b>                                 |                        |                         |                                 |
| HARDWOOD MANAGEMENT INC                     | \$ 1,156,292           | \$ 1,156,292            | \$ -                            |
| ACORN CO MORTGAGE NOTE                      | 1,103,633              | 1,103,633               | -                               |
| KATINA FOODS INC 6.25% PROM                 | 2,185,944              | 2,185,944               | -                               |
| SPENCER PRESS OF MAINE INC                  | 4,366,439              | 4,366,439               | -                               |
| UNITED STATES DOLLARS                       | 100,342                | 100,342                 | -                               |
| <b>TOTAL</b>                                | <b>\$ 8,912,650</b>    | <b>\$ 8,912,650</b>     | <b>\$ -</b>                     |



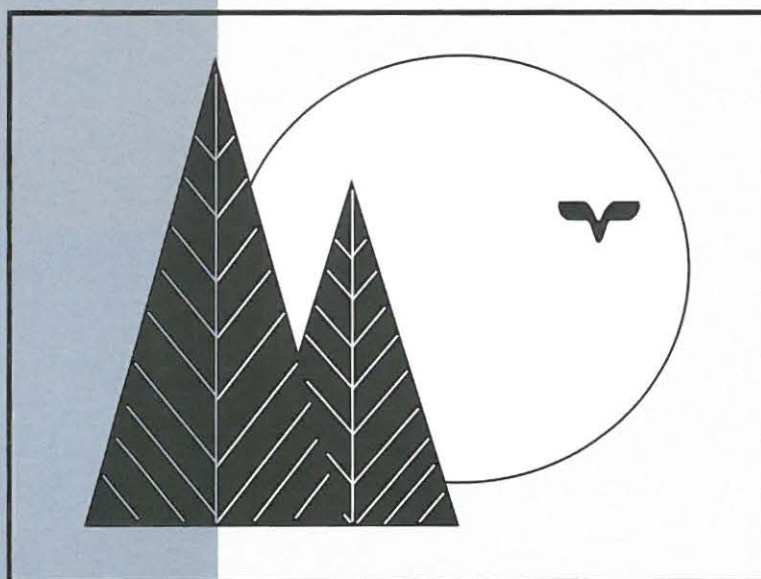
**SYSTEM HOLDINGS**  
**June 30, 1997**  
(continued)

|                                | <u>COST</u>         | <u>MARKET VALUE</u> | <u>UNREALIZED<br/>GAIN/LOSS</u> |
|--------------------------------|---------------------|---------------------|---------------------------------|
| <b>FIRST RESERVE</b>           |                     |                     |                                 |
| ESCO BOSTON 86-1 LTD PTSHIP    | \$ 1,156,805        | \$ 557,017          | (\$ 599,788)                    |
| FAULCONE/BOSTON 85-1 LTD PTRNS | -                   | 169,007             | 169,007                         |
| UNITED STATES DOLLARS          | 13,138              | 13,138              | -                               |
| <b>TOTAL</b>                   | <b>\$ 1,169,943</b> | <b>\$ 739,162</b>   | <b>(\$ 430,781)</b>             |





# ACTUARIAL VALUATION: STATE/TEACHER - 1997



|  |    |
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## SECTION I BOARD SUMMARY

### Overview

This report presents the results of our June 30, 1997, actuarial valuation of the retirement plan(s) for state employees and teachers administered by the Maine State Retirement System (MSRS). These results provide a “snapshot” view of the System’s financial condition on June 30, 1997.

One of the principal purposes of the annual actuarial valuation is to determine the amount that the State, as the employer, must contribute to the plan, given its funded status and its actuarial assumptions. For the MSRS state employee and teacher plans, the State’s employer contribution is expressed as a percent of payroll (contribution rate), an approach largely dictated by the way in which the State establishes and manages its budget.

This year’s valuation produces a combined employer contribution rate for the state employee and teacher plans of 17.23%, which is lower than the 18.24% produced in last year’s valuation. The decrease results from the combination of investment returns at greater than the actuarially assumed 8% and employee salary increases and post-retirement COLAs at less than their actuarially assumed rates.

On June 30, 1997, the total actuarial liability for the System’s state employee and teacher plans stood at \$6.1 billion, up from \$5.9 billion at the end of the previous year. Similarly, the total actuarial value of assets increased from \$3.0 billion on June 30, 1996 to \$3.5 billion on June 30, 1997. The increase in actuarial liability, \$0.2 billion, was lower than that anticipated by the valuation assumptions.

Two items of note for this valuation report are as follows. First, the liabilities in this report do not anticipate any potential liabilities attributable to Parker v. Wakelin and related litigation\*. Should the need to include such additional liabilities arise, a complete restatement of this June 30, 1997, valuation report will be issued.

Second, this is the first year in which we measure experience gains/losses for purposes of the 1995 Constitutional amendment. In 1997, the plans experienced a net gain of \$380 million. Therefore, the Constitutional requirement regarding the amortization of experience losses and the Board of Trustees’ policy regarding the treatment of experience gains were not called into play in this year’s valuation.

Finally, because this is not a “State budget year” this valuation does not in fact establish or affect the employer contribution rates as set in the biennial State budget. It is nonetheless important for assessing the funding requirements and funding progress of the State employee and teacher plans.

The balance of this section summarizes recent trends in the System’s finances, analyzes the actuarial experience in the System during the past year, and concludes with summary tables useful for reference purposes.

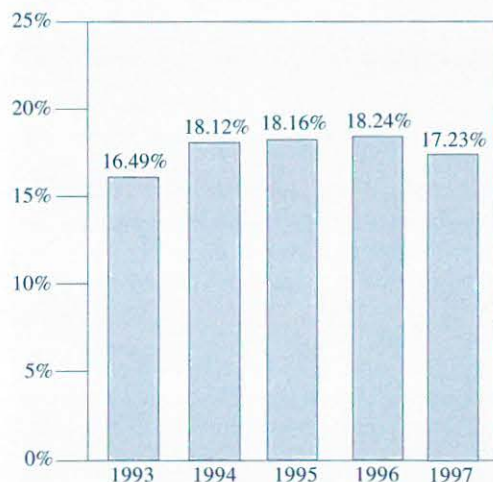
*\*For a concise statement of the nature of this litigation and the related potential liabilities, see the Maine State Retirement System financial statements for FY 1996 and FY1997 and notes thereto.*





## System Trends

### Retirement System Contribution Rates\*

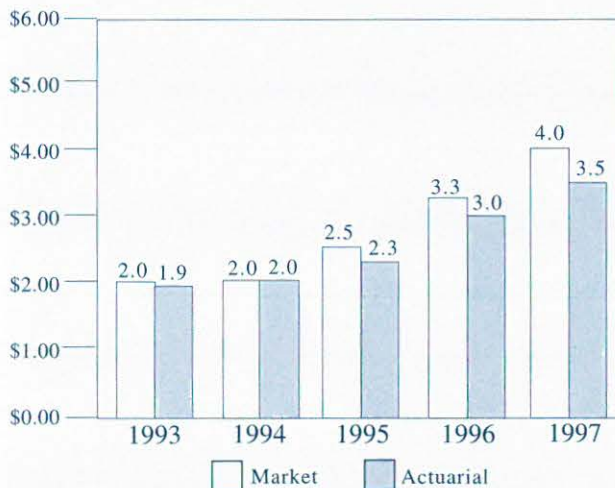


The contribution rate decreased significantly in the past year mainly due to a higher than expected investment return.

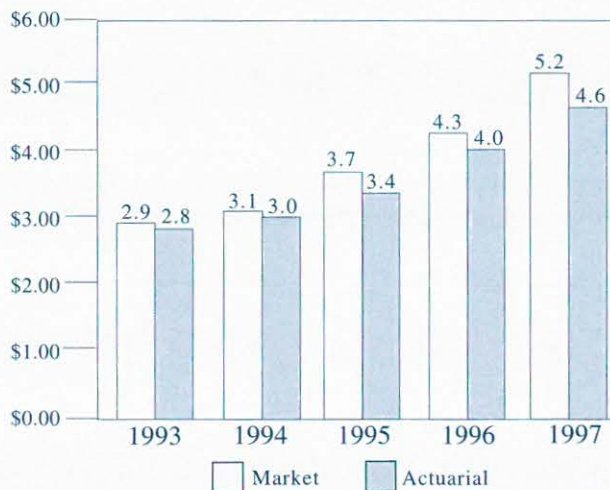
\*Rates do not include retiree health insurance charges or administrative expenses. Rates shown are composite rates for the State Regular employees, Teachers, and the State special plan groups: State Police, Game Wardens, Sea and Shore Wardens, Prison Wardens, Liquor Inspectors and Forest Rangers.

### Retirement System Assets

#### State Employee and Teacher Assets (in billions)



#### System Total Assets\*\* (in billions)

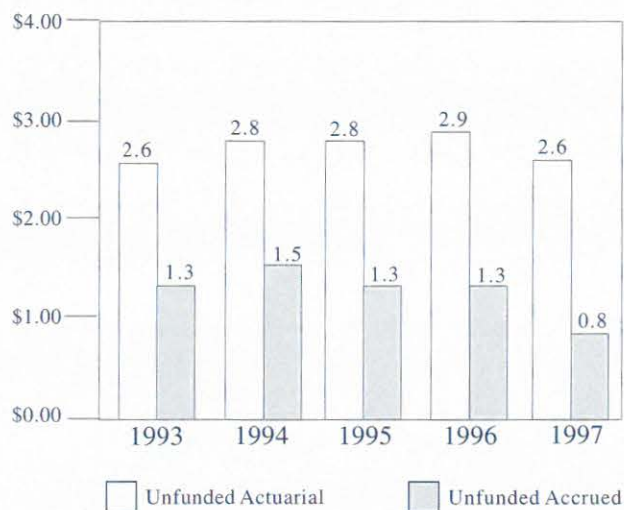


The System's assets earned about 18.5% from 1996 to 1997 when measured on Market Values. For funding purposes we used a smoothed value of assets known as the Actuarial Value. On this basis, the assets returned 15.1% over the year.

\*\*System total assets include those attributable to the state employee, teacher, judicial, legislative and participating local district (Consolidated and non-consolidated/withdrawn) plans.



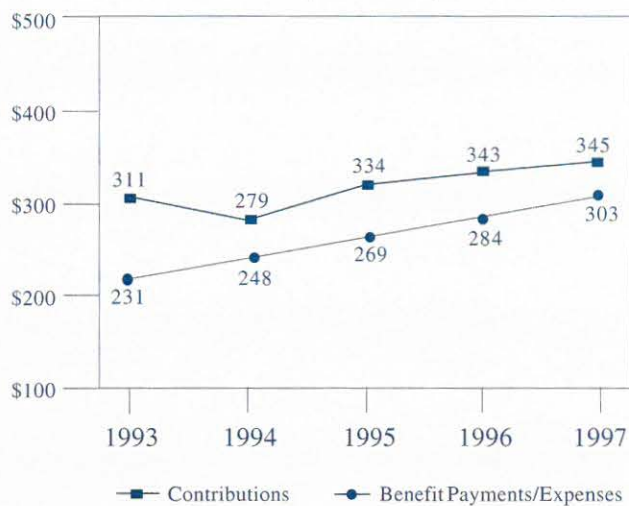
### Unfunded Liabilities (in billions)



The unfunded actuarial liability decreased by \$277 million between 1996 and 1997. This was due to the combined effect of liability and investment gains.

Benefits have steadily grown over the past few years as more members achieve retired status. Contributions have fluctuated due to timing differences and budgetary adjustments.

### Cash Flows (in millions)







## System Experience

July 1, 1996 - June 30, 1997

The key indicator of overall experience of the System is the stability in the composite State contribution rate. The rate is set so that it will be stable from year to year if experience is exactly as expected. An increase in the rate indicates unfavorable experience and a decrease, favorable experience, during the year covered by the valuation. The net experience of the System during the year ending June 30, 1997, was better than expected resulting in a decrease in the contribution rate of 1.01%.

The balance of this part examines the System's experience in more detail.

### Assets

As of June 30, 1997, the market value of System assets was \$5.17 billion, an increase of \$0.85 billion from the 1996 figure of \$4.32 billion.

When measured on a method that smooths market fluctuations, the actuarial value of System assets increased by \$0.64 billion to \$4.60 billion in 1997 from \$3.96 billion in 1996. The components of this change, in millions, are:

| Actuarial   | Market  |
|---|---------|
| + \$345 employer and member contributions,                              | + \$345 |
| - \$303 payment of benefits and expenses,                               | - 303   |
| + \$318 investment return per 8.0% assumption,                          | + 347   |
| + \$283 actuarial investment gain (actuarial rate of return<br>@ 15.1%) |         |
| market investment gain (market rate of return<br>@ 18.5%)               | + 457   |
| = \$643 total increase in assets.                                       | = \$846 |

The investment gain for State employee and Teacher plans only, excluding participating local districts, was \$216.8 million on an actuarial value basis.

Section II of this report presents more detailed information on System assets.

### Liabilities

Throughout this report we discuss two types of liabilities:

- Actuarial Liabilities
- Accrued Benefit Liabilities

#### Actuarial Liability

In general, Actuarial Liabilities are calculated for purposes of determining future contributions, and are directly dependent upon the particular funding method used by the actuary. Use of different funding methods would provide entirely different results, when nothing else has changed (e.g., inflation, salaries, etc.). The calculation of unfunded actuarial liabilities includes assumed future increases in pay and service credits.



As of June 30, 1997, the State's Unfunded Actuarial Liability was \$2.61 billion. This compares to a June 30, 1996 Unfunded Actuarial Liability of \$2.89 billion, a decrease of \$277 million. This compares with an expected increase of \$103 million. The components of this decrease, in millions, are as follows:

|   |          |
|---|----------|
| Unfunded Actuarial Liability, June 30, 1996 | \$ 2,889 |
| • increase expected                         | 103      |
| • decrease due to asset gain                | (217)    |
| • other (gains)/losses (see below)          | (163)    |
| Unfunded Actuarial Liability, June 30, 1997 | \$ 2,612 |

The unexpected decrease in unfunded liabilities from "other (gains)/losses" of \$163 million, is attributable to the differences between assumed and actual rates of pay increases and of members retiring, terminating employment, or dying.

### Accrued Benefit Liability

The second type of liability is the Accrued Benefit Liability. This represents the liabilities for all future benefits, based on members' earnings and service credits as of the valuation date June 30, 1997. The difference between this figure and the market value of System assets represents the Unfunded Accrued Benefit Liability. As of June 30, 1997 the Unfunded Accrued Benefit Liability was \$0.83 billion, down from \$1.34 billion on June 30, 1996.

### Pension Benefit Obligation

Because of the changed GASB requirements, there is no Pension Benefit Obligation (PBO) disclosure in this valuation and there will not be a PBO disclosure in future valuations. GASB 5, which required PBO disclosure, has been superseded by GASB 25, which requires the disclosures included in this valuation in Table III-1.

### Contributions

In Section IV of this report, we present detailed information on the development of State employer contribution rates to the System, calculated as of June 30, 1997. In addition, Section IV discusses the application of the State contribution rate for State budget purposes.

Contributions to the System consist of:

- a "normal contribution" for the portion of projected liabilities attributable to service of members during the year following the valuation date, and
- an "unfunded actuarial liability contribution" for the excess of actuarial liabilities over assets on hand,

The composite contribution rate for all State employees and Teachers decreased from 18.24% of payroll as of June 30, 1996 to 17.23% of payroll as of June 30, 1997. The primary components of this change are shown below.

|   |         |
|---|---------|
| Contribution Rate as of June 30, 1996                               | 18.24 % |
| Investment Gain (Due to Higher than Expected Investment Returns)    | (0.81)  |
| Net effect of Others Losses and Gains                               | (0.61)  |
| Effect of Aggregate Payroll Growth at less than the 6.0% Assumption | 0.41    |
| Contribution Rate as of June 30, 1997                               | 17.23 % |





The effect of aggregate payroll growth at less than the actuarial assumption was discussed in detail in the 1995 valuation report. Simply put, the dollar amount of the unfunded actuarial liability payment increased according to the amortization schedule for its ultimate paydown, while the aggregate payroll (which is divided into this contribution in order to create a rate) did not grow as much as anticipated. As a result, this factor acts to increase the contribution rate (but not necessarily resulting in an increase in the dollar amount of the contribution). As shown above, the combination of this factor with other factors that act to decrease the rate resulted in total in a decrease in the contribution rate.



## SUMMARY OF PRINCIPAL RESULTS

### TOTAL (State and Teacher)\*

| 1. Participant Data   | <u>June 30, 1997</u>    | <u>June 30, 1996</u>    |
|---|-------------------------|-------------------------|
| Number of:  |                         |                         |
| Active Members  | 39,297                  | 38,417                  |
| Retired Members and Beneficiaries   | 18,794                  | 18,598                  |
| Survivors and Disabled Members  | 2,277                   | 2,202                   |
| Vested Deferred Members   | 1,438                   | 1,609                   |
| Total Membership  | <u>61,806</u>           | <u>60,826</u>           |
| <br>Annual Salaries of Active Members   | <br>\$ 1,109,300,071    | <br>\$ 1,088,516,507    |
| <br>Annual Retirement Allowances for<br>Retired Members and Beneficiaries<br>(includes survivors and<br>disabled employees) | <br>\$ 243,512,089      | <br>\$ 230,010,886      |
| <br>2. Assets and Liabilities   |                         |                         |
| Actuarial Liability   | \$ 6,142,779,464        | \$ 5,907,100,991        |
| Actuarial Value of Assets   | 3,530,721,113           | 3,018,115,219           |
| Unfunded Actuarial Liability  | <u>\$ 2,612,058,351</u> | <u>\$ 2,888,985,772</u> |
| <br>Accrued Liability   | <br>\$ 4,797,737,657    | <br>\$ 4,636,863,161    |
| Market Value of Assets  | 3,964,028,611           | 3,294,019,681           |
| Unfunded Accrued Liability  | <u>\$ 833,709,046</u>   | <u>\$ 1,342,843,480</u> |
| <br>Accrued Benefit Funding Ratio   | <br>82.62%              | <br>71.04%              |
| <br>3. Contribution Results as a Percent of Payroll<br>(composite rate for all State Employees and<br>Teachers)**           |                         |                         |
| Normal Cost   | 7.22%                   | 7.22%                   |
| Unfunded Actuarial Liability  | 10.01%                  | 11.02%                  |
| <br>Total   | <br><u>17.23%</u>       | <br><u>18.24%</u>       |

\*Excludes participating local districts

\*\*Excludes charges for retiree health insurance and administrative expenses.





## SUMMARY OF PRINCIPAL RESULTS TEACHERS (MTRA)\*

| 1. Participant Data  | June 30, 1997    | June 30, 1996    |
|--|------------------|------------------|
| Number of:   |                  |                  |
| Active Members   | 25,545           | 24,705           |
| Retired Members and Beneficiaries  | 9,383            | 9,245            |
| Survivors and Disabled Members   | 806              | 790              |
| Vested Deferred Members  | 880              | 1,005            |
| Total Membership   | 36,614           | 35,745           |
| Annual Salaries of Active Members  | \$ 713,084,127   | \$ 692,611,420   |
| Annual Retirement Allowances for Retired Members and Beneficiaries (includes survivors and disabled employees) | \$ 129,462,550   | \$ 121,954,080   |
| 2. Assets and Liabilities  |                  |                  |
| Actuarial Liability  | \$ 3,903,840,151 | \$ 3,719,637,088 |
| Actuarial Value of Assets  | 2,034,445,808    | 1,709,701,925    |
| Unfunded Actuarial Liability   | \$ 1,869,394,343 | \$ 2,009,935,163 |
| Accrued Liability  | \$ 2,931,565,280 | \$ 2,797,645,636 |
| Market Value of Assets   | 2,284,123,025    | 1,865,996,286    |
| Unfunded Accrued Liability   | \$ 647,442,255   | \$ 931,649,350   |
| Accrued Benefit Funding Ratio  | 77.91%           | 66.70%           |
| 3. Contribution Results as a Percent of Payroll**  |                  |                  |
| Normal Cost  | 7.25%            | 7.25%            |
| Unfunded Actuarial Liability   | 11.14%           | 12.05%           |
| Total  | 18.39%           | 19.30%           |

\*Maine Teachers Retirement Association

\*\*Excludes charges for retiree health insurance and administrative expenses.



## SUMMARY OF PRINCIPAL RESULTS

### TOTAL STATE

| 1. Participant Data  | <u>June 30, 1997</u>  | <u>June 30, 1996</u>  |
|--|-----------------------|-----------------------|
| Number of:   |                       |                       |
| Active Members   | 13,752                | 13,712                |
| Retired Members and Beneficiaries  | 9,411                 | 9,353                 |
| Survivors and Disabled Members   | 1,471                 | 1,412                 |
| Vested Deferred Members  | 558                   | 604                   |
| Total Membership   | <u>25,192</u>         | <u>25,081</u>         |
| Annual Salaries of Active Members  | \$ 396,215,944        | \$ 395,905,087        |
| Annual Retirement Allowances for Retired Members and Beneficiaries (includes survivors and disabled employees) | \$ 114,049,539        | \$ 108,056,806        |
| <b>2. Assets and Liabilities</b>   |                       |                       |
| Actuarial Liability  | \$ 2,238,939,313      | \$2,187,463,903       |
| Actuarial Value of Assets  | 1,496,275,305         | 1,308,413,294         |
| Unfunded Actuarial Liability   | <u>\$ 742,664,008</u> | <u>\$ 879,050,609</u> |
| Accrued Liability  | \$ 1,866,172,377      | \$1,839,217,525       |
| Market Value of Assets   | 1,679,905,586         | 1,428,023,395         |
| Unfunded Accrued Liability   | <u>\$ 186,266,791</u> | <u>\$ 411,194,130</u> |
| Accrued Benefit Funding Ratio  | 90.02%                | 77.64%                |
| <b>3. Contribution Results as a Percent of Payroll*</b>  |                       |                       |
| Normal Cost  | 7.17%                 | 7.17%                 |
| Unfunded Actuarial Liability   | 7.96%                 | 9.22%                 |
| Total  | <u>15.13%</u>         | <u>16.39%</u>         |

\*Excludes charges for retiree health insurance and administrative expenses.





## SUMMARY OF PRINCIPAL RESULTS

### STATE REGULAR

#### 1. Participant Data

|  | <u>June 30, 1997</u> | <u>June 30, 1996</u> |
|--|----------------------|----------------------|
| Number of:   |                      |                      |
| Active Members   | 12,995               | 12,954               |
| Retired Members and Beneficiaries  | 8,610                | 8,580                |
| Survivors and Disabled Members   | 1,463                | 1,408                |
| Vested Deferred Members  | <u>558</u>           | <u>589</u>           |
| Total Membership   | 23,626               | 23,531               |
| Annual Salaries of Active Members  | \$ 370,978,045       | \$ 371,078,137       |
| Annual Retirement Allowances for Retired Members and Beneficiaries (includes survivors and disabled employees) | \$ 99,885,900        | \$ 94,744,724        |

#### 2. Assets and Liabilities

|                               |                      |                      |
|-------------------------------|----------------------|----------------------|
| Actuarial Liability           | \$ 1,974,119,866     | \$ 1,928,498,890     |
| Actuarial Value of Assets     | <u>1,319,297,396</u> | <u>1,167,921,222</u> |
| Unfunded Actuarial Liability  | \$ 654,822,470       | \$ 760,577,668       |
| Accrued Liability             | \$ 1,613,652,550     | \$ 1,595,605,644     |
| Market Value of Assets        | <u>1,481,208,076</u> | <u>1,274,688,079</u> |
| Unfunded Accrued Liability    | \$ 132,444,474       | \$ 320,917,565       |
| Accrued Benefit Funding Ratio | 91.79%               | 79.89%               |

#### 3. Contribution Results as a Percent of Payroll (State Portion only)\*

|                              |               |               |
|------------------------------|---------------|---------------|
| Normal Cost                  | 6.65%         | 6.65%         |
| Unfunded Actuarial Liability | 7.50%         | 8.51%         |
| Total                        | <u>14.15%</u> | <u>15.16%</u> |

\*Excludes charges for retiree health insurance and administrative expenses.



## SUMMARY OF PRINCIPAL RESULTS COMPOSITE SPECIALS

| 1. Participant Data   | <u>June 30, 1997</u> | <u>June 30, 1996</u>  |
|---|----------------------|-----------------------|
| Number of:  |                      |                       |
| Active Members  | 757                  | 758                   |
| Retired Members and Beneficiaries   | 801                  | 773                   |
| Survivors and Disabled Members  | 8                    | 4                     |
| Vested Deferred Members   | 0                    | 15                    |
| Total Membership  | <u>1,566</u>         | <u>1,550</u>          |
| Annual Salaries of Active Members   | \$ 25,237,899        | \$ 24,826,950         |
| Annual Retirement Allowances for<br>Retired Members and Beneficiaries<br>(includes survivors and<br>disabled employees) | \$ 14,163,639        | \$ 13,312,082         |
| <br>2. Assets and Liabilities   |                      |                       |
| Actuarial Liability   | \$ 264,819,447       | \$ 258,965,013        |
| Actuarial Value of Assets   | 176,977,909          | 140,492,072           |
| Unfunded Actuarial Liability  | <u>\$ 87,841,538</u> | <u>\$ 118,472,941</u> |
| Accrued Liability   | \$ 252,519,827       | \$ 243,611,881        |
| Market Value of Assets  | 198,697,510          | 153,335,316           |
| Unfunded Accrued Liability  | <u>\$ 53,822,317</u> | <u>\$ 90,276,565</u>  |
| Accrued Benefit Funding Ratio   | 78.69%               | 62.94%                |
| <br>3. Contribution Results as a Percent of Payroll*  |                      |                       |
| Normal Cost   | 14.88%               | 14.93%                |
| Unfunded Actuarial Liability  | 14.79%               | 19.81%                |
| <br>Total   | <u>29.67%</u>        | <u>34.74%</u>         |

\*Excludes charges for retiree health insurance and administrative expenses.





## SECTION II ASSETS

In this section we present the value assigned to assets held by the System. These assets are valued on two different bases: the market value and the actuarial value.

### Market Value of Assets

For accounting statement purposes, System assets are valued at current market values. Briefly stated, these values represent the "snapshot" or "cash-out" value of System assets as of the valuation date. Table II-1 shows the market value of System assets as of June 30, 1997, by investment category.

### Actuarial Value of Assets

The market value of assets, representing a "liquidation" value of the funds, is not a good measure of the System's ongoing ability to meet its obligations. Ongoing funding requirements established using market values are subject to significant variability because of the volatility of market values.

As a consequence, actuarial valuations employ a technique for determining the actuarial value of assets which dampens the swings in market value. The specific technique adopted recognizes one-third of the investment return in excess of the 8.00% actuarial assumption each year. The following is a step-by-step description:

**Step 1:** Determine the total yield on the investments of the System using the full investment return (including capital gains) measured by the difference in the actuarial value of the assets at the beginning of the fiscal year just ended (adjusted for cash flow) and the market value of assets at the end of the fiscal year. The calculation of this return is:

(a) Increase in assets = Market value of assets at the end of the year minus actuarial value of assets at the end of the prior year adjusted for net cash flow for the current year (contributions minus benefit payments) [= \$1,165,975,162].

(b) Adjusted actuarial value of assets = Actuarial value of assets at the end of the prior year plus one-half of net cash flow for the current year [= \$3,980,632,847].

(c) Return = (a) Increase in assets divided by (b) Adjusted actuarial value of assets [= 29.29%].

**Step 2:** Calculate the excess of the actual return determined in Step 1 over the expected return for the same year according to the actuarial assumptions (8.00%). [29.29% - 8.00% = 21.29%]

**Step 3:** Calculate an adjusted rate equal to the rate expected by the actuarial assumption (8.00%) plus one-third of the rate determined in step 2. [8.00% + (1/3 \* 21.29%) = 15.10%]

**Step 4:** The actuarial value of assets equals the amount that would have existed if the actual return on last year's actuarial value of assets had been the theoretical rate determined in Step 3 applied to last year's actuarial value of assets.

### Allocation by Group

Since retirement benefit costs are calculated separately for State Employees, Teachers and other Special Groups, total assets (market and actuarial values) must be allocated to each of these groups. We have made this allocation as of June 30, 1997, in proportion to System reserves (provided at market value). The total for each group has been further allocated between the Member Contribution Fund and the Retirement Allowance Fund. The resulting allocations are shown in Tables II-2 and II-3.

Tables II-2 and II-3 reflect the allocation of funds formerly held for Death and Disability reserves into the retirement reserve accounts. This allocation was performed on the basis of actuarial liabilities for these ancillary benefits as measured using the Entry Age Normal funding method.





**TABLE II-1**  
**INVESTMENT CATEGORIES AT MARKET VALUE**

| <u>Asset Category</u> | <u>June 30, 1997</u>    |
|-----------------------|-------------------------|
| Bonds &               |                         |
| Cash Equivalents      | \$ 1,992,437,156        |
| Stocks                | 3,165,519,829           |
| Land & Buildings      | 9,916,152               |
| <b>TOTAL</b>          | <b>\$ 5,167,873,137</b> |

**TABLE II-2**  
**ALLOCATION OF MARKET VALUE OF ASSETS**

|                         | <u>Allocation to:</u><br><u>Member</u><br><u>Contribution Fund</u> | <u>Retirement</u><br><u>Allowance Fund</u> | <u>Total</u>            |
|-------------------------|--|--|-------------------------|
| State Employees         | \$ 405,361,418   | \$ 1,274,544,168                           | \$ 1,679,905,586        |
| MTRA Teachers           | 655,002,706  | 1,629,120,319                              | 2,284,123,025           |
| Judges                  | 3,303,568  | 22,743,394                                 | 26,046,962              |
| Legislators             | 590,171  | 3,689,661                                  | 4,279,832               |
| Subtotal State          | \$ 1,064,257,863   | \$ 2,930,097,543                           | \$ 3,994,355,406        |
| Participating Districts | 146,089,530  | 1,027,428,201                              | 1,173,517,731           |
| <b>TOTAL</b>            | <b>\$ 1,210,347,393</b>  | <b>\$ 3,957,525,744</b>                    | <b>\$ 5,167,873,137</b> |

**TABLE II-3**  
**ALLOCATION OF ACTUARIAL VALUE OF ASSETS**

|                         | <u>Allocation to:</u><br><u>Member</u><br><u>Contribution Fund</u> | <u>Retirement</u><br><u>Allowance Fund</u> | <u>Total</u>            |
|-------------------------|--|--|-------------------------|
| State Employees         | \$ 405,361,418   | \$ 1,090,913,887                           | \$ 1,496,275,305        |
| MTRA Teachers           | 655,002,706  | 1,379,443,102                              | 2,034,445,808           |
| Judges                  | 3,303,568  | 19,896,204                                 | 23,199,772              |
| Legislators             | 590,171  | 3,221,833                                  | 3,812,004               |
| Subtotal State          | \$ 1,064,257,863   | \$ 2,493,475,026                           | \$ 3,557,732,889        |
| Participating Districts | 146,089,530  | 899,151,117                                | 1,045,240,647           |
| <b>TOTAL</b>            | <b>\$ 1,210,347,393</b>  | <b>\$ 3,392,626,143</b>                    | <b>\$ 4,602,973,536</b> |





## SECTION III LIABILITIES

### Actuarial Liabilities

A fundamental principle in financing the liabilities of a retirement program is that the cost of its benefits should be related to the period in which benefits are earned, rather than to the period of benefit distribution. There are several methods currently used in making such a determination.

The method used for this valuation is referred to as the "entry age normal actuarial cost method." Under this method, a level-percent-of-pay employer cost is determined which, along with member contributions, will pay for projected benefits at retirement for a new entrant into the plan. It is assumed applicable to all active plan members. The level percent developed is called the normal cost rate and the product of that rate and payroll is the normal cost.

The actuarial liability is that portion of the present value of projected benefits that will not be paid by future employer normal costs or member contributions. The difference between this liability and funds accumulated as of the same date is referred to as the unfunded actuarial liability. If the employer's contributions exceed the employer's normal cost for the year, after allowing for interest earned on the previous balance of the unfunded actuarial liability, this liability will be reduced. Benefit improvements, actuarial gains and losses, and changes in actuarial procedures will also have an effect on the total actuarial liability and on the portion of it that is unfunded.

After the amount of the unfunded actuarial liability has been determined, a schedule of contributions is established to amortize that amount over a given period. Effective with the 1987 valuation, a 30 year amortization period was adopted for the Maine State Retirement System. Effective with the June 30, 1993 valuation the amortization period was extended to 35 years. Payments to fund the actuarial liability will be a level percentage of payroll.

In Table III-1 we have summarized the actuarial liabilities as of June 30, 1997, and the amounts that were unfunded.

### Accounting Statement Information

Statement No. 35 of the Financial Accounting Standards Board requires the System to disclose certain information regarding its funded status.

As directed by the above referenced accounting statements, the liabilities shown in Table III-2, Accrued Benefit Liabilities, do not include any projections for future creditable service and pay increases.

The GASB has released a new pronouncement which replaced the disclosures formerly required by Statement #5. The figures shown in Table III-1 are suitable for the new Statement #25 disclosures. This is the first report in which we are not providing the PBO disclosure statement formerly required by GASB Statement #5.

Both present values of accrued benefits are determined assuming that the plan is ongoing and participants continue to terminate employment, retire, etc. in accordance with the actuarial assumptions.





**TABLE III-1  
ACTUARIAL LIABILITIES**

|   | State<br>Employees      | MTRA*<br>Teachers       | All State<br>Employees  |
|---|-------------------------|-------------------------|-------------------------|
| 1. Active employees                                     |                         |                         |                         |
| (a) Current accrued benefits                            | \$ 640,407,504          | \$ 1,505,332,079        | \$ 2,145,739,583        |
| (b) Future benefit accruals                             | 882,345,071             | 1,946,660,073           | 2,829,005,144           |
| (c) Total active projected benefits                     | <u>\$ 1,522,752,575</u> | <u>\$ 3,451,992,152</u> | <u>\$ 4,974,744,727</u> |
| 2. Inactive Employees                                   | \$ 1,225,764,873        | \$ 1,426,233,201        | \$ 2,651,998,074        |
| 3. Total Present Value of<br>Projected Benefits (1 + 2) | \$ 2,748,517,448        | \$ 4,878,225,353        | \$ 7,626,742,801        |
| 4. Future Contributions                                 | \$ 509,578,135          | \$ 974,385,202          | \$ 1,483,963,337        |
| 5. Actuarial Liability (3 - 4)                          | \$ 2,238,939,313        | \$ 3,903,840,151        | \$ 6,142,779,464        |
| 6. Invested Assets<br>(Actuarial Value)                 | \$ 1,496,275,305        | \$ 2,034,445,808        | \$ 3,530,721,113        |
| 7. Unfunded Actuarial<br>Liability (5 - 6)              | \$ 742,664,008          | \$ 1,869,394,343        | \$ 2,612,058,351        |

\*Includes Old System Teachers

**TABLE III-2  
ACCRUED BENEFIT LIABILITIES**

|  | State<br>Employees      | MTRA*<br>Teachers       | All State<br>Employees  |
|--|-------------------------|-------------------------|-------------------------|
| 1. Present Value of Accrued Benefits                   |                         |                         |                         |
| (a) Employees terminated with<br>vested rights         | \$ 23,879,309           | \$ 35,439,240           | \$ 59,318,549           |
| (b) Retired employees                                  | 1,201,885,564           | 1,390,793,961           | 2,592,679,525           |
| (c) Active employees                                   | 640,407,504             | 1,505,332,079           | 2,145,739,583           |
| (d) Total  | <u>\$ 1,866,172,377</u> | <u>\$ 2,931,565,280</u> | <u>\$ 4,797,737,657</u> |
| 2. Invested Assets (Market Value)                      | \$ 1,679,905,586        | \$ 2,284,123,025        | \$ 3,964,028,611        |
| 3. Unfunded Present Value<br>of Accrued Benefits (1-2) | \$ 186,266,791          | \$ 647,442,255          | \$ 833,709,046          |
| 4. Accrued Benefit Funding<br>Ratio (2/1)              | 90.0%                   | 77.9%                   | 82.6%                   |

\*Includes Old System Teachers





## SECTION IV CONTRIBUTIONS

### General Comments

Under established procedures, in a year in which the State is preparing and, eventually, adopting its budget for an upcoming biennium, employer contribution rates based on the annual actuarial valuation for the fiscal year that precedes the fiscal year in which a biennium begins are used to establish the required employer contributions and hence the appropriations for those contributions to be made in the biennial budget. Contributions, contribution rates and appropriations are thus established for both years of the biennium.

The actuarial valuation for a fiscal year that precedes the second year of a biennium does not affect the contributions, contribution rates or appropriations as previously set in the budget, but is important for assessing the funding requirement and funding progress of the State employee and teacher plan(s).

### Employer Contribution Rate

As used in this valuation, and because of the way in which the State establishes and manages its budget, "employer contribution rate" means the percentage that is applied to a particular active member payroll to result in the required contribution amount in dollars for the group represented by the payroll.

### Description of Rate Components

The Entry Age Normal method was used to develop the employer contribution rates in this section. Under this funding method, as with most other actuarial funding methods, a total contribution rate is determined which consists of two elements: the normal cost rate and the unfunded actuarial liability rate. These elements are described in more detail below.

#### Normal Cost Rate

For State employees, teachers (MTRA) and each Special Group, an individual entry age normal cost rate was determined for a typical new entrant of each respective group. This rate was determined by taking the value, as of age at entry into the plan, of the member's projected future benefits, reducing it by the value of future member contributions, and dividing it by the value, also as of the member's entry age, of his expected future salary. The normal cost rate, so determined separately for each group, was assumed applicable to all active members of the group.

#### Unfunded Actuarial Liability Rate

The unfunded actuarial liability under the Entry Age Normal method equals the present value, at time of valuation, of future benefits less the present value of future normal costs, future member contributions and current assets. The unfunded actuarial liability rate (or amortization rate) is the level percent of active member payroll which, when applied to each year's payroll, is sufficient to amortize the unfunded actuarial liability over 35 years from June 30, 1993.

### Total Contribution Rate Summary

In Table IV-1 we present total contribution rates, determined as of June 30, 1997, applicable for determining the Fiscal Year 1999 State appropriations to the System, using the cost methods described above. These were developed using actuarial assumptions and methods described in Appendix C.

The derivations of the unfunded actuarial liability rates for each group are shown in Table IV-2.



**TABLE IV-1**  
**RECOMMENDED STATE CONTRIBUTION RATES\***  
**FOR FISCAL YEAR 1998/1999**

|                                     | <u>NORMAL<br/>COST**</u> | <u>UNF<br/>ACTRL<br/>LIAB</u> | <u>TOTAL<br/>CONTRIBUTION<br/>RATE</u> |
|-------------------------------------|--------------------------|-------------------------------|--|
| State Employees                     | 6.65%                    | 7.50%                         | 14.15%                                 |
| Special Groups                      |                          |                               |  |
| State Police (Closed Plan)          | 20.10%                   | 39.60%                        | 59.70%                                 |
| State Police (Open Plan)            | 20.10%                   | 0.00%                         | 20.10%                                 |
| Sea and Shore Wardens (Closed Plan) | 18.10%                   | 35.39%                        | 53.49%                                 |
| Game Wardens (Closed Plan)          | 20.10%                   | 47.62%                        | 67.72%                                 |
| Prison Wardens (Closed Plan)        | 9.20%                    | 15.80%                        | 25.00%                                 |
| Prison Wardens (Open Plan)          | 9.20%                    | 0.00%                         | 9.20%                                  |
| Liquor Inspectors (Closed Plan)     | 9.20%                    | 14.36%                        | 23.56%                                 |
| Forest Rangers (Closed Plan)        | 8.30%                    | 14.23%                        | 22.53%                                 |
| MTRA Teachers                       | 7.25%                    | 11.14%                        | 18.39%                                 |

*\*These rates do not include charges to cover retiree health insurance or administrative expenses.*

*\*\*Includes cost of all ancillary benefits.*





**TABLE IV-2**  
**June 30, 1997, Valuation**  
**DERIVATION OF UNFUNDED ACTUARIAL LIABILITY RATES**

|   | STATE<br>REGULAR | STATE<br>POLICE* | SEA AND<br>SHORE<br>WARDENS | GAME<br>WARDENS | PRISON<br>WARDENS* | LIQUOR<br>INSPECTORS | FOREST<br>RANGERS | MTRA<br>TEACHERS |
|---|------------------|------------------|-----------------------------|-----------------|--------------------|----------------------|-------------------|------------------|
| 1. Present Value<br>of Future<br>Benefits                   | 2,449,210,616    | 151,308,217      | 17,335,430                  | 57,474,077      | 50,474,951         | 3,782,131            | 18,932,026        | 4,878,225,353    |
| 2. Normal Cost<br>Rate                                      | 6.65%            | 20.10%           | 18.10%                      | 20.10%          | 9.20%              | 9.20%                | 8.30%             | 7.25%            |
| 3. Present Value<br>of Future<br>Payroll                    | 3,322,312,935    | 67,248,308       | 379,376                     | 990,988         | 74,309,435         | 1,515,026            | 7,360,409         | 6,539,497,998    |
| 4. Present Value<br>of Future<br>Normal<br>Costs: (2) x (3) | 220,933,810      | 13,516,910       | 68,667                      | 199,189         | 6,836,468          | 139,382              | 610,914           | 474,113,605      |
| 5. Present Value<br>of Future<br>Member<br>Contributions    | 254,156,940      | 5,816,979        | 32,816                      | 85,720          | 6,427,766          | 115,899              | 636,675           | 500,271,597      |
| 6. Actuarial<br>Liability:<br>(1) - (4) - (5)               | 1,974,119,866    | 131,974,328      | 17,233,947                  | 57,189,168      | 37,210,717         | 3,526,850            | 17,684,437        | 3,903,840,151    |
| 7. Actuarial<br>Value of<br>Assets                          | 1,319,297,396    | 88,197,981       | 11,517,386                  | 38,219,321      | 24,867,792         | 2,356,982            | 11,818,447        | 2,034,445,808    |
| 8. Unfunded<br>Actuarial<br>Liability:<br>(6) - (7)         | 654,822,470      | 43,776,347       | 5,716,561                   | 18,969,847      | 12,342,924         | 1,169,867            | 5,865,990         | 1,869,394,343    |
| 9. Estimated<br>Payroll                                     | 370,978,045      | 4,698,941        | 686,513                     | 1,693,122       | 3,321,028          | 346,355              | 1,752,343         | 713,084,127      |
| 10. Amortization<br>Factor                                  | 23.5281          | 23.5281          | 23.5281                     | 23.5281         | 23.5281            | 23.5281              | 23.5281           | 23.5281          |
| 11. Unfunded<br>Actuarial<br>Liability Rate<br>(8)/(9)/(10) | 7.50%            | 39.60%           | 35.39%                      | 47.62%          | 15.80%             | 14.36%               | 14.23%            | 11.14%           |

\*Includes liabilities for both closed and open plans. Unfunded actuarial liability is attributable to closed plan only.



## APPENDIX A SUMMARY OF MEMBERSHIP DATA ACTIVE MEMBER DATA

|                                     | <u>Count</u> | <u>Average<br/>Current<br/>Age</u> | <u>Average<br/>Service</u> | <u>Average<br/>Valuation<br/>Pay</u> |
|-------------------------------------|--------------|------------------------------------|----------------------------|--------------------------------------|
| Teachers                            | 25,545       | 43.9                               | 13.4                       | \$27,915                             |
| State Regular*                      | 12,992       | 44.3                               | 12.7                       | \$28,544                             |
| Airplane Pilots                     | 3            | 46.7                               | 17.7                       | \$43,672                             |
| Forest Rangers (Closed Plan)        | 47           | 45.8                               | 21.3                       | \$37,284                             |
| Game Wardens (Closed Plan)          | 43           | 46.3                               | 21.9                       | \$39,375                             |
| Liquor Inspectors (Closed Plan)     | 9            | 49.7                               | 24.1                       | \$38,484                             |
| Prison Wardens (Closed Plan)        | 97           | 47.6                               | 19.8                       | \$34,237                             |
| Prison Wardens (Open Plan)          | 253          | 36.9                               | 5.9                        | \$25,253                             |
| State Police (Closed Plan)          | 108          | 44.0                               | 19.3                       | \$43,509                             |
| State Police (Open Plan)            | 183          | 32.9                               | 7.4                        | \$34,702                             |
| Sea and Shore Wardens (Closed Plan) | 17           | 44.5                               | 20.9                       | \$40,383                             |
| State Totals (Excludes Teachers)    | 13,752       | 44.0                               | 12.7                       | \$28,812                             |

\* Includes Forest Rangers, Game Wardens, Liquor Inspectors, and Sea and Shore Wardens hired after August 31, 1984, plus seasonal employees.

## NON-ACTIVE MEMBER DATA TEACHERS

|   | <u>Count</u> | <u>Total<br/>Annual<br/>Benefit</u> | <u>Average<br/>Annual<br/>Benefit</u> |
|---|--------------|-------------------------------------|---------------------------------------|
| <u>Retired</u> (Options 0-4)  | 7,837        | \$ 109,983,787                      | \$ 14,034                             |
| <u>Retired</u> (Option 4 Concurrent Beneficiary)                    | 940          | \$ 3,294,295                        | \$ 3,505                              |
| <u>Disabilities</u> (Options 7, 8, 9)                               | 13           | \$ 208,125                          | \$ 16,010                             |
| <u>Beneficiaries</u>  | 606          | \$ 6,180,669                        | \$ 10,199                             |
| <u>Ordinary Death Benefits</u> (Options A2, BC, C1-3, P1, S1-4, X1) | 303          | \$ 1,274,224                        | \$ 4,205                              |
| <u>Disabilities</u> (Options 6A-E)                                  | 490          | \$ 8,521,450                        | \$ 17,391                             |
| <u>Terminated Vested</u>  | 880          | \$ 4,527,287                        | \$ 5,145                              |



**NON-ACTIVE MEMBER DATA**  
**STATE REGULAR**

|   | <u>Count</u> | <u>Total<br/>Annual<br/>Benefit</u> | <u>Average<br/>Annual<br/>Benefit</u> |
|---|--------------|-------------------------------------|---------------------------------------|
| <u>Retired</u> (Options 0-4)                                      | 6,221        | \$ 72,355,078                       | \$ 11,631                             |
| <u>Retired</u> (Option 4 Concurrent Beneficiary)                  | 1,080        | \$ 3,567,632                        | \$ 3,303                              |
| <u>Disabilities</u> (Options 7, 8, 9)                             | 22           | \$ 285,500                          | \$ 12,977                             |
| <u>Beneficiaries</u>  | 1,308        | \$ 10,112,428                       | \$ 7,731                              |
| <u>Ordinary Death Benefits</u> (Options A2, C1-3, P1, S1-4, X1-2) | 605          | \$ 2,645,998                        | \$ 4,374                              |
| <u>Disabilities</u> (Options 6A-E)                                | 836          | \$ 10,893,227                       | \$ 13,030                             |
| <u>Terminated Vested</u>  | 558          | \$ 4,024,893                        | \$ 7,213                              |

**NON-ACTIVE MEMBER DATA**  
**SPECIAL GROUPS**

|  | <u>Count</u> | <u>Total<br/>Annual<br/>Benefit</u> | <u>Average<br/>Annual<br/>Benefit</u> |
|--|--------------|-------------------------------------|---------------------------------------|
| <u>Retired</u> (Options 0-4)                     | 604          | \$ 12,738,233                       | \$ 21,090                             |
| <u>Retired</u> (Option 4 Concurrent Beneficiary) | 114          | \$ 437,261                          | \$ 3,836                              |
| <u>Disabilities</u> (Options 7, 8, 9)            | 3            | \$ 38,965                           | \$ 12,988                             |
| <u>Beneficiaries</u>                             | 84           | \$ 877,592                          | \$ 10,448                             |
| <u>Disabilities</u> (Options 6A-E)               | 5            | \$ 97,625                           | \$ 19,525                             |
| <u>Terminated Vested</u>                         | 0            | \$ 0                                | \$ NA                                 |



## APPENDIX B SUMMARY OF PLAN PROVISIONS FOR STATE EMPLOYEES AND TEACHERS

### 1. Membership.

Membership is a condition of employment for state employees and teachers, and optional for elected and appointed officials. Membership ceases on the earlier of withdrawal of contributions, retirement, or death.

### 2. Member Contributions.

Except as otherwise described below, members are required to contribute 7.65% of earnable compensation.

Contribution requirements for special groups:

- State police, inland fisheries and wildlife officers (game wardens), and marine resources officers (sea and shore wardens) employed before 9/1/84 - 8.65% of earnable compensation for 20 years; 7.65% thereafter.
- State police and prison employees employed after 8/31/84 - 8.65% of earnable compensation for 25 years; 7.65% thereafter.
- Forest rangers and state prison employees employed before 9/1/84 - 8.65% of earnable compensation until eligible for retirement; 7.65% thereafter.

### 3. Average Final Compensation.

For purposes of determining benefits payable under the System, average final compensation is the average annual rate of earnable compensation for the three years of creditable service (not necessarily consecutive) which produce the highest such average.

For compensation paid on or after July 1, 1993, increases in compensation of greater than 5% per year or 10% over the highest three years will not be included in calculating average final compensation unless the employer pays the cost of including such compensation.

The definition of compensation will no longer include sick and vacation pay for those members who have less than 10 years of service at July 1, 1993.

### 4. Creditable Service.

Creditable service includes service while a member, certain service prior to the establishment of the System, purchased military service credit, and service while receiving disability benefits under the System.

### 5. Service Retirement Benefits.

Except as otherwise described below:

Eligibility for members in service: 25 years of creditable service, or attainment of age 60 with either 10 years of creditable service or one year of service immediately before retirement.

Eligibility for members not in service: 25 years of creditable service, or attainment of age 60 with 10 years of creditable service.

Benefit: 1/50 of average final compensation multiplied by years of membership service and up to 25 years of prior service, reduced for retirement before age 60.

Form of payment: life annuity.





## SUMMARY OF PLAN PROVISIONS FOR STATE EMPLOYEES AND TEACHERS (continued)

For participants who have less than 10 years of service at July 1, 1993, the eligibility age is increased to age 62 and early retirement benefits are reduced 6% for each year before 62.

If greater than the benefits produced by the standard formulas, the following benefits are available for special groups:

State police, inland fisheries and wildlife officers (game wardens), and marine resources officers (sea and shore wardens) employed before 9/1/84:

Eligibility: 20 years of creditable service in named positions.

Benefit: 1/2 of average final compensation plus 2% for each year of service in excess of 20. If greater, the pro-rated portion of the benefit for service before July 1, 1976, is based on annual pay instead of average final pay.

Form of payment: 50% joint and survivor annuity.

State police employed after 8/31/84:

Eligibility: 25 years of creditable service as a state police officer.

Benefit: same as for general employees, reduced for payment before age 55 rather than age 60.

Form of payment: life annuity.

Forest rangers employed before 9/1/84:

Eligibility: age 50 with 25 years of creditable service as a forest ranger.

Benefit: 1/2 of average final compensation plus 2% for each year of service earned after qualification for retirement. If greater, the pro-rated portion of the benefit for service before July 1, 1976, is based on annual pay instead of average final pay.

Form of payment: life annuity.

Airplane pilots employed before 9/1/84:

Eligibility: age 55 and 25 years of creditable service as an airplane pilot.

Benefit: greater of (1) 1/2 of average final compensation plus 2% for each year of service earned after qualification for retirement, and (2) if retiring after age 60, the benefit under the general formula.

Form of payment: life annuity.

Liquor inspectors employed before 9/1/84:

Eligibility: age 55 and 25 years of creditable service as a liquor inspector.

Benefit: 1/2 of average final compensation plus 2% for each year of service earned after qualification for retirement. If greater, the pro-rated portion of the benefit for service before July 1, 1976, is based on annual pay instead of average final pay.

Form of payment: life annuity.





## SUMMARY OF PLAN PROVISIONS FOR STATE EMPLOYEES AND TEACHERS (continued)

State prison employees employed before 9/1/84:

Eligibility: age 50 and 20 years of creditable service as a prison employee.

Benefit: 1/2 of average final compensation plus 2% for each year of service earned after qualification for retirement.

Form of payment: life annuity.

State prison employees employed after 8/31/84:

Eligibility: 25 years of creditable service as a prison employee.

Benefit: same as for general employees, reduced for retirement before age 55 rather than age 60.

Form of payment: life annuity

### 6. Disability Retirement Benefits.

Eligibility: disabled as defined in the MSRS statutes, prior to normal retirement age; employed prior to October 16, 1992 and did not elect No Age Disability Benefits.

Benefit: 66-2/3% of average final compensation, reduced by employment earnings over \$10,000, and to the extent that the benefit, in combination with Workers' Compensation and Social Security, exceeds 80% of average final compensation.

Form of payment: payment begins on termination of service and ceases on cessation of disability or after five years, unless the member is unable to engage in any gainful activity; in which case payments cease on the earlier of 10 years following normal retirement age or date the service retirement benefit exceeds the disability benefit.

Conversion to service retirement: during the period of disability average final compensation is increased with cost-of-living adjustments and service is credited. On the date when service benefits reach a level of 66-2/3% of average final compensation or 10 years after the normal retirement date, if earlier, the disability benefit converts to a service retirement benefit based on service and pay at that point.

### 7. No Age Disability Retirement Benefits.

Eligibility: disabled as defined in the MSRS statutes; employed on or after October 16, 1992 or employed prior to October 16, 1992 and elected the provisions of No Age Disability.

Benefit: 59% of average final compensation, reduced by employment earnings over \$10,000, and to the extent that the benefit, in combination with Workers' Compensation and Social Security, exceeds 80% of average final compensation.

Form of payment: payment begins on termination of service and ceases on cessation of disability or after five years, unless the member is unable to engage in any gainful activity; in which case payments cease on the date the service retirement benefit exceeds the disability benefit.

Conversion to service retirement: during the period of disability average final compensation is increased with cost-of-living adjustments and service is credited. On the date when service benefits reach a level of 59% of average final compensation the disability benefit converts to a service retirement benefit based on service and pay at that point.





## SUMMARY OF PLAN PROVISIONS FOR STATE EMPLOYEES AND TEACHERS (continued)

### 8. Pre-Retirement Ordinary Death Benefits.

Eligibility: death while active or disabled.

Benefit: option 2 (see item 12) is automatically effective with benefits payable to designated beneficiary, spouse, or parents; however, beneficiary may elect survivor benefits payable to a surviving spouse, children, parents, or other beneficiaries in monthly amounts varying by number of eligible survivors. Otherwise, accumulated contributions are payable.

### 9. Pre-Retirement Accidental Death Benefits.

Eligibility: death while active or disabled resulting from a job-related injury, as defined in the MSRS statutes.

Benefit: if the member leaves no dependent children, 2/3 of the member's average final compensation to the surviving spouse until death; if there remain surviving dependent children, an annual sum of the member's final average compensation shared between dependent children and surviving spouse (if any). Benefits are reduced by amounts payable under Workers' Compensation.

### 10. Refund of Contributions.

Eligibility: termination of service other than by retirement or death.

Benefit: member's accumulated contributions with interest.

### 11. Cost-of-living Adjustments

All retirement and survivor benefits are adjusted each year there is a percentage change in the Consumer Price Index, based on the Index. Cost-of-living adjustments are effective September 1 and are applied to all benefits which have been in payment for 12 months. The maximum annual increase or decrease is 4%. Earnable compensation used in determining benefits for disabled members is indexed similarly.

Members who did not have 10 years of service on July 1, 1993 will not receive a cost-of-living adjustment until they reach their normal retirement age.

### 12. Methods of Payment of Service Retirement Benefits.

At retirement, a member must choose from the following methods of payment:

Full Benefit: Unadjusted benefit is paid for the life of the member only.

Option 1: Cash refund equal to the remaining employee contribution balance at the date of death (where the employee contribution balance has been reduced each month by the portion of the monthly benefit deemed to be provided by employee contributions.)

Option 2: 100% joint and survivor annuity.

Option 3: 50% joint and survivor annuity.

Option 4: Any other method of benefit payment which provides a benefit that is actuarially equivalent to the full benefit and is approved by the Board.





## APPENDIX C ACTUARIAL ASSUMPTIONS AND METHODS

### Actuarial Assumptions

|   |            | <u>State<br/>Employees</u> | <u>Teachers</u> |
|---|------------|----------------------------|-----------------|
| 1. Rate of Investment Return                        |            | 8.0%                       | 8.0%            |
| 2. Cost-of-living Increases in Benefits             |            | 4.0%                       | 4.0%            |
| 3. Rates of Salary Increase<br>(% at Selected Ages) | <u>Age</u> |                            |                 |
|   | 20         | 10.0                       | 10.0            |
|   | 25         | 8.8                        | 8.8             |
|   | 30         | 7.7                        | 7.7             |
|   | 35         | 7.2                        | 7.2             |
|   | 40         | 6.7                        | 6.7             |
|   | 45         | 6.2                        | 6.2             |
|   | 50         | 6.0                        | 6.0             |
|   | 55         | 6.0                        | 6.0             |
|   | 60         | 6.0                        | 6.0             |
|   | 65         | 6.0                        | 6.0             |

The above rates include a 6% across-the-board increase at each age. Calculations have been adjusted to account for the 5% per year/10% over three-years cap on final pay.

|   |            | <u>State Employees</u> |                |      | <u>Teachers</u> |                |      |
|---|------------|------------------------|----------------|------|-----------------|----------------|------|
| 4. Rates of Termination<br>at Select and Ultimate<br>Service (% at Selected<br>ages)* | <u>Age</u> |                        | <u>Service</u> |      |                 | <u>Service</u> |      |
|   |            | 0-1                    | 1-2            | 2+   | 0-1             | 1-2            | 2+   |
|   | 20         | 40.0                   | 20.0           | 15.0 | 30.0            | 20.0           | 15.0 |
|   | 25         | 35.0                   | 20.0           | 10.0 | 25.0            | 20.0           | 10.0 |
|   | 30         | 30.0                   | 15.0           | 8.0  | 25.0            | 20.0           | 8.0  |
|   | 35         | 25.0                   | 15.0           | 6.0  | 25.0            | 20.0           | 6.0  |
|   | 40         | 25.0                   | 15.0           | 4.5  | 25.0            | 20.0           | 4.5  |
|   | 45         | 25.0                   | 10.0           | 3.0  | 25.0            | 20.0           | 3.0  |
|   | 50         | 25.0                   | 10.0           | 2.5  | 25.0            | 20.0           | 2.5  |
|   | 55         | 20.0                   | 10.0           | 2.0  | 25.0            | 20.0           | 2.0  |

\* Members with 10 or more years of service and whose age plus service totals 60 or more are assumed to elect deferred vested benefits; other terminations are assumed to elect refunds.

|   | <u>Age</u> | <u>Male</u> | <u>Female</u> | <u>Male</u> | <u>Female</u> |
|---|------------|-------------|---------------|-------------|---------------|
| 5. Rates of Healthy Life<br>Mortality at Selected Ages<br>(number of deaths per<br>10,000 members)* |            |             |               |             |               |
|   | 20         | 5           | 3             | 5           | 2             |
|   | 25         | 6           | 3             | 6           | 3             |
|   | 30         | 8           | 5             | 7           | 4             |
|   | 35         | 11          | 7             | 10          | 6             |
|   | 40         | 16          | 9             | 14          | 8             |
|   | 45         | 29          | 14            | 23          | 12            |
|   | 50         | 53          | 22            | 42          | 18            |
|   | 55         | 85          | 33            | 71          | 27            |
|   | 60         | 131         | 55            | 109         | 44            |
|   | 65         | 213         | 96            | 174         | 77            |
|   | 70         | 361         | 165           | 292         | 129           |

\*For State Regular and Teachers, 5% of deaths assumed to be accidental; for State Special, 20% of deaths assumed to be accidental.





## ACTUARIAL ASSUMPTIONS AND METHODS (continued)

| 6. Rates of Disabled Life Mortality at Selected Ages (number of deaths per 10,000 members) | Age | State Employees |        | Teachers |        |
|--|-----|-----------------|--------|----------|--------|
|  |     | Male            | Female | Male     | Female |
|  | 45  | 349             | 191    | 349      | 191    |
|  | 50  | 376             | 207    | 376      | 207    |
|  | 55  | 420             | 240    | 420      | 240    |
|  | 60  | 488             | 288    | 488      | 288    |
|  | 65  | 595             | 366    | 595      | 366    |
|  | 70  | 763             | 487    | 763      | 487    |

| 7. Rates of Retirement at Selected Ages (number retiring per 1,000 members) | Age | State Employees* | Teachers |
|---|-----|------------------|----------|
|   |     |                  |          |
|   | 45  | 35               | 46       |
|   | 50  | 57               | 70       |
|   | 55  | 150              | 151      |
|   | 59  | 180              | 175      |
|   | 60  | 225              | 240      |
|   | 61  | 100              | 150      |
|   | 62  | 350              | 400      |
|   | 63  | 250              | 250      |
|   | 64  | 250              | 250      |
|   | 65  | 750              | 750      |
|   | 70  | 1000             | 1000     |

\*Members of special plans are assumed to retire when first eligible for unreduced benefits.

|  |    |       |      |
|--|----|-------|------|
| 8. Rates of Disability at Selected Ages (members becoming disabled per 10,000 members)** | 25 | 6.8   | 4.6  |
|  | 30 | 7.6   | 5.0  |
|  | 35 | 8.8   | 5.8  |
|  | 40 | 13.2  | 8.8  |
|  | 45 | 26.4  | 17.6 |
|  | 50 | 50.4  | 33.6 |
|  | 55 | 86.3  | 57.5 |
|  | 60 | 149.0 | 99.4 |

\*\*10% assumed to receive Workers' Compensation benefits of 66-2/3% of pay; also, rates for State Special groups are higher by 7 per 10,000 at all ages. Note: Disability costs calculated using these rates were reduced 15% to reflect favorable experience.

9. Family Composition Assumptions      80% of active members are married with two children born at ages 24 and 28 (dependent until age 18); female spouse is three years younger than male spouse; no dependent parents; unmarried members have beneficiaries entitled to benefits worth 80% as much as those of married members' beneficiaries.

10. Vacation/Sick Leave Credits      For members who had 10 years of service on July 1, 1993, credits for unused vacation and sick leave may be used to increase average final compensation and/or creditable service. In order to reflect this, projected benefits are increased by 1.0% for state employees and 1.3% for teachers.



## ACTUARIAL ASSUMPTIONS AND METHODS (continued)

### Actuarial Methods

#### 1. Funding Method

The aggregate entry age normal method is used to determine costs. Under this funding method, a total contribution rate is determined which consists of two elements, the normal cost rate and the unfunded actuarial liability (UAL) rate.

For teachers (MTRA) and State employees, including each of the eight State Special groups, a normal cost rate is determined for a typical new entrant. This rate is determined by taking the value, as of age at entry into the plan, of the member's projected future benefits, reducing it by the value of future member contributions, and dividing it by the value, also as of the member's entry age, of his expected future salary.

In addition to contributions required to meet the System's normal cost, contributions will be required to fund the System's unfunded actuarial liability. The actuarial liability is defined as the present value of future benefits less the present value of future normal costs and future member contributions. The unfunded actuarial liability is the total of the actuarial liability for all members less the actuarial value of the System's assets. The actuarial liability includes projections of future member pay increases and future service credits and should not be confused with the Accrued Benefit Liability.

The unfunded actuarial liability is amortized by annual payments over a 35 year period from July 1, 1993. The payments are determined so that they will be a level percentage of pay, assuming total pay increases 6% per year.

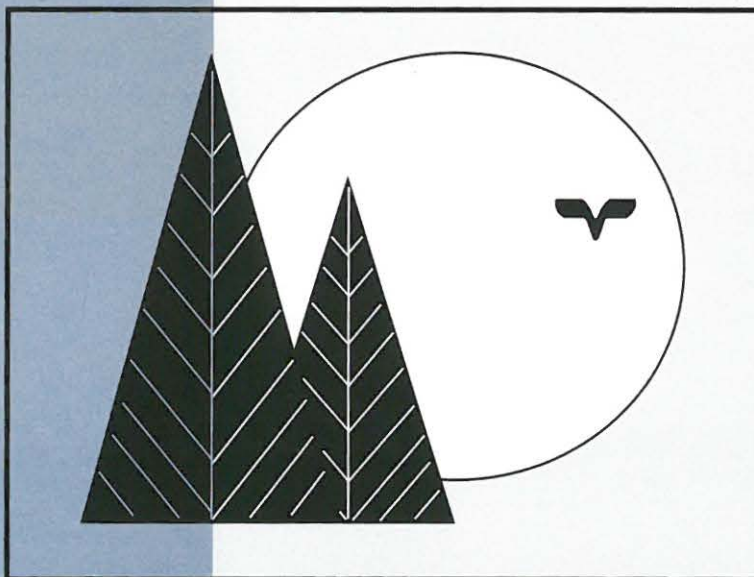
#### 2. Asset Valuation Method

For purposes of the June 30, 1997, actuarial valuation, assets are valued at an "actuarial value" as described in Section II of this report.





# 1997 ACTUARIAL VALUATION: LEGISLATIVE RETIREMENT SYSTEM



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| Accounting Information           | 87 |
| Summary of Plan Provisions       | 88 |
| Summary of Actuarial Assumptions | 91 |







## PARTICIPANT DATA

|  |              |
|--|--------------|
| 1. Number of Active Employees              | 167          |
| 2. Active Payroll                          | \$ 1,714,650 |
| 3. Number of Retired Members*              | 55           |
| 4. Annual Retiree Benefits                 | \$ 66,102    |
| 5. Number of Vested and Inactive Members** | 76           |

## COST RESULTS

|                                 |       |
|---------------------------------|-------|
| 1. Employer Normal Cost***      | 0.00% |
| 2. Unfunded Actuarial Liability | 0.00% |
| 3. Total Cost                   | 0.00% |

## ACCOUNTING INFORMATION

|  |              |
|--|--------------|
| 1. GASB Disclosure   |              |
| A. Actuarial Accrued Liability (Aggregate method, technically there is no AAL. This exhibit show AAL = AVA)    |              |
| 1. Retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits | \$ 1,151,889 |
| 2. Current employees   |              |
| - Accumulated employee contributions including allocated investment earnings                                   | 590,171      |
| - Employer-financed vested   | 0            |
| - Employer-financed non-vested   | 2,069,944    |
| Total Actuarial Accrued Liability  | \$ 3,812,004 |
| B. Actuarial Value of Assets   | \$ 3,812,004 |
| C. Unfunded Actuarial Accrued Liability  | 0            |
| 2. Other Accounting Information  |              |
| A. Pension Benefit Obligation (PBO)  | \$ 2,108,962 |
| B. Cost Value of Assets  | 3,724,281    |
| C. Unfunded PBO, (not less than \$0)   | 0            |
| D. Market Value of Assets  | 4,279,832    |
| E. Unfunded Accrued Liability, (not less than \$0)   | 0            |
| F. Amortization Period   | N/A          |

\*Includes four concurrent beneficiaries and two survivors.

\*\*Includes 66 terminated legislators due a refund of contributions.

\*\*\*Employer Normal Cost includes Retirement Benefits, Disability, and Survivor Benefit costs.





## SUMMARY OF PLAN PROVISIONS

### 1. Membership.

Membership is mandatory for legislators entering on or after December 3, 1986, and optional for those who were members of the Maine State Retirement System on December 2, 1986. Membership ceases on the earlier of withdrawal of contributions, retirement, or death.

### 2. Member Contributions.

Members are required to contribute 7.65% of earnable compensation. Prior to July 1, 1993 members were required to contribute 4% of earnable compensation.

### 3. Average Final Compensation.

For purposes of determining benefits payable under the System, average final compensation is the average annual rate of earnable compensation for the three years of creditable service (not necessarily consecutive) as a legislator which produce the highest such average.

### 4. Creditable Service.

Creditable service includes the following:

- A. All legislative service as a member after December 2, 1986;
- B. All legislative service before December 3, 1986, for which contributions are made at the rate applicable to the Maine State Retirement System, including appropriate interest;
- C. Service while receiving disability benefits under the System; and
- D. All service creditable under the Maine State Retirement System, provided the member elects to have his own and the employer's contributions on behalf of the service transferred to the legislative system.

### 5. Service Retirement Benefits.

Eligibility for members with more than 10 years of creditable service on July 1, 1993: 25 years of creditable service, or attainment of age 60.

Eligibility for members with less than 10 years of creditable service on July 1, 1993: 25 years of creditable service, or attainment of age 62.

Eligibility for members not in service: attainment of age 60 with 10 years of creditable service (or five full terms as a legislator).

For eligibility, creditable service includes service under the Maine State Retirement System after termination of legislative service.

Benefit:  $1/50$  of average final compensation multiplied by years of creditable service, reduced for retirement before age 60 for members with at least 10 years creditable service on July 1, 1993; reduced for retirement before age 62 for members with less than 10 years creditable service on July 1, 1993; minimum \$100 per month if at least 10 years of creditable service.

Form of payment: life annuity.

### 6. Disability Retirement Benefits.

Eligibility: permanently mentally or physically incapacitated before normal retirement age while in service; unable to perform duties of own position; employed prior to October 16, 1992 and did not elect No Age Disability Option.





## SUMMARY OF PLAN PROVISIONS

(continued)

Benefit: 66-2/3% of average final compensation, reduced by employment earnings over \$10,000, and to the extent that the benefit, in combination with Workers' Compensation and Social Security, exceeds 80% of average final compensation.

Form of Payment: payment begins on termination of service and ceases on cessation of disability or after five years, unless the member is unable to engage in any gainful activity; in which case payments cease on the earlier of 10 years following normal retirement age or date the service retirement benefit exceeds the disability benefit.

Conversion to Service Retirement: during the period of disability, average final compensation is increased with cost-of-living adjustments and service is credited. On the date when service benefits reach a level of 66-2/3% of average final compensation or 10 years after the normal retirement date, if earlier, the disability benefit converts to a service retirement benefit based on service and pay at that point.

### 7. No Age Disability Retirement Benefits.

Eligibility: permanently mentally or physically incapacitated while in service; unable to perform duties of own position; employed on or after October 16, 1992 or employed prior to October 16, 1992 and elected the provisions of No Age Disability.

Benefit: 59% of average final compensation, reduced by employment earnings over \$10,000, and to the extent that the benefit, in combination with Workers' Compensation and Social Security, exceeds 80% of average final compensation.

Form of Payment: payment begins on termination of service and ceases on cessation of disability or after five years, unless the member is unable to engage in any gainful activity; in which case payments cease on the date the service retirement benefit exceeds the disability benefit.

Conversion to service retirement: during the period of disability average final compensation is increased with cost-of-living adjustments and service is credited. On the date when service benefits reach a level of 59% of average final compensation the disability benefit converts to a service retirement benefit based on service and pay at that point.

### 8. Ordinary Death Benefits Before Eligibility for Service Retirement.

Eligibility: death while active or disabled before eligibility for service retirement.

Benefit: member's accumulated contributions at time of death. A surviving spouse, children, parents, or other beneficiaries may be eligible to elect (in lieu of contributions) survivor benefits in monthly amounts varying by number of eligible survivors.

### 9. Ordinary Death Benefits After Eligibility for Service Retirement.

Eligibility: death while active or disabled after eligibility for retirement but before benefit commencement date.

Benefit: Option 2 (see item 13) is automatically effective with benefits payable to designated beneficiary, spouse, or parents; however, beneficiary may elect benefit in item 5 instead. Otherwise, accumulated contributions are payable to the estate.

### 10. Accidental Death Benefits.

Eligibility: death while active or disabled resulting from injury related to employment.





## SUMMARY OF PLAN PROVISIONS (continued)

Benefit: if the member leaves no dependent children, 2/3 of the member's average final compensation to the surviving spouse until death; if there remain surviving dependent children, an annual sum of the member's final average compensation shared between dependent children and surviving spouse (if any). Benefits are reduced by amounts payable under Workers' Compensation.

### 11. Refund of Contributions.

Eligibility: termination of service except by retirement or death.

Benefit: member's accumulated contributions with interest.

### 12. Cost-of-living Adjustments.

All retirement and survivor benefits are adjusted each year there is a percentage change in the Consumer Price Index, based on the Index. Cost-of-living adjustments are effective September 1 and are applied to all benefits which have been in payment for six months. For members with less than 10 years creditable service on July 1, 1993 who were active on July 1, 1993 cost-of-living adjustments are applied to all benefits which have been in payment for 12 months. The maximum increase or decrease is 4%. Earnable compensation used in determining benefits for disabled members is indexed similarly.

### 13. Methods of Payment of Service Retirement Benefits.

At retirement, a member must choose from the following methods of payment:

Full Benefit: Unadjusted benefit is paid for the life of the member only.

Option 1: Cash refund equal to the remaining employee contribution balance at the date of death (where the employee contribution balance has been reduced each month by the portion of the monthly benefit deemed to be provided by employee contributions).

Option 2: 100% joint and survivor annuity.

Option 3: 50% joint and survivor annuity.

Option 4: Any other method of benefit payment which provides a benefit that is actuarially equivalent to the full benefit and is approved by the Board.



## SUMMARY OF ACTUARIAL ASSUMPTIONS

This schedule summarizes the actuarial assumptions and methods used in the valuation.

### ACTUARIAL ASSUMPTIONS

1. Annual Rate of Investment Return: 8.0%
2. Annual Rate of Salary Increase: 6.0%
3. Annual Cost-of-living Increase: 4.0%
4. Expense Allowance: None
5. Retirement Age: Age 60 for members with at least 10 years creditable service on July 1, 1993.  
Age 62 for members with less than 10 years creditable service on July 1, 1993.
6. Probabilities of employment termination:

| <u>Age</u> | due to: <u>Death</u> | <u>Disability</u> | <u>Quitting</u> |
|------------|----------------------|-------------------|-----------------|
| 25         | .0006                | .0006             | .07             |
| 30         | .0008                | .0006             | .06             |
| 35         | .0011                | .0007             | .05             |
| 40         | .0016                | .0011             | .04             |
| 45         | .0029                | .0022             | .03             |
| 50         | .0053                | .0042             | .02             |
| 55         | .0085                | .0072             | .01             |

### FUNDING METHOD

1. Aggregate
2. Amortization Period: Future service lifetime (level percent of payroll)

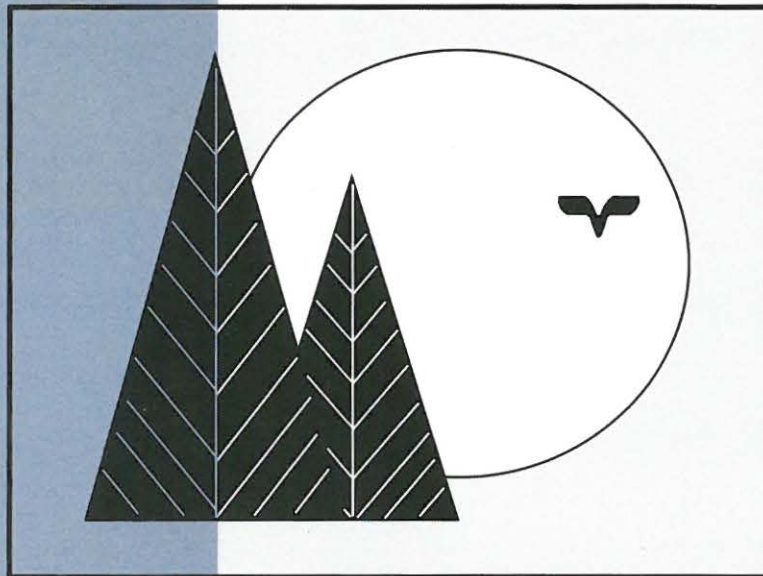
### ASSET VALUATION METHOD

Assets are valued at actuarial value. See Section II of the "Actuaries' Report: MSRS" for a detailed description.





# 1997 ACTUARIAL VALUATION: JUDICIAL RETIREMENT SYSTEM



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## PARTICIPANT DATA

|   |              |
|---|--------------|
| 1. Number of Active Employees                   | 52           |
| 2. Active Payroll                               | \$ 4,277,778 |
| 3. Number of Retired Members and Beneficiaries* | 30           |
| 4. Annual Retiree and Beneficiary Benefits      | \$ 1,450,866 |
| 5. Number of Vested and Inactive Members        | 2            |

## COST RESULTS

|                                 |        |
|---------------------------------|--------|
| 1. Employer Normal Cost**       | 14.99% |
| 2. Unfunded Actuarial Liability | 7.75%  |
| 3. Total Cost                   | 22.74% |

## ACCOUNTING INFORMATION

|  |               |
|--|---------------|
| 1. GASB Disclosure   |               |
| A. Actuarial Accrued Liability:  |               |
| 1. Retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits | \$ 16,244,791 |
| 2. Current employees   |               |
| - Accumulated employee contributions including allocated investment earnings                                   | 3,303,568     |
| - Employer-financed vested   | 6,202,061     |
| - Employer-financed non-vested   | 3,146,049     |
| Total Actuarial Accrued Liability  | \$ 28,896,469 |
| B. Actuarial Value of Assets   | \$ 23,199,772 |
| C. Unfunded Actuarial Accrued Liability  | \$ 5,696,697  |
| 2. Other Accounting Information  |               |
| A. Pension Benefit Obligation (PBO)  | \$ 27,979,423 |
| B. Cost Value of Assets  | \$ 22,665,891 |
| C. Unfunded PBO, (not less than \$0)   | \$ 5,313,532  |
| D. Market Value of Assets  | \$ 26,046,962 |
| E. Unfunded Accrued Liability, (not less than \$0)   | \$ 0          |
| F. Amortization Period   | 20 years      |

\*Includes three concurrent beneficiaries.

\*\*Employer Normal Cost includes Retirement Benefits, Disability and Survivor Benefit costs.





## **SUMMARY OF PLAN PROVISIONS**

### **Retirement On or After December 1, 1984**

#### **1. Membership.**

Membership is a condition of employment for all judges serving on or after December 1, 1984. Membership ceases on the earlier of withdrawal of contributions, retirement, or death.

#### **2. Member Contributions.**

Members are required to contribute 7.65% of earnable compensation. Prior to July 1, 1993 members were required to contribute 6.5% of earnable compensation.

#### **3. Average Final Compensation.**

For purposes of determining benefits payable under the System, average final compensation is the average annual rate of earnable compensation for the three years of creditable service (not necessarily consecutive) which produce the highest such average.

#### **4. Creditable Service.**

Creditable service includes the following:

- A. All judicial service as a member after November 30, 1984;
- B. All judicial service before December 1, 1984;
- C. Service while receiving disability benefits under the System; and
- D. All service creditable under the Maine State Retirement System provided the member elects to have his own and the employer's contributions on behalf of the service transferred to the judicial system.

#### **5. Service Retirement Benefits.**

Eligibility: 25 years of creditable service, or attainment of age 60 (62 if less than 10 years creditable service on July 1, 1993) with 10 years of creditable service, or attainment of age 70 and one year of service immediately before retirement.

Benefit: sum of (1) 1/50 of average final compensation multiplied by years of membership service and creditable service transferred from the Retirement System, and (2) 75% of November 30, 1984 salary for the position held at retirement, pro-rated for prior service less than 10 years. The benefit is reduced for retirement before age 60 if at least 10 years creditable service on July 1, 1993; reduced before age 62 if less than 10 years creditable service on July 1, 1993.

Maximum Benefit: 60% of average final compensation.

Minimum Benefit: for a judge in service and age 50 or older on December 1, 1984, 75% of salary on June 30, 1984 for the position held at retirement, increased by 6% per year from June 30, 1984, to June 30, 1989 or retirement date if earlier, and increased beyond June 30, 1989 by the cost-of-living increase granted the previous September.

Form of Payment: life annuity; except for a judge in service and age 50 before December 1, 1984, 50% joint and survivor annuity.

#### **6. Disability Retirement Benefits.**

Eligibility: permanently mentally or physically incapacitated while in service before eligibility for unreduced retirement; unable to perform duties of own position; a member prior to October 16, 1992 and did not elect No Age Disability option.





## SUMMARY OF PLAN PROVISIONS

### Retirement On or After December 1, 1984 (continued)

Benefit: 66-2/3% of average final compensation, reduced by the amount by which employment earnings plus the disability allowance exceeds the current salary of the position held at disability, and to the extent that the benefit, in combination with Workers' Compensation, exceeds 80% of the average final compensation. A member in service on November 30, 1984, may elect benefits applicable for retirement before December 1, 1984.

Form of Payment: payment begins on termination of service and ceases on cessation of disability or after five years, unless the member is unable to engage in any gainful activity; in which case payments cease on the earlier of attainment of age 70 and date the service retirement benefit exceeds the disability benefit.

Conversion to Service Retirement: during the period of disability average final compensation is increased with cost-of-living adjustments and service is credited. On the date when service benefits reach a level of 66-2/3% of average final compensation, or at age 70, if earlier, the disability benefit converts to a service retirement benefit based on service and pay at that point.

#### 7. No Age Disability Retirement Benefits

Eligibility: permanently mentally or physically incapacitated while in service; unable to perform duties of own position; employed on or after October 16, 1992 or employed prior to October 16, 1992 and elected the provisions of No Age Disability.

Benefit: 59% of average final compensation, reduced by the amount by which employment earnings plus the disability allowance exceeds the current salary of the position held at disability, and to the extent that the benefit, in combination with Workers' Compensation exceeds 80% of average final compensation. A member in service on November 30, 1984 may elect benefits applicable for retirement before December 1, 1984.

Form of payment: payment begins on termination of service and ceases on cessation of disability or after five years, unless the member is unable to engage in any gainful activity; in which case payments cease on the date the service retirement benefit exceeds the disability benefit.

Conversion to service retirement: during the period of disability average final compensation is increased with cost-of-living adjustments and service is credited. On the date when service benefits reach a level of 59% of average final compensation the disability benefit converts to a service retirement benefit based on service and pay at that point.

#### 8. Ordinary Death Benefits Before Eligibility for Service Retirement.

Eligibility: death while active or disabled before eligibility for service retirement.

Benefit: member's accumulated contributions at time of death. A surviving spouse, children, parents or other beneficiaries may be eligible to elect (in lieu of contributions) survivor benefits in monthly amounts varying by number of eligible survivors.

Minimum Benefit: for a judge in service prior to December 1, 1984, one-half of the judge's retirement benefit determined on date of death, payable to the spouse and/or dependent children.

#### 9. Ordinary Death Benefits After Eligibility for Service Retirement.

Eligibility: death after eligibility for retirement but before benefit commencement date.

Benefit: option 2 (see item 13) is automatically effective with benefits payable to designated beneficiary, spouse, or parents; however, beneficiary may elect benefit described in item 5 instead. Otherwise, accumulated contributions are payable to the estate.





## **SUMMARY OF PLAN PROVISIONS**

### **Retirement On or After December 1, 1984**

(continued)

#### **10. Accidental Death Benefits.**

Eligibility: death while active or disabled resulting from injury related to employment.

Benefit: if the member leaves no dependent children, two-thirds of the member's average final compensation to the surviving spouse until death; if there remain surviving dependent children, an annual sum of the member's average final compensation shared between dependent children and surviving spouse (if any).

#### **11. Refund of Contributions.**

Eligibility: termination of service except by retirement or death.

Benefit: member's accumulated contributions with interest.

#### **12. Cost-of-living Adjustments.**

Except as described below, all retirement and survivor benefits are adjusted each year there is a percentage change in the Consumer Price Index (CPI), based on the Index. Cost-of-living adjustments are effective September 1 and are applied to all benefits which have been in payment for six months. For members with less than 10 years creditable service on July 1, 1993, who were active on July 1, 1993, the cost-of-living adjustments are applied to all benefits which have been in payment for 12 months. The maximum increase or decrease is 4%. Earnable compensation used in determining benefits for disabled members is indexed similarly.

Minimum benefits are increased 6% per year from July, 1985, through July, 1989, and as described above thereafter.

#### **13. Methods of Payment of Service Retirement Benefits**

At retirement, a member must choose from the following methods of payment:

Full Benefit: Unadjusted benefit is paid for the life of the member only.

Option 1: Cash refund equal to the remaining employee contribution balance at the date of death (where the employee contribution balance has been reduced each month by the portion of the monthly benefit deemed to be provided by employee contributions.)

Option 2: 100% joint and survivor annuity.

Option 3: 50% joint and survivor annuity.

Option 4: Any other method of benefit payment which provides a benefit that is actuarially equivalent to the full benefit and is approved by the Board.

### **Retirement Prior to December 1, 1984**

#### **1. Currently Effective Annual Salary.**

For determination of benefit payments, currently effective annual salary is the salary on June 30, 1984 for the position last held, increased by 6% per year each July 1, beginning July 1, 1984.



## **SUMMARY OF PLAN PROVISIONS**

### **Retirement Prior to December 1, 1984**

**(continued)**

#### **2. Regular Retirement Benefits.**

Eligibility: attainment of age 70 with seven years of service, or attainment of age 65 with 12 years of service, or attainment of age 60 with 20 years of service.

Benefit: three-quarters of currently effective annual salary.

#### **3. Disability Benefits.**

Three-quarters of currently effective annual salary.

#### **4. Survivor Benefits.**

Three-eighths of currently effective annual salary, payable to the surviving spouse or dependent children.





## SUMMARY OF ACTUARIAL ASSUMPTIONS

This schedule summarizes the actuarial assumptions and methods used in the valuation.

### ACTUARIAL ASSUMPTIONS

- |   |      |
|---|------|
| 1. Annual Rate of Investment Return:        | 8.0% |
| 2. Annual Rate of Salary Increase:          | 6.0% |
| 3. Annual Cost-of-living Increase:          | 4.0% |
| 4. Expense Allowance:                       | None |
| 5. Retirement Age:                          | 60   |
| 6. Probabilities of employment termination: |      |

| <u>Age</u> | <u>due to:</u> | <u>Death</u> | <u>Disability</u> | <u>Quitting</u> |
|------------|----------------|--------------|-------------------|-----------------|
| 25         |                | .0006        | .0006             | .07             |
| 30         |                | .0008        | .0006             | .06             |
| 35         |                | .0011        | .0007             | .05             |
| 40         |                | .0016        | .0011             | .04             |
| 45         |                | .0029        | .0022             | .03             |
| 50         |                | .0053        | .0042             | .02             |
| 55         |                | .0085        | .0072             | .01             |

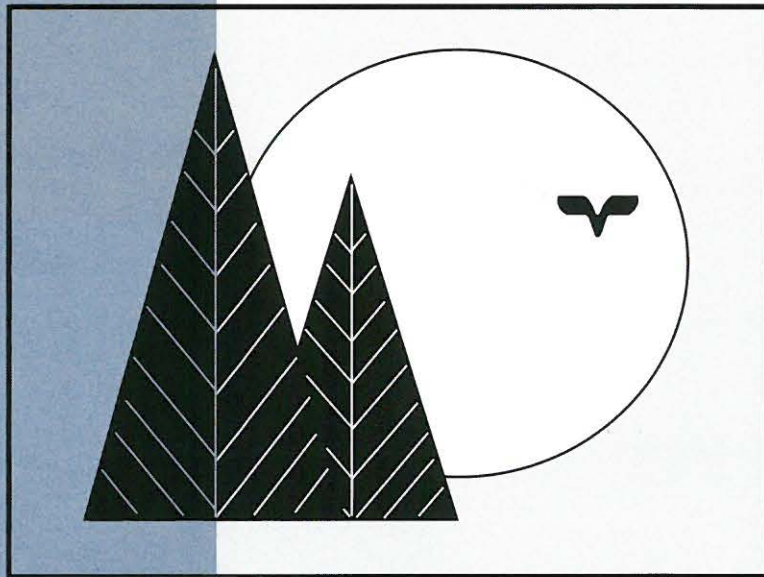
### FUNDING METHOD

1. Entry Age Normal
2. Amortization Period: 20 years

### ASSET VALUATION METHOD

Assets are valued at actuarial value. See Section II of the "Actuaries' Report: MSRS" for a detailed description.

# 1997 ACTUARIAL VALUATION: CONSOLIDATED PLAN FOR PARTICIPATING LOCAL DISTRICTS



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## SECTION I EXECUTIVE SUMMARY

### Overview

As of June 30, 1997, there were 224 participating local districts in the Consolidated Plan for Participating Local Districts (PLDs) of the Maine State Retirement System. This report presents the results of our June 30, 1997, actuarial valuation for this Plan. Comments on the findings of our valuation are presented below. Following our comments are detailed tables of the June 30, 1997, results for the Regular Plans and Special Plans that comprise the Consolidated Plan.

This year's valuation produces a Pooled Unfunded Actuarial Liability (PUAL) which will be effective for the first time since the creation of the Consolidated Plan. Due to investment returns greater than the assumed 8% and employee salary increases and post-retirement COLAs at less than the actuarially assumed rates, the PUAL is negative as of this valuation date.

The negative PUAL is translated into a reduction in the normal cost rates otherwise payable. The reduction varies by the plan elected, however, in the aggregate it is calculated to be -2.0% for the Regular Plans and -3.0% for the Special Plans. In general, the reduction is higher for the Special Plans because the asset gains experienced by those plans were higher as a percentage of the total payroll, that is, the Regular Plans experienced asset gains of around \$34 million and spread those over a payroll base of \$166 million, while the Special Plans experienced asset gains of around \$25 million and spread them over a payroll base of \$52 million.

In the following sections of the report we present detailed results on Plan Assets (Section II), Plan Liabilities (Section III), and Plan Contributions (Section IV). This report also contains four Appendices. Appendix A displays a list of the 224 PLDs that had entered the plan through July 1, 1996, and their benefit plan elections. Appendix B presents membership data and profiles and Appendix C provides a summary of benefit provisions of the plans within the Plan. Finally, an outline of all actuarial assumptions and procedures used in our valuation is contained in Appendix D.

### Valuation Comments

#### Assets

As of June 30, 1997, the Plan had assets, when measured on a market value basis, of \$1,038 million. Of this total, \$640 million was allocated to the Regular Plans and \$398 million to the Special Plans. On an actuarial basis, using a method which smooths market fluctuations, the assets were valued at \$925 million. Of this total, \$571 million was in the Regular Plans and \$354 million was in the Special Plans.

#### Liabilities

Throughout this report we discuss two types of liabilities: (1) Unfunded Actuarial Liabilities and (2) Unfunded Accrued Benefit Liabilities. In Section III, we discuss in detail the different uses and definitions of these terms.

In general, Actuarial Liabilities are calculated for purposes of determining future contributions. Since actuarial funding methods are used to determine costs for future retirement benefits, unfunded actuarial liabilities will include future increases in pay and service credits. The calculated amount of a plan's actuarial liabilities is directly dependent on the particular funding method used by the actuary; use of different funding methods would provide entirely different results, even though none of the factors (e.g., inflation, salary growth, etc.) is different. In this valuation, the "Entry Age Normal" method of funding was used.

As of June 30, 1997, the total actuarial liability for the Plan was \$1,069 million. Comparing this to the actuarial value of assets of \$925 million produces an unfunded actuarial liability of \$144 million. \$185 million has been allocated to PLDs as the IUUAL, which yields a pooled surplus of \$41 million.

The second type of liability presented in this report is the Accrued Benefit Liability. This represents the liabilities for all benefits to be paid in the future, based on members' earnings and service credits as of the valuation date. The





difference between this figure and plan assets represents the Unfunded Accrued Benefit Liability. As of June 30, 1997, there is no Unfunded Accrued Benefit Liability.

Because of the changed GASB requirements, there is no Pension Benefit Obligation (PBO) disclosure in this valuation and there will not be a PBO disclosure in future valuations. GASB 5, which required the PBO disclosure, has been superseded by GASB 25, which requires the disclosures included in this valuation in Table III-1.

More detailed information on plan liabilities is presented in Section III.

## Contributions

In Section IV of this report, we present detailed information on the development of Plan contribution rates, calculated as of June 30, 1997. In addition, Section IV discusses the application of the contribution rates for fiscal year budget purposes.

Contributions to the Plan consist of:

- a "normal cost contribution", for the portion of projected liabilities attributable to service of members during the year following the valuation date,
- a "pooled unfunded actuarial liability contribution", for the excess of projected liabilities allocated to service to date over assets on hand and receivables from PLDs entering the Plan with Initial Unfunded Unpooled Actuarial Liabilities (IUUALs).

This is the first year that the PUAL will be reflected in the FY 1999 contribution rates. These rates are summarized in Table IV-1.

## Members and Benefit Recipients

As of June 30, 1997, the Consolidated Plan consisted of 8,768 active members, 5,818 benefit recipients, and 284 vested inactive members. The total annual payroll of active members in all plans was \$218 million as of June 30, 1997. Appendix B of this report presents more detail regarding members and benefit recipients.



## SUMMARY OF PRINCIPAL RESULTS TOTAL

| 1. Participant Data  | June 30, 1997      | June 30, 1996      |
|--|--------------------|--------------------|
| Number of:   |                    |                    |
| Active Members   | 8,768              | 5,278              |
| Retired Members, Beneficiaries,<br>Disabled Members and Survivors  | 5,818              | 3,257              |
| Vested Inactive Members  | 284                | 155                |
| Total Members and Benefit Recipients   | 14,870             | 8,690              |
| <br>Annual Salaries of Active Members  | <br>\$ 218,447,415 | <br>\$ 132,071,920 |
| <br>Annual Benefits to Recipients  | <br>\$ 45,722,411  | <br>\$ 24,317,401  |
| <br>2. Assets and Liabilities  |                    |                    |
| <b>Funding Liability</b><br>(Based on 224 PLDs at June 30, 1996 and 224 PLDs at June 30, 1997)             |                    |                    |
| Actuarial Liability  | \$ 1,068,530,453   | \$ 1,006,597,165   |
| Actuarial Value of Assets  | 924,525,993        | 806,819,972        |
| Unfunded Actuarial Liability   | \$ 144,004,460     | \$ 199,777,193     |
| Unpooled Portion (IUUAL)   | 185,302,879        | 184,513,630        |
| Pooled Portion   | (\$ 41,298,419)    | \$ 15,263,562      |
| <br><b>FASB Accounting Liability</b><br>(Based on 103 PLDs at June 30, 1996 and 224 PLDs at June 30, 1997) |                    |                    |
| Accrued Benefit Liability  | \$ 877,950,120     | \$ 507,269,145     |
| Market Value of Assets   | 1,037,988,379      | 522,524,066        |
| Unfunded Accrued Benefit Liability   | \$ 0               | \$ 0               |
| <br>Accrued Benefit Funding Ratio  | <br>118%           | <br>103%           |





## SUMMARY OF PRINCIPAL RESULTS

### REGULAR PLANS A, A-1, & B

#### 1. Participant Data

|   | June 30, 1997  | June 30, 1996  |
|---|----------------|----------------|
| Number of:  |                |                |
| Active Members  | 7,261          | 4,425          |
| Retired Members, Beneficiaries,<br>Disabled Members and Survivors | 4,350          | 2,475          |
| Vested Inactive Members   | 275            | 141            |
| Total Members and Benefit Recipients                              | 11,886         | 7,041          |
| Annual Salaries of Active Members                                 | \$ 166,006,136 | \$ 103,426,291 |
| Annual Benefits to Recipients                                     | \$ 26,935,786  | \$ 14,817,706  |

#### 2. Assets and Liabilities

##### Funding Liability

(Based on 224 PLDs at June 30, 1996 and 224 PLDs at June 30, 1997)

|                              |                 |                |
|------------------------------|-----------------|----------------|
| Actuarial Liability          | \$ 630,458,329  | \$ 602,333,205 |
| Actuarial Value of Assets    | 570,278,721     | 499,225,379    |
| Unfunded Actuarial Liability | \$ 60,179,608   | \$ 103,107,826 |
| Unpooled Portion (IUUAL)     | 88,094,825      | 88,311,326     |
| Pooled Portion               | (\$ 27,915,217) | \$ 14,796,499  |

##### FASB Accounting Liability

(Based on 103 PLDs at June 30, 1996 and 224 PLDs at June 30, 1997)

|                                    |                |                |
|------------------------------------|----------------|----------------|
| Accrued Benefit Liability          | \$ 483,006,537 | \$ 289,577,113 |
| Market Value of Assets             | 640,266,136    | 338,942,914    |
| Unfunded Accrued Benefit Liability | \$ 0           | \$ 0           |
| Accrued Benefit Funding Ratio      | 133%           | 117%           |



## SUMMARY OF PRINCIPAL RESULTS SPECIAL PLANS 1-4 & 1A-4A

| 1. Participant Data  | <u>June 30, 1997</u> | <u>June 30, 1996</u> |
|--|----------------------|----------------------|
| Number of:   |                      |                      |
| Active Members   | 1,507                | 853                  |
| Retired Members, Beneficiaries,<br>Disabled Members and Survivors                                      | 1,468                | 782                  |
| Vested Inactive Members  | <u>9</u>             | <u>14</u>            |
| Total Members and Benefit Recipients   | 2,984                | 1,649                |
| <br>Annual Salaries of Active Members  | <br>\$ 52,441,279    | <br>\$ 28,645,629    |
| <br>Annual Benefits to Recipients  | <br>\$ 18,786,625    | <br>\$ 9,499,695     |
| <br>2. Assets and Liabilities  |                      |                      |
| <b>Funding Liability</b><br>(Based on 224 PLDs at June 30, 1996 and 224 PLDs at June 30, 1997)         |                      |                      |
| Actuarial Liability  | \$ 438,072,124       | \$ 404,263,960       |
| Actuarial Value of Assets  | <u>354,247,272</u>   | <u>307,594,593</u>   |
| Unfunded Actuarial Liability   | \$ 83,824,852        | \$ 96,669,367        |
| Unpooled Portion (IUUAL)   | <u>97,208,054</u>    | <u>96,202,304</u>    |
| Pooled Portion   | (\$ 13,383,202)      | \$ 467,063           |
| <b>FASB Accounting Liability</b><br>(Based on 103 PLDs at June 30, 1996 and 224 PLDs at June 30, 1997) |                      |                      |
| Accrued Benefit Liability  | \$ 394,943,583       | \$ 217,692,032       |
| Market Value of Assets   | <u>397,722,243</u>   | <u>183,581,152</u>   |
| Unfunded Accrued Benefit Liability   | \$ 0                 | \$ 34,110,880        |
| <br>Accrued Benefit Funding Ratio  | <br>101%             | <br>84%              |





## SECTION II ASSETS

In this section we present the value assigned to assets held by the Plan. These assets are valued on two different bases: the market value and the actuarial value.

### Market Value of Assets

For accounting statement purposes, Plan assets are valued at current market values. Briefly stated, these values represent the "snapshot" or "cash-out" value of Plan assets as of the valuation date.

### Actuarial Value of Assets

The market value of assets, representing a "liquidation" value of the funds, is not a good measure of the System's ongoing ability to meet its obligations. Ongoing funding requirements established using market values are subject to significant variability because of the volatility of market values.

As a consequence, actuarial valuations employ a technique for determining the actuarial value of assets which dampens the swings in market value. The specific technique adopted in this valuation recognizes in a given year one-third of the investment return that is in excess of the 8.00% actuarial assumption for investment return. The following is a step-by-step description:

- Step 1:** Determine the total return on the investments of the Plan using the full investment return (including capital gains) measured by the difference in the actuarial value of the assets at the beginning of the fiscal year just ended (adjusted for cash flow) and the market value of assets at the end of the fiscal year. The calculation of this return is:
- (a) Increase in assets = Market value of assets at the end of the year minus actuarial value of assets at the end of the prior year adjusted for net cash flow for the current year (contributions minus benefit payment) [= \$1,165,975,162].
  - (b) Adjusted actuarial value of assets = Actuarial value of assets at the end of the prior year plus one-half of net cash flow for the current year [= \$3,980,632,847].
  - (c) Return = (a) (Increase in assets) divided by (b) (Adjusted actuarial value of assets) [= 29.29%].
- Step 2:** Calculate the excess of the actual return determined in Step 1 over the expected return for the same year according to the actuarial assumption (8.00%). [29.29% - 8.00% = 21.29%]
- Step 3:** Calculate an adjusted rate that is equal to the rate expected by the actuarial assumption (8.00%) plus one-third of the rate determined in Step 2. [8.00% + (1/3 × 21.29%) = 15.10%]
- Step 4:** The actuarial value of assets equals the amount that would have existed if the actual return on the prior year's actuarial value of assets had been the theoretical rate determined in Step 3 applied to the prior year's actuarial value of assets.



## TABLE II-1 ASSET ALLOCATION

|                 | Regular Plans  | Special Plans  | Total            |
|-----------------|----------------|----------------|------------------|
| Market Value    | \$ 640,266,136 | \$ 397,722,243 | \$ 1,037,988,379 |
| Actuarial Value | \$ 570,278,721 | \$ 354,247,272 | \$ 924,525,993   |





## SECTION III LIABILITIES

### Actuarial Liabilities

A fundamental principle in financing the liabilities of a retirement program is that the cost of its benefits should be related to the period in which benefits are earned, rather than to the period of benefit distribution. There are several methods currently used by actuaries in making this allocation.

The method used for this valuation is referred to as the "entry age normal actuarial cost method." Under this method, a level-percent-of-pay employer cost is determined for each plan that, along with member contributions, will pay for projected benefits at retirement for a new entrant into the plan. It is assumed applicable to all active plan members. The level percent of pay is called the normal cost rate, and the product of that rate and payroll is the normal cost.

The actuarial liability is that portion of the present value of projected benefits that will not be paid by future employer normal cost contributions and member contributions. If this liability is greater than the actuarial value of plan assets as of the same date, the difference is referred to as the unfunded actuarial liability.

Upon entering the Consolidated Plan, each PLD had its individual actuarial liability calculated. PLDs having an Initial Unpooled Unfunded Actuarial Liability (IUUAL) will pay this liability on a scheduled basis, in addition to making the Normal Cost Contribution required by the plan(s) in which it participates. Each year the valuation for the Consolidated Plan will calculate the Pooled Unfunded Actuarial Liability of the Regular and of the Special Plans under the Plan, and adjust the employer contribution rates accordingly. Benefit improvements, actuarial gains and losses, and changes in actuarial assumptions and methodologies, if any, will have an effect on the total actuarial liabilities of the Regular and of the Special Plans under the Plan and on the portion of these that are unfunded. In Table III-1 we have summarized the actuarial liabilities as of June 30, 1997.

### Accounting Statement Information

Statement No. 35 of the Financial Accounting Standards Board requires that every pension plan disclose certain information regarding the status of the plan.

As directed by the above-referenced accounting statements, the liabilities shown in Table III-2, Accrued Benefit Liabilities, do not include any projections for future creditable service and pay increases.

The GASB released a new pronouncement (Statement #25) which replaced the disclosures formerly required by Statement #5. The figures shown in Table III-1 are suitable for the new Statement #25 disclosures. This is the first valuation report in which we are not providing the PBO disclosure statement formerly required by GASB Statement #5.

Both types of present values of benefits are determined assuming that the plan is ongoing and members continue to terminate employment, retire, etc., in accordance with the actuarial assumptions.

All PLDs that enter the Consolidated Plan cease to be individual sponsors of a "Single-Employer Defined Benefit Pension Plan" and instead become participants in a "Cost-Sharing Multiple-Employer Defined Benefit Pension Plan." As such, the disclosures made by individual PLDs should reflect the assets and liabilities of the Regular and/or Special Plan(s) under the Consolidated Plan in which a PLD participates and not those of the PLD itself.





**TABLE III-1**  
**ACTUARIAL LIABILITIES**

|   | <u>Regular Plans</u> | <u>Special Plans</u> | <u>Total</u>     |
|---|----------------------|----------------------|------------------|
| 1. Present Value of Benefits                                | \$ 843,951,411       | \$ 507,480,943       | \$ 1,351,432,354 |
| 2. Present Value of Future Contributions                    |                      |                      |                  |
| a. Employer Normal Cost                                     | 114,785,077          | 44,061,593           | 158,846,670      |
| b. Employee Contributions                                   | 98,708,005           | 25,347,226           | 124,055,231      |
| 3. Actuarial Liability<br>(1) - (2)                         | \$ 630,458,329       | \$ 438,072,124       | \$ 1,068,530,453 |
| 4. Actuarial Value of Assets                                |                      |                      |                  |
| a. Total Invested Assets                                    | \$ 602,515,917       | \$ 370,775,492       | \$ 973,291,409   |
| b. IUUAL Surpluses in Individual PLD Accounts               | 32,237,196           | 16,528,220           | 48,765,416       |
| c. Valuation Assets (a) - (b)                               | \$ 570,278,721       | \$ 354,247,272       | \$ 924,525,993   |
| 5. Unfunded Actuarial Liability                             |                      |                      |                  |
| a. Total Unfunded Liability (3) - (4c)                      | \$ 60,179,608        | \$ 83,824,852        | \$ 144,004,460   |
| b. Individual PLD Unpooled Liability (IUUAL)                | 88,094,825           | 97,208,054           | 185,302,879      |
| c. Pooled Unfunded Actuarial Liability<br>(a) - (b)         | \$ (27,915,217)      | \$ (13,383,202)      | \$ (41,298,419)  |
| 6. Amortization over 15 Years                               | \$ (3,261,322)       | \$ (1,563,553)       | \$ (4,824,875)   |
| 7. Payroll  | \$ 166,006,136       | \$ 52,441,279        | \$ 218,447,415   |
| 8. Pooled Unfunded Liability Contribution Rate<br>(6) ÷ (7) | -2.0%                | -3.0%                | -2.2%            |

NOTE: All PLDs that enter the Consolidated Plan cease to be individual sponsors of a "Single-Employer Defined Benefit Pension Plan" and instead become participants in a "Cost-Sharing Multiple-Employer Defined Benefit Pension Plan." As such, the disclosures made by individual PLDs should reflect the assets and liabilities of the Regular and/or Special Plan(s) under the Consolidated Plan in which a PLD participates and not those of the PLD itself.

**TABLE III-2**  
**ACCRUED BENEFIT LIABILITY**

|   | <u>Regular Plans</u> | <u>Special Plans</u> | <u>Total</u>   |
|---|----------------------|----------------------|----------------|
| 1. Present Value of Accrued Benefits                                |                      |                      |                |
| a. Vested Inactive Members  | \$ 8,107,139         | \$ 65,461            | \$ 8,172,600   |
| b. Retired Members, Beneficiaries<br>Disabled Members and Survivors | 263,552,850          | 232,379,498          | 495,932,348    |
| c. Active Members   | 211,346,548          | 162,498,624          | 373,845,172    |
| d. Total  | \$ 483,006,537       | \$ 394,943,583       | \$ 877,950,120 |
| 2. Invested Assets (Market Value)                                   | 640,266,136          | 397,722,243          | 1,037,988,379  |
| 3. Unfunded Present Value of Accrued Benefits<br>(1) - (2)          | \$ 0                 | \$ 0                 | \$ 0           |
| 4. Accrued Benefit Funding<br>Ratio (2)/(1)                         | 133%                 | 101%                 | 118%           |





## SECTION IV CONTRIBUTIONS

### General Comments

Under established procedures, employer contribution rates based on this June 30, 1997, actuarial valuation are used to determine Fiscal Year 1999 contributions. In this context, the term "employer contribution rate" means the percentage that is applied by each PLD to its active member payroll to determine the PLD's actual employer contribution amount.

In addition to the applicable employer contribution rate, each individual PLD will make a dollar payment or receive a dollar credit based on its IUUAL to be added to (or subtracted from) the amount derived by applying the employer contribution rate to the participant payroll.

### Description of Rate Components

The Entry Age Normal funding method was used to develop the employer contribution rates in this section. Under this funding method, as with most other actuarial funding methods, a total contribution rate is determined which consists of two elements: the normal cost rate and the pooled unfunded actuarial liability rate.

#### Normal Cost Rate

For each of the Regular and Special Plans in the Consolidated Plan, an individual entry age normal cost rate was determined for a typical new entrant. This rate was determined by taking the value, as of age at entry into the plan, of the typical member's projected future benefits (including retirement, death and disability benefits), reducing it by the value of future member contributions, and dividing it by the value, also as of the member's entry age, of the member's expected future salary. The normal cost rate, so determined separately for each Regular and each Special Plan, was assumed applicable to all active members of each of the plans.

#### Pooled Unfunded Actuarial Liability Rate

The unfunded actuarial liability under the Entry Age Normal method equals the present value, at time of valuation, of future benefits less the present value of future normal costs, future member contributions, future IUUAL payments and current assets. Under the Consolidated Plan, a Pooled Unfunded Actuarial Liability Rate is calculated for the Regular Plans as a group and for the Special Plans as a group. The rate for each group is then allocated to each plan within the Regular Plans and to those within the Special Plans, respectively, on the basis of total normal cost plus employee contributions for each such plan. That is, those plans which constitute a larger portion of the overall liability will pay a larger portion of the pooled UAL rate or receive a larger credit if the rate is negative.

#### IUUAL Payments/(Credits)

In addition to employer contributions required under the Consolidated Plan, each individual PLD in the Consolidated Plan that has an IUUAL continues to make payments on its IUUAL. Where IUUAL payments are due, each PLD makes payment of a specific dollar amount. Where a PLD had, at the time of entry into the Consolidated Plan, surplus assets, the PLD uses a portion of the surplus toward payment of its employer contributions to the Consolidated Plan. Credit transactions, also of specific dollar amounts, are accomplished by MSRS accounting entries.

### Employer Contribution Rate Summary

In Table IV-1 we present employer contribution rates applicable for determining the Fiscal Year 1999 contributions to the Plan, using the cost methods described above. These were developed using actuarial assumptions and methods described in Appendix D.





**TABLE IV-1**  
**EMPLOYER CONTRIBUTION RATES\***  
**FISCAL YEAR 1999**

|                            | Pooled Unfunded<br>Actuarial Liability |                          |                          |                         |
|----------------------------|--|--------------------------|--------------------------|-------------------------|
|                            | <u>Normal<br/>Cost**</u>               | <u>Regular<br/>Plans</u> | <u>Special<br/>Plans</u> | <u>All<br/>Benefits</u> |
| <u>Plans with COLA</u>     |  |                          |                          |                         |
| Regular Employees Plan A   | 8.0%                                   | -2.1%                    |                          | 5.9%                    |
| Regular Employees Plan B   | 5.0%                                   | -1.3%                    |                          | 3.7%                    |
| Special Plan 1             | 19.0%                                  |                          | -4.3%                    | 14.7%                   |
| Special Plan 2             | 11.7%                                  |                          | -2.7%                    | 9.0%                    |
| Special Plan 3             | 15.4%                                  |                          | -3.5%                    | 11.9%                   |
| Special Plan 4             | 8.4%                                   |                          | -1.9%                    | 6.5%                    |
| <u>Plans with No COLA</u>  |  |                          |                          |                         |
| Regular Employees Plan A-1 | 4.7%                                   | -1.2%                    |                          | 3.5%                    |
| Special Plan 1-A           | 11.7%                                  |                          | -2.7%                    | 9.0%                    |
| Special Plan 2-A           | 6.5%                                   |                          | -1.5%                    | 5.0%                    |
| Special Plan 3-A           | 8.7%                                   |                          | -2.0%                    | 6.7%                    |
| Special Plan 4-A           | 4.7%                                   |                          | -1.1%                    | 3.6%                    |

*\*IUUAL payments are made in addition to these costs and IUUAL credits are taken against these costs.*

*\*\* Includes costs of ancillary benefits*





## APPENDIX A PARTICIPATING LOCAL DISTRICTS PLAN ELECTIONS

| PLD Name                          | PLD # | Regular Plan | Special Plan | Special Plan | COLA | Entry Date |
|-----------------------------------|-------|--------------|--------------|--------------|------|------------|
| Androscoggin County               | 67    | A            | 1            |              | Yes  | 7/1/94     |
| Androscoggin Valley COG           | 231   | A            |              |              | Yes  | 7/1/96     |
| Aroostook County                  | 106   | A            |              |              | Yes  | 7/1/94     |
| Auburn Housing Authority          | 145   | A            |              |              | Yes  | 7/1/94     |
| Auburn Lewiston Airport           | 256   | A            |              |              | Yes  | 7/1/96     |
| Auburn Public Library             | 43    | A-1          |              |              | No   | 7/1/96     |
| Auburn Water and Sewer District   | 52    | A            |              |              | Yes  | 7/1/94     |
| Augusta Sanitary District         | 64    | A            |              |              | Yes  | 7/1/94     |
| Augusta Water District            | 34    | A            |              |              | Yes  | 7/1/94     |
| Bangor Housing Authority          | 288   | A            |              |              | Yes  | 7/1/94     |
| Bangor Public Library             | 22    | A            |              |              | Yes  | 7/1/96     |
| Bangor Water District             | 59    | B*           |              |              | Yes  | 7/1/96     |
| Bath Water District               | 19    | A            |              |              | Yes  | 7/1/94     |
| Belfast Water District            | 132   | A            |              |              | Yes  | 7/1/95     |
| Berwick Sewer District            | 207   | A            |              |              | Yes  | 7/1/94     |
| Boothbay Harbor Water District    | 21    | A            |              |              | Yes  | 7/1/96     |
| Brewer Housing Authority          | 248   | A            |              |              | Yes  | 7/1/94     |
| Brewer Water District             | 68    | A-1          |              |              | No   | 7/1/96     |
| Bridgton Water District           | 253   | A-1          |              |              | No   | 7/1/96     |
| Brunswick Public Library          | 273   | A            |              |              | FO   | 7/1/95     |
| Brunswick Sewer District          | 72    | A            |              |              | Yes  | 7/1/96     |
| Caribou Police and Fire           | 208   | A-1          | 1-A          | 2-A          | No   | 7/1/96     |
| Carrabassett Valley               | 277   | A            |              |              | FO   | 7/1/94     |
| Cheverus High School              | 203   |              | 2-A          |              | No   | 7/1/96     |
| City of Auburn                    | 27    | A            | 2            |              | Yes  | 7/1/94     |
| City of Augusta                   | 23    | A            | 1            | 2            | Yes  | 7/1/94     |
| City of Bangor                    | 20    | A            | 1            | 2            | Yes  | 7/1/96     |
| City of Bath                      | 73    |              | 2            | 3            | Yes  | 7/1/96     |
| City of Belfast                   | 35    | A            | 2            |              | Yes  | 7/1/96     |
| City of Biddeford                 | 158   | A-1          |              |              | No   | 7/1/96     |
| City of Brewer                    | 63    | A            | 2            |              | Yes  | 7/1/96     |
| City of Calais                    | 36    | A            |              |              | FO   | 7/1/96     |
| City of Ellsworth                 | 13    | A            | 4            |              | Yes  | 7/1/95     |
| City of Gardiner                  | 24    | A-1          | 3-A          |              | No   | 7/1/96     |
| City of Hallowell                 | 160   | A            |              |              | Yes  | 7/1/96     |
| City of Lewiston                  | 48    | A            | 1            | 2            | Yes  | 7/1/96     |
| City of Old Town                  | 111   | A-1          | 2-A          |              | No   | 7/1/95     |
| City of Portland                  | 2     | A            | 1            | 2            | Yes  | 7/1/95     |
| City of Rockland                  | 18    | A            | 3            |              | Yes  | 7/1/95     |
| City of Saco                      | 192   | A-1          | 2-A          |              | No   | 7/1/95     |
| City of South Portland            | 9     | A            | 2            |              | Yes  | 7/1/95     |
| Community School District #12     | 252   | A            |              |              | Yes  | 7/1/96     |
| Community School District # 915   | 233   | A            |              |              | Yes  | 7/1/95     |
| Corinna Sewer District            | 251   | A-1          |              |              | No   | 7/1/96     |
| Cumberland County                 | 5     | A            |              |              | Yes  | 7/1/96     |
| Dover-Foxcroft Water District     | 137   | A            |              |              | Yes  | 7/1/94     |
| Eagle Lake Water & Sewer District | 274   | A            |              |              | Yes  | 7/1/96     |
| Erskine Academy                   | 249   | A-1          |              |              | No   | 7/1/94     |
| Falmouth Memorial Library         | 58    | A            |              |              | Yes  | 7/1/96     |
| Farmington Village Corp.          | 118   | A-1          |              |              | No   | 7/1/94     |





## PARTICIPATING LOCAL DISTRICTS PLAN ELECTIONS (continued)

| <u>PLD Name</u>                                    | <u>Regular<br/>PLD #</u> | <u>Special<br/>Plan</u> | <u>Special<br/>Plan</u> | <u>Plan</u> | <u>Entry<br/>COLA</u> | <u>Date</u> |
|--|--------------------------|-------------------------|-------------------------|-------------|-----------------------|-------------|
| Fort Fairfield Housing Authority                   | 275                      | A                       |                         |             | FO                    | 7/1/94      |
| Fort Fairfield Utilities District                  | 131                      | A                       |                         |             | Yes                   | 7/1/96      |
| Gardiner Water District                            | 221                      | A-1                     |                         |             | No                    | 7/1/94      |
| Gould Academy                                      | 205                      | A-1                     |                         |             | No                    | 7/1/96      |
| Hampden Water District                             | 183                      | A-1                     |                         |             | No                    | 7/1/96      |
| Hancock County                                     | 56                       | A                       |                         |             | Yes                   | 7/1/94      |
| Houlton Water District                             | 26                       | A                       |                         |             | Yes                   | 7/1/95      |
| Indian Township Tribal Gov't                       | 244                      | A-1                     |                         |             | No                    | 7/1/96      |
| Jackman Water District                             | 226                      | A                       |                         |             | Yes                   | 7/1/96      |
| Kennebec County                                    | 47                       | A                       |                         |             | Yes                   | 7/1/95      |
| Kennebec Sanitary Treatment District               | 220                      | A                       |                         |             | FO                    | 7/1/95      |
| Kennebec Water District                            | 31                       | A                       |                         |             | Yes                   | 7/1/96      |
| Kennebunk Light and Power Co.                      | 62                       | A                       |                         |             | Yes                   | 7/1/94      |
| Kennebunk Sewer District                           | 201                      | A-1                     |                         |             | No                    | 7/1/94      |
| Kennebunk, Kennebunkport & Wells<br>Water District | 255                      | A-1                     |                         |             | No                    | 7/1/96      |
| Kittery Water District                             | 12                       | A                       |                         |             | Yes                   | 7/1/94      |
| Lew/Aub. Water Pollution Control<br>Authority      | 163                      | A                       |                         |             | FO                    | 7/1/96      |
| Lewiston Housing Authority                         | 154                      | A                       |                         |             | Yes                   | 7/1/94      |
| Lewiston-Auburn 9-1-1                              | 291                      | A                       |                         |             | Yes                   | 7/1/94      |
| Lincoln Academy                                    | 134                      | A                       |                         |             | Yes                   | 7/1/94      |
| Lincoln Sanitary District                          | 219                      | A                       |                         |             | Yes                   | 7/1/94      |
| Lincoln Water District                             | 92                       | A                       |                         |             | Yes                   | 7/1/95      |
| Lisbon Water Department                            | 243                      | A-1                     |                         |             | No                    | 7/1/96      |
| Livermore Falls Water District                     | 32                       | A                       |                         |             | Yes                   | 7/1/94      |
| Lubec Water And Electric District                  | 88                       | A                       |                         |             | Yes                   | 7/1/96      |
| Madawaska Water District                           | 236                      | A                       |                         |             | Yes                   | 7/1/94      |
| Maine County Commissioners Assoc.                  | 225                      | A-1                     |                         |             | No                    | 7/1/96      |
| Maine Maritime Academy                             | 38                       | A                       |                         | 2           | Yes                   | 7/1/96      |
| Maine Municipal Bond Bank                          | 93                       | A                       |                         |             | Yes                   | 7/1/95      |
| Maine Sardine Council                              | 289                      | A                       |                         |             | Yes                   | 7/1/94      |
| Maine School Management Association                | 239                      | A                       |                         |             | Yes                   | 7/1/94      |
| Maine State Retirement System                      | 290                      | A                       |                         |             | Yes                   | 7/1/94      |
| Maine Turnpike Authority                           | 49                       | A                       |                         |             | Yes                   | 7/1/94      |
| Maine Veterans Home                                | 271                      | A                       |                         |             | Yes                   | 7/1/94      |
| Mars Hill Utility District                         | 283                      | A                       |                         |             | Yes                   | 7/1/94      |
| ME Secondary School Principals Assoc.              | 105                      | A                       |                         |             | Yes                   | 7/1/94      |
| Mechanic Falls Sanitary District                   | 282                      | A-1                     |                         |             | No                    | 7/1/94      |
| Milo Water District                                | 238                      | A-1                     |                         |             | No                    | 7/1/96      |
| Mt. Desert Island Reg. School District             | 120                      | A                       |                         |             | Yes                   | 7/1/96      |
| Norway Water District                              | 136                      | A-1                     |                         |             | No                    | 7/1/95      |
| Old Town Housing Authority                         | 262                      | A                       |                         |             | FO                    | 7/1/94      |
| Old Town Water District                            | 79                       | A-1                     |                         |             | No                    | 7/1/94      |
| Oxford County                                      | 57                       | A                       |                         |             | Yes                   | 7/1/94      |
| Paris Utility District                             | 159                      | A                       |                         |             | Yes                   | 7/1/95      |
| Penobscot County                                   | 11                       | A                       |                         |             | Yes                   | 7/1/94      |
| Penquis Cap Inc.                                   | 237                      | A-1                     |                         |             | No                    | 7/1/95      |
| Piscataquis County                                 | 121                      | A                       |                         |             | Yes                   | 7/1/94      |
| Pleasant Point Passamaquoddy                       | 165                      | A                       |                         |             | Yes                   | 7/1/96      |





## PARTICIPATING LOCAL DISTRICTS PLAN ELECTIONS (continued)

| <u>PLD Name</u>                       | <u>PLD #</u> | <u>Regular<br/>Plan</u> | <u>Special<br/>Plan</u> | <u>Special<br/>Plan</u> | <u>COLA</u> | <u>Entry<br/>Date</u> |
|---------------------------------------|--------------|-------------------------|-------------------------|-------------------------|-------------|-----------------------|
| Portland Housing Authority            | 185          | A                       |                         |                         | Yes         | 7/1/94                |
| Portland Public Library               | 41           | A                       |                         |                         | Yes         | 7/1/95                |
| Richmond Utilities District           | 242          | A-1                     |                         |                         | No          | 7/1/94                |
| Rumford Fire and Police               | 60           | A                       | 3                       | 4                       | Yes         | 7/1/95                |
| Rumford/Mexico Sewerage District      | 247          | A                       |                         |                         | Yes         | 7/1/96                |
| Rumford Water District                | 65           | A                       |                         |                         | Yes         | 7/1/95                |
| Sanford Housing Authority             | 152          | A                       |                         |                         | Yes         | 7/1/96                |
| Sanford Sewerage District             | 89           | A-1                     |                         |                         | No          | 7/1/94                |
| Sanford Water District                | 170          | A-1                     |                         |                         | No          | 7/1/96                |
| School Administrative District No. 9  | 119          | A                       |                         |                         | Yes         | 7/1/95                |
| School Administrative District No. 13 | 223          | A                       |                         |                         | Yes         | 7/1/96                |
| School Administrative District No. 16 | 190          | A-1                     |                         |                         | No          | 7/1/94                |
| School Administrative District No. 21 | 211          | A-1                     |                         |                         | No          | 7/1/96                |
| School Administrative District No. 29 | 168          | A                       |                         |                         | Yes         | 7/1/96                |
| School Administrative District No. 31 | 50           | A                       |                         |                         | FO          | 7/1/94                |
| School Administrative District No. 41 | 143          | A                       |                         |                         | Yes         | 7/1/96                |
| School Administrative District No. 49 | 189          | A-1                     |                         |                         | No          | 7/1/95                |
| School Administrative District No. 51 | 198          | A-1                     |                         |                         | No          | 7/1/96                |
| School Administrative District No. 53 | 129          | A-1                     |                         |                         | No          | 7/1/96                |
| School Administrative District No. 54 | 115          | A                       |                         |                         | Yes         | 7/1/96                |
| School Administrative District No. 60 | 187          | A-1                     |                         |                         | No          | 7/1/94                |
| School Administrative District No. 67 | 126          | A                       |                         |                         | Yes         | 7/1/96                |
| School Administrative District No. 71 | 128          | A-1                     |                         |                         | No          | 7/1/96                |
| Searsport Water District              | 124          | A-1                     |                         |                         | No          | 7/1/96                |
| So. Penobscot Voc. School Reg. #4     | 269          | A-1                     |                         |                         | No          | 7/1/96                |
| So. Portland Housing Authority        | 206          | A-1                     |                         |                         | No          | 7/1/96                |
| Somerset County                       | 101          | A                       |                         |                         | Yes         | 7/1/94                |
| South Berwick Water                   | 171          |                         | 2                       |                         | Yes         | 7/1/96                |
| Town of Baileyville                   | 69           | A-1                     | 3-A                     |                         | No          | 7/1/96                |
| Town of Bar Harbor                    | 15           | A                       | 4                       |                         | Yes         | 7/1/95                |
| Town of Berwick                       | 108          | A-1                     |                         |                         | No          | 7/1/96                |
| Town of Bethel                        | 246          | A                       |                         |                         | Yes         | 7/1/96                |
| Town of Boothbay Harbor               | 146          | A                       |                         |                         | FO          | 7/1/96                |
| Town of Brunswick                     | 42           | A-1                     | 1-A                     | 2-A                     | No          | 7/1/95                |
| Town of Bucksport                     | 130          | A-1                     |                         |                         | No          | 7/1/95                |
| Town of Camden                        | 8            | A-1                     |                         |                         | No          | 7/1/94                |
| Town of China                         | 235          | A-1                     |                         |                         | No          | 7/1/96                |
| Town of Corinna                       | 217          | A-1                     |                         |                         | No          | 7/1/96                |
| Town of Cumberland                    | 216          | B**                     |                         |                         | Yes         | 7/1/95                |
| Town of Dexter                        | 97           | A                       |                         |                         | Yes         | 7/1/96                |
| Town of Dover-Foxcroft                | 167          | A-1                     |                         |                         | No          | 7/1/95                |
| Town of Durham                        | 234          | A-1                     |                         |                         | No          | 7/1/96                |
| Town of East Millinocket              | 54           | A                       | 2                       |                         | Yes         | 7/1/96                |
| Town of Easton                        | 240          | A                       |                         |                         | Yes         | 7/1/94                |
| Town of Eliot                         | 180          | A                       | 4                       |                         | Yes         | 7/1/94                |
| Town of Fairfield                     | 260          | A-1                     | 2-A                     |                         | No          | 7/1/95                |
| Town of Falmouth                      | 87           | A                       |                         |                         | Yes         | 7/1/96                |
| Town of Farmington                    | 100          | A                       | 1                       | 4                       | Yes         | 7/1/95                |
| Town of Frenchville                   | 98           | A-1                     |                         |                         | No          | 7/1/96                |
| Town of Fryeburg                      | 149          | A-1                     |                         |                         | No          | 7/1/96                |





## PARTICIPATING LOCAL DISTRICTS PLAN ELECTIONS (continued)

| <u>PLD Name</u>         | <u>PLD #</u> | <u>Regular<br/>Plan</u> | <u>Special<br/>Plan</u> | <u>Special<br/>Plan</u> | <u>COLA</u> | <u>Entry<br/>Date</u> |
|-------------------------|--------------|-------------------------|-------------------------|-------------------------|-------------|-----------------------|
| Town of Glenburn        | 174          | A                       |                         |                         | Yes         | 7/1/94                |
| Town of Gorham          | 133          | A                       | 2                       | 4                       | Yes         | 7/1/96                |
| Town of Greenville      | 112          | A                       |                         |                         | Yes         | 7/1/96                |
| Town of Hampden         | 151          | A-1                     |                         |                         | No          | 7/1/96                |
| Town of Harpswell       | 270          | A                       |                         |                         | Yes         | 7/1/94                |
| Town of Harrison        | 280          | B***                    |                         |                         | Yes         | 7/1/94                |
| Town of Hermon          | 150          | A-1                     |                         |                         | No          | 7/1/96                |
| Town of Hodgdon         | 215          | A-1                     |                         |                         | No          | 7/1/96                |
| Town of Houlton         | 10           | A-1                     |                         |                         | No          | 7/1/96                |
| Town of Jay             | 45           | A                       |                         |                         | Yes         | 7/1/94                |
| Town of Kennebunk       | 84           | A                       | 2                       |                         | Yes         | 7/1/96                |
| Town of Kennebunkport   | 188          | A-1                     | 1-A                     |                         | No          | 7/1/96                |
| Town of Kittery         | 14           | A                       | 1                       | 2                       | Yes         | 7/1/95                |
| Town of Lebanon         | 181          | A-1                     |                         |                         | No          | 7/1/96                |
| Town of Lincoln         | 76           | A-1                     | 3-A                     |                         | No          | 7/1/96                |
| Town of Linneus         | 214          | A-1                     |                         |                         | No          | 7/1/96                |
| Town of Lisbon          | 103          | A                       |                         |                         | Yes         | 7/1/96                |
| Town of Livermore Falls | 109          | A-1                     |                         |                         | No          | 7/1/96                |
| Town of Lovell          | 276          | A                       |                         |                         | Yes         | 7/1/96                |
| Town of Lubec           | 228          | A-1                     |                         |                         | No          | 7/1/96                |
| Town of Madawaska       | 82           | A                       |                         |                         | Yes         | 7/1/96                |
| Town of Mapleton        | 265          | A                       |                         |                         | Yes         | 7/1/96                |
| Town of Mars Hill       | 227          | A                       |                         |                         | Yes         | 7/1/96                |
| Town of Mechanic Falls  | 114          | A                       |                         |                         | FO          | 7/1/94                |
| Town of Medway          | 194          | A                       |                         |                         | Yes         | 7/1/96                |
| Town of Mexico          | 74           | A                       |                         |                         | Yes         | 7/1/96                |
| Town of Milford         | 186          | A-1                     |                         |                         | No          | 7/1/96                |
| Town of Millinocket     | 3            | A                       | 3                       | 4                       | Yes         | 7/1/96                |
| Town of Monson          | 184          | A-1                     |                         |                         | No          | 7/1/96                |
| Town of Mt. Desert      | 16           | A                       |                         |                         | Yes         | 7/1/96                |
| Town of Naples          | 138          | A-1                     |                         |                         | No          | 7/1/96                |
| Town of New Gloucester  | 210          | A-1                     |                         |                         | No          | 7/1/95                |
| Town of North Berwick   | 254          | A-1                     | 1-A                     |                         | No          | 7/1/96                |
| Town of Norway          | 125          | A-1                     |                         |                         | No          | 7/1/96                |
| Town of Orland          | 166          | A-1                     |                         |                         | No          | 7/1/96                |
| Town of Orono           | 61           | A-1                     | 4-A                     |                         | No          | 7/1/96                |
| Town of Orrington       | 209          | A-1                     |                         |                         | No          | 7/1/95                |
| Town of Otisfield       | 193          | A                       |                         |                         | FO          | 7/1/96                |
| Town of Oxford          | 200          | A-1                     |                         |                         | No          | 7/1/96                |
| Town of Paris           | 127          | A-1                     |                         |                         | No          | 7/1/96                |
| Town of Phippsburg      | 202          | A                       |                         |                         | Yes         | 7/1/96                |
| Town of Pittsfield      | 110          | A-1                     |                         |                         | No          | 7/1/96                |
| Town of Princeton       | 258          | A-1                     |                         |                         | No          | 7/1/96                |
| Town of Rockport        | 161          | A-1                     |                         |                         | No          | 7/1/96                |
| Town of Rumford         | 90           | A                       |                         |                         | Yes         | 7/1/95                |
| Town of Sabattus        | 175          | A-1                     |                         |                         | No          | 7/1/96                |
| Town of Sanford         | 83           | A-1                     | 1-A                     | 4-A                     | No          | 7/1/95                |
| Town of Scarborough     | 147          | A                       | 2                       |                         | Yes         | 7/1/96                |
| Town of Searsport       | 117          | A-1                     |                         |                         | No          | 7/1/96                |
| Town of Skowhegan       | 80           | A                       | 3                       |                         | Yes         | 7/1/96                |



**PARTICIPATING LOCAL DISTRICTS PLAN ELECTIONS**  
(continued)

| <u>PLD Name</u>                 | <u>PLD #</u> | <u>Regular<br/>Plan</u> | <u>Special<br/>Plan</u> | <u>Special<br/>Plan</u> | <u>COLA</u> | <u>Entry<br/>Date</u> |
|---------------------------------|--------------|-------------------------|-------------------------|-------------------------|-------------|-----------------------|
| Town of South Berwick           | 141          | A                       |                         |                         | FO          | 7/1/96                |
| Town of St. Agatha              | 30           | A-1                     |                         |                         | No          | 7/1/96                |
| Town of Topsham                 | 81           | A                       | 2                       |                         | Yes         | 7/1/96                |
| Town of Van Buren               | 182          | A                       |                         |                         | Yes         | 7/1/95                |
| Town of Vassalboro              | 153          | A                       |                         |                         | Yes         | 7/1/96                |
| Town of Waldoboro               | 195          | A                       | 3                       |                         | Yes         | 7/1/95                |
| Town of Washburn                | 230          | A-1                     |                         |                         | No          | 7/1/94                |
| Town of Wells                   | 107          | A                       | 3                       |                         | Yes         | 7/1/95                |
| Town of Winslow                 | 144          | A-1                     |                         |                         | No          | 7/1/96                |
| Town of Winthrop                | 179          | A-1                     |                         |                         | No          | 7/1/94                |
| Town of Yarmouth                | 116          | A                       | 2                       |                         | Yes         | 7/1/96                |
| Town of York                    | 28           | A                       | 4                       |                         | Yes         | 7/1/94                |
| Tri Community Sanitary Landfill | 267          | A                       |                         |                         | Yes         | 7/1/96                |
| Van Buren Housing Authority     | 229          | A                       |                         |                         | Yes         | 7/1/95                |
| Waldo County                    | 46           | A                       |                         |                         | Yes         | 7/1/94                |
| Waldo Reg. Voc. Ctr. Region #7  | 224          | A-1                     |                         |                         | No          | 7/1/96                |
| Washington County               | 40           | A                       |                         |                         | Yes         | 7/1/96                |
| Waterville Fire and Police      | 66           | A-1                     | 3-A                     |                         | No          | 7/1/96                |
| Waterville Sewerage District    | 222          | A                       |                         |                         | Yes         | 7/1/94                |
| Wells Ogunquit CSD              | 266          | A                       |                         |                         | FO          | 7/1/95                |
| Westbrook Housing Authority     | 259          | A                       |                         |                         | Yes         | 7/1/96                |
| Winter Harbor Utility District  | 250          | A                       |                         |                         | Yes         | 7/1/95                |
| Yarmouth Water District         | 278          | A                       |                         |                         | Yes         | 7/1/94                |
| York County                     | 37           | A                       | 2                       |                         | Yes         | 7/1/96                |
| York Sewer District             | 139          | A-1                     |                         |                         | No          | 7/1/94                |
| York Water District             | 39           | A                       |                         |                         | Yes         | 7/1/96                |

FO = Future Service COLA only, that is, for benefits attributable to service rendered after the PLD's entry date.

\* applicable to all new hires after July 1, 1996. All members in the PLD at July 1, 1996 elected to remain in the 1/50 Plan under Regular Plan A.

\*\* applicable to all new hires after July 1, 1995. All members in the PLD at July 1, 1995 elected to remain in the 1/50 Plan under Regular Plan A.

\*\*\* applicable to all new hires after July 1, 1994. All members in the PLD at July 1, 1994 elected to remain in the 1/50 Plan under Regular Plan A.



## APPENDIX B

### MEMBER AND BENEFITS RECIPIENTS DATA AND PROFILE

#### ACTIVE MEMBER DATA AS OF JUNE 30, 1997

##### Regular Plans Members

|                       |           |
|-----------------------|-----------|
| Count                 | 7,261     |
| Average Current Age   | 44.4      |
| Average Service       | 8.1       |
| Average Valuation Pay | \$ 22,863 |

##### Special Plans Members

|                       |           |
|-----------------------|-----------|
| Count                 | 1,507     |
| Average Current Age   | 39.6      |
| Average Service       | 11.8      |
| Average Valuation Pay | \$ 34,798 |

##### All Plans Members

|                       |           |
|-----------------------|-----------|
| Count                 | 8,768     |
| Average Current Age   | 43.5      |
| Average Service       | 8.7       |
| Average Valuation Pay | \$ 24,914 |



**BENEFIT RECIPIENT AND INACTIVE VESTED MEMBER DATA  
AS OF JUNE 30, 1997**REGULAR PLANSRetired Members, Beneficiaries, Disabled Members and Survivors

|                        |               |
|------------------------|---------------|
| Count                  | 4,350         |
| Total Annual Benefit   | \$ 26,935,786 |
| Average Annual Benefit | \$ 6,192      |

Inactive Vested

|  |              |
|--|--------------|
| Count  | 275          |
| Total Annual Deferred Benefit (Payable at Normal Retirement Age)   | \$ 1,155,681 |
| Average Annual Deferred Benefit (Payable at Normal Retirement Age) | \$ 4,202     |

SPECIAL PLANSRetired Members, Beneficiaries, Disabled Members and Survivors

|                        |               |
|------------------------|---------------|
| Count                  | 1,468         |
| Total Annual Benefit   | \$ 18,786,625 |
| Average Annual Benefit | \$ 12,797     |

Inactive Vested

|  |           |
|--|-----------|
| Count  | 9         |
| Total Annual Deferred Benefit (Payable at Normal Retirement Age)   | \$ 18,377 |
| Average Annual Deferred Benefit (Payable at Normal Retirement Age) | \$ 2,042  |



**BENEFIT RECIPIENT AND INACTIVE VESTED MEMBER DATA**  
**AS OF JUNE 30, 1997**  
 (continued)

ALL PLANS

Retired Members, Beneficiaries, Disabled Members and Survivors

|                        |               |
|------------------------|---------------|
| Count                  | 5,818         |
| Total Annual Benefit   | \$ 45,722,411 |
| Average Annual Benefit | \$ 7,859      |

Inactive Vested

|  |              |
|--|--------------|
| Count  | 284          |
| Total Annual Deferred Benefit (Payable at Normal Retirement Age) | \$ 1,174,058 |
| Avg. Annual Deferred Benefit (Payable at Normal Retirement Age)  | \$ 4,134     |





## APPENDIX C

### SUMMARY OF PLAN PROVISIONS

#### 1. Member Contributions

Members are required to contribute a percent of earnable compensation which varies by plan as follows:

|                 |                                     |
|-----------------|-------------------------------------|
| Regular A & A-1 | 6.5%                                |
| Regular B       | 3.0%                                |
| Special 1 & 1-A | 6.5%                                |
| Special 2 & 2-A | 6.5%                                |
| Special 3 & 3-A | 8.0% for first 25 years, 6.5% after |
| Special 4 & 4-A | 7.5% for first 25 years, 6.5% after |

#### 2. Average Final Compensation

For purposes of determining benefits payable under the plan, average final compensation is the average annual rate of earnable compensation for the 3 years of creditable service (not necessarily consecutive) which produce the highest such average.

#### 3. Creditable Service

Creditable service includes service while a member, certain service prior to the establishment of the plan, purchased military service credit, and service while receiving disability benefits under the plan.

#### 4. Service Retirement Benefits

##### Regular Plan A

Eligibility: *if in active service* - 25 years of creditable service or at least one year of creditable service immediately before retirement and at least normal retirement age.

*if not in active service* - at least 10 years of creditable service and at least normal retirement age.

Benefit: 1/50 of average final compensation multiplied by years of membership service under Consolidated Plan A plus a variable percentage of average final compensation multiplied by years of service under any previous plans (the percentage depends on the previous plan(s)), the sum of which is reduced by approximately 2-1/4% for each year that a member is younger than age 60 at retirement.

Form of payment: life annuity ("full benefit"), unless an optional method of payment is selected.

Cost of Living Adjustment: See item 10.

##### Regular Plan A-1

This benefit plan is the same as Regular Benefit Plan A, except that there is no provision for cost of living adjustments.



## SUMMARY OF PLAN PROVISIONS (continued)

### Regular Plan B

Eligibility: *if in active service* - 25 years of creditable service or at least one year of creditable service immediately before retirement and at least normal retirement age.

*if not in active service* - at least 10 years of creditable service and at least normal retirement age.

Benefit: 1/100 of average final compensation multiplied by years of membership service under Consolidated Plan B plus a variable percentage of average final compensation multiplied by years of service under any previous plans (the percentage depends on the previous plan(s)), the sum of which is reduced by approximately 2-1/4% for each year that a member is younger than age 60 at retirement.

Form of payment: life annuity ("full benefit"), unless an optional method of payment is selected.

Cost of Living Adjustment: See item 10.

### Special Plan 1

Eligibility: 20 years of creditable service in named positions.

Benefit: 1/2 of average final compensation plus 2% for each year of service in excess of 20.

Form of payment: life annuity ("full benefit"), unless an optional method of payment is selected.

Cost of Living Adjustment: See item 10.

### Special Plan 1-A

This benefit plan is identical to Special Benefit Plan 1, except that there is no provision for cost of living adjustments.

### Special Plan 2

Eligibility: 25 years of creditable service in named positions.

Benefit: 1/2 average final compensation plus 2% for each year of service in excess of 25.

Form of payment: life annuity ("full benefit"), unless an optional method of payment is selected.

Cost of Living Adjustment: See item 10.

### Special Plan 2-A

This benefit plan is identical to Special Benefit Plan 2, except that there is no provision for cost of living adjustments.





## SUMMARY OF PLAN PROVISIONS (continued)

### Special Plan 3

Eligibility: 25 years of creditable service in named positions.

Benefit:  $2/3$  of average final compensation plus 2% for each year of service in excess of 25.

Form of payment: life annuity ("full benefit"), unless an optional method of payment is selected.

Cost of Living Adjustment: See item 10.

### Special Plan 3-A

This benefit is identical to Special Benefit Plan 3, except that there is no provision for cost of living adjustments.

### Special Plan 4

Eligibility: Age 55 with 25 years of creditable service in named positions.

Benefit: 2% of average final compensation for each year of service.

Form of payment: life annuity ("full benefit"), unless an optional method of payment is selected.

Cost of Living Adjustment: See item 10.

### Special Plan 4-A

This benefit plan is identical to Special Benefit Plan 4, except that there is no provision for cost of living adjustments.

If Special Plan members fail to meet the Special Plan eligibility criteria, their service retirement benefits are those provided by the applicable underlying Regular Plan; Special Plan service credits are used toward Regular Plan eligibility requirements.

## **5. Pre-Retirement Accidental Death Benefits**

Eligibility: death resulting from a "job-related" injury, as defined in the MSRS statutes.

Benefit: A surviving spouse receives  $66\frac{2}{3}\%$  of average final compensation. If there are surviving dependent child(ren), regardless of whether there is a surviving spouse, the benefit is 100% of average final compensation.

## **6. Pre-Retirement Ordinary Death Benefits**

Eligibility: death resulting from a cause other than a "job-related" injury.

Benefit: Option 2 (see item 11) is automatically available, with benefits payable to designated beneficiary, spouse, child(ren), or parents; however, beneficiary may elect survivor benefits in monthly amounts varying by the number of eligible survivors. Otherwise, accumulated contributions are payable.





## SUMMARY OF PLAN PROVISIONS (continued)

### 7. Age-Limit Disability Benefits

Eligibility: Disabled as defined in the MSRS statutes, prior to normal retirement age, employed prior to October 16, 1992 and did not elect No-Age Disability Benefits.

Benefit: 66-2/3% of average final compensation paid so long as remain disabled until the service retirement benefit is equal or until 10 years after normal retirement age, whichever comes first.

### 8. No-Age Disability Benefits

Eligibility: Disabled as defined in the MSRS statutes, employed on or after October 16, 1992, or employed prior to October 16, 1992 and elected No-Age Disability.

Benefit: 59% of average final compensation paid so long as remain disabled until service retirement benefit is equal.

### 9. Refund of Contributions

Eligibility: termination of service other than by retirement or death.

Benefit: member's accumulated contributions with interest.

### 10. Cost of Living Adjustments

All retirement (and survivor) benefits payable to (or in relation to) benefit recipients who were employed by a PLD that elected a plan which provides for a COLA are adjusted each year that there is a percentage change in the Consumer Price Index, based on the Index. Cost of living adjustments are effective September 1 and are applied to all benefits which have been in payment for six months. The maximum annual increase or decrease is 4%.

### 11. Methods of Payment of Service Retirement Benefits

At retirement, a member must choose one of the following methods of payment:

Full Benefit: Unadjusted benefit paid for the life of the member only.

Option 1: Cash payment equal to the remaining employee contribution balance, if any, at the date of death (the employee contribution balance having been reduced each month by the portion of the monthly benefit deemed to be provided by employee contributions).

Option 2: Reduced retirement benefit payable for life to member; after death, benefit of same amount as the retiree's benefit payable to beneficiary for beneficiary's life.

Option 3: Reduced retirement benefit payable for life to member; after death, benefit of one-half the amount of the retiree's benefit payable to beneficiary for beneficiary's life.

Option 4: Any other method of benefit payment that provides a benefit that is actuarially equivalent to the full benefit and is approved by the Board.





## APPENDIX D ACTUARIAL ASSUMPTIONS AND METHODS

### A. Actuarial Assumptions

1. Annual Rate of Investment Return 8.0%
2. Cost of Living Increases in Benefits 4.0%
3. Annual Rate of Salary Increase 6.0%

| 4. Rates of Termination at Selected Ages* | Age | Regular & Special Plan Members % Leaving |
|---|-----|--|
|   | 25  | 7.0%                                     |
|   | 30  | 6.0                                      |
|   | 35  | 5.0                                      |
|   | 40  | 4.0                                      |
|   | 45  | 3.0                                      |
|   | 50  | 2.0                                      |
|   | 55  | 1.0                                      |

| 5. Rates of Healthy Life Mortality at Selected Ages (number of deaths per 10,000 members)** | Age | Male | Female |
|---|-----|------|--------|
|   | 25  | 6    | 3      |
|   | 30  | 8    | 5      |
|   | 35  | 11   | 7      |
|   | 40  | 16   | 9      |
|   | 45  | 29   | 14     |
|   | 50  | 53   | 22     |
|   | 55  | 85   | 33     |

| 6. Rates of Disabled Life Mortality at Selected Ages (number of deaths per 10,000 members) | Age | Regular & Special Plan Members Male | Female |
|--|-----|-------------------------------------|--------|
|  | 45  | 349                                 | 191    |
|  | 50  | 376                                 | 207    |
|  | 55  | 420                                 | 240    |
|  | 60  | 488                                 | 288    |
|  | 65  | 595                                 | 366    |
|  | 70  | 763                                 | 487    |

\*Members with ten or more years of service are assumed to elect deferred vested benefits; other terminations are assumed to elect refunds.

\*\*For Regulars, 5% of deaths are assumed to be accidental; for Specials, 20% of deaths are assumed to be accidental.



## ACTUARIAL ASSUMPTIONS AND METHODS (continued)

| 7. Rates of Retirement at Selected Ages (number retiring per 1,000 members) | Age | Regular Plan | Special Plan |
|---|-----|--------------|--------------|
|   | 45  | 25           | *            |
|   | 50  | 38           |              |
|   | 55  | 50           |              |
|   | 59  | 60           |              |
|   | 60  | 1000         |              |

| 8. Rates of Disability at Selected Ages (members becoming disabled per 10,000 members)** | Age |    |    |
|--|-----|----|----|
|  | 25  | 6  | 13 |
|  | 30  | 6  | 13 |
|  | 35  | 7  | 14 |
|  | 40  | 11 | 18 |
|  | 45  | 22 | 29 |
|  | 50  | 42 | 49 |
|  | 55  | 72 | 79 |

|                                   |  |
|-----------------------------------|--|
| 9. Family Composition Assumptions | 100% of active members are married with two children receiving benefits for an average of five years apiece; spouses are same age; no dependent parents. |
|-----------------------------------|--|

\* Assumed to retire when eligible for retirement. - i.e., after 20 years of service in Special Plan 1, after 25 years of service in Special Plans 2 and 3, and at the later of age 55 or 25 years of service in Special Plan 4.

\*\*Disabilities are assumed to be 75% non-service connected for Regular employees and 25% non-service connected for Police and Fire.

### B. Actuarial Methods

#### 1. Funding Method

The Entry Age Normal method is used to determine costs. Under this funding method, the total employer contribution rate is determined which consists of two elements, the normal cost rate and the pooled unfunded actuarial liability (PUAL) rate. The actual contribution for a given PLD will include an IUUAL payment as well.

For each Regular and Special Plan, a normal cost rate is determined for the average new entrant. This rate is determined by taking the value, as of age at entry into the plan, of the member's projected future benefits, reducing it by the value of future member contributions, and dividing it by the value, also as of the member's entry age, of the member's expected future salary.

In addition to normal cost contributions calculated per plan, the employers in each plan are required to make contributions to fund that plan's pooled unfunded actuarial liability, if any. The actuarial liability is defined as the present value of future benefits less the present value of future normal costs, less future member contributions, and less expected IUUAL payments. The pooled unfunded actuarial liability is the total of the actuarial liability for all members less the actuarial value of the Plan's assets. The actuarial liability includes projections of future member pay increases and future service credits.

The Initial Unpooled Unfunded Actuarial Liability (IUUAL) was calculated at entry into the Consolidated Plan for each PLD. These amounts are amortized by annual payments over a fixed number of years. Additional unfunded liability amounts which arise after entry to the Consolidated Plan will be pooled and amortized over 15 years.





## ACTUARIAL ASSUMPTIONS AND METHODS (continued)

### 2. Asset Valuation Method

For purposes of the June 30, 1997, actuarial valuation, assets are valued at an "actuarial value" as described in Section II.

