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Maine State Retirement System Annual Report for the Fiscal Year Ended June 30, 1998

Maine State Retirement System

Maine State Retirement System

Annual Report

For the Fiscal Year Ending June 30, 1998

MAINE STATE RETIREMENT SYSTEM

ANNUAL REPORT

FOR THE FISCAL YEAR ENDING JUNE 30, 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."

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and

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MAINE STATE RETIREMENT SYSTEM

EXECUTIVE DIRECTOR'S REPORT

In the 1997 Annual Report I promised timely publication of the Annual Report in 1998. I also promised that the 1998 Annual Report would look "quite different" from its predecessors. We have held good on only half of these promises, but on the most important half: publication is timely, coming the several months after the close of the fiscal year that it takes to prepare and produce the System's audited financial statements and annual actuarial valuation. For now, the intention to change the Annual Report's look remains an intention, in line behind higher-priority work.

The higher priority work that demanded our attention, energies and time continued to be the efforts that will transform the Retirement System. "Transform" may seem an odd word: the responsibilities that the System is charged with and the authority it has been given to carry them out have not changed in a fundamental way, and probably will not. But the way we do our work is being fundamentally changed, and that will be the System's transformation. Automation (i.e., the application of new and continuously newer technology to our workday tasks and jobs, the accompanying necessity to convert 56 years of paper records to "clean" data, and the recording of that data in electronic form) is part of the transformation. Having good, timely data, readily accessible, poises us for the rest of the transformation. The virtue of the data lies entirely in its uses to the System's members, retirees, and employers, and the rest of the transformation lies in how we turn the data into accurate information, accurate calculations, and sound funding programs, and how we work with our members, retirees and employers so that these crucial outputs are most useful to them.

It's not that we think that we'll get from Here to There, after which Things Will Be Fine and Just Hum Right Along. Once upon a time, maybe we thought so. We've since gotten to be more friendly with Reality: we'll go from Here to Better and Better, and the definition of Better will change and we'll go to meet it, and that will happen over and over again.

We can't stop doing our daily work while we transform the way we do it, and we give equally high priority to doing that work. We continue to operate as a financial institution; we continue to take in new members; we continue to receive and record contributions, and compensation and service data; we continue to calculate and pay out refunds; we continue to process disability applications; we continue to prepare benefit estimates; we continue to process members for retirement; we continue to issue monthly benefit checks and in doing so to account for federal and state taxes and authorized deductions. The staff that will transform - is transforming - the Retirement System is the staff that is responsible to carry on with the System's daily work. We work in the present while we work our way toward our future.

1998 Highlights in Brief

Investment Returns. At June 30, 1998, the System's investment return for the one-year period ending on that date was 17.8%. Three-year and five-year returns at that date were 17.7% and 14.6% respectively. Total invested assets on June 30, 1998, were \$6.1 billion. Investment income for the year was \$919 million.

Funded Status. The accrued benefit funded status of the State employee and teacher plans continued to improve, due principally to investment performance, which was over twice the actuarial assumption of an 8% return. The accrued benefit funded ratio at June 30, 1998 was 91.2%. The actuarial funded ratio continued its steady improvement, reaching 62.9% but not yet adequately sound. The unfunded actuarial liability is large: at June 30, 1998, \$2.4 billion. Unlike many, if not most, public retirement systems, however, the Retirement System's liabilities are conservatively measured and its funding methodology and actuarial assumptions are likewise very conservative. The resulting number, while abstract, is nonetheless real, a fairly stated acknowledgment of past nonetheless real, a fairly stated acknowledgment of past failures to be providing funding sufficient to keep pace with liability growth. Importantly, this real number is matched by an equally real present determination to pay it down: a voter-established constitutional amendment requires paydown by a time certain and prohibits creation of new unfunded liabilities; the Legislature has provided additional payments in every fiscal year since FY95; and, effective June 30, 1998, the Legislature and Governor established a 25-year amortization period, shortening the Constitutional maximum period for paydown by five years. The seriousness and coherence of the Board's and the State's attention to the unfunded liability were sufficient to persuade the major bond rating agencies that its existence and stated amount were not negative factors in rating Maine bonds.

Federal and State Court Litigation. The United States Supreme Court's refusal to hear the case of Parker v. Wakelin brought to finality both that case and its State-court companion, Dzialo v. Perrier. These cases had challenged the constitutionality under, respectively, the United States and Maine Constitutions, of six 1993 amendments to Retirement System statutes that made significant benefit-plan changes for specified, and in some instances all, members of the State employee and teacher plans. The Supreme Court's action let stand the First Circuit Court of Appeal's decision in Parker v. Wakelin that gave broad authority to the Legislature to change benefit plans.

The Ice Storm. There are probably no Maine annals of 1998 in which the January Ice Storm can go unmentioned; if there are, it is certainly not the annals of the System. With all major support systems - electricity, water, heat, schools, day care, road clearing - non-functional or intermittent, our staff kept both work life and home life together, acknowledging the chaos, helping each other, staying focused and effective, remaining more than civil. For the first time ever, we turned to our backup computer system in Portland to help produce benefit checks, 27,775 of them, on schedule in spite of the spectacularly bad timing of the storm and because of our staff's determination to stare it down. We gave our own "Golden Lightbulb Award" to the staff member who was without electricity the longest: Carole Brown, 17 days.

Since the Retirement System is by definition an institution with responsibilities related to its constituencies' long-term goals and needs, it is important to accompany this discussion of on-going change, and these point-in-time snapshots of a year's highlights, with evidence of key elements of stability. The Board of Trustees is one such key element: with the exception of the State Treasurer, whose term coincides with her or his two-year term(s) of office, the current Trustees have been the Trustees for a minimum of three and one-half years and a maximum of eleven years. David Wakelin, the eleven-year member, has been Board Chair for seven years and is its current Chair. Peter Leslie, who, like David Wakelin, served on the watershed Committee to Study the Retirement System in 1987-1988, has been on the Board's Investment Advisory Committee since then and on its Board for three and one-half years. Trustees put forward by constituent groups - John Kimball, George Burgoyne, Grover MacLaughlin, Eunice Cotton Mercier, Charles Jackson - have each been put forward for at least two successive three-year terms, evidencing confidence in their capacities and approval of the way in which they attend to the System as Trustees. Key longstanding advisors to the Board and the System remain in place: Ennis Knupp and Associates as investment consultant; Milliman and Robertson as actuary.

And, on June 30, 1998, the System reached the five-year mark of its status as an independent public instrumentality. Other than having, on that day as on every other day, not the slightest doubt that independent status has made possible the fundamental improvements that have been put in place since 1993, we were too busy to notice.

Kay R. H. Evans
Executive Director

1998 LEGISLATIVE SUMMARY

An Act to Modify the Retirement Laws for Certain Law Enforcement Officers
PL 1998, Chapter 740

This law amends the employment date for Maine State Police Officers to qualify for a service retirement benefit as a state police officer after completing 20 years of creditable service. In order to qualify the member now must have become a state police officer prior to September 16, 1984 instead of September 1, 1984. This change affects only the 38th Training Troop of the Maine State Police. The bill also provides a mechanism to fund the costs of these members' improvement in benefits from their date of hire from General Fund Surplus and does not become effective until funds are in fact available and the legislature takes further action.

An Act to Grant the Treasurer of the State Full Voting Rights on the Board of Trustees of the Maine State Retirement System
PL 1998, Chapter 625

This law gives the Treasurer or Deputy Treasurer of the State full voting rights on the Board of Trustees of the Maine State Retirement System. It also increases from four to five the number of trustees necessary to constitute a quorum.

An Act to Allow Maine Technical College System Employees Represented by the Maine Education Association Faculty and Administrative Units to Participate in a Defined Contribution Retirement Plan
PL 1998, Chapter 763

This law allows certain persons employed in the faculty and instructor and administrative staff bargaining units of the Maine Technical College System (MTCS) to participate in a defined contribution retirement plan offered by the MTCS board of trustees instead of being members of the Maine State Retirement System. Under this law, the defined contribution plan provided by MTCS must include payout of at least 40% of a participant's assets as a life annuity and must include a disability benefit program. Participation in this defined contribution plan is a one-time, irrevocable choice for those eligible. Service rendered while an MTCS employee as a participant in the defined contribution plan cannot be counted as creditable service under the Maine State Retirement System.

An Act to Make Supplemental Appropriations and Allocations for the Expenditures of State Government and Changes to Certain Provisions of the Law Necessary to the Proper Operations of State Government for the Fiscal Years Ending June 30, 1998 and June 30, 1999
PL 1998, Chapter 643
Part M: Judicial Plan Members
Part R: Members of all plans
Part X: Named school districts
Part OO: Retired Teacher Members

PART M: This Part increases salaries and service retirement benefits for judges. The present benefit for service from December 1, 1984 to the date of retirement is calculated as 1/50 of the judge's average final compensation multiplied by the number of years of creditable service. The

1998 LEGISLATIVE SUMMARY
(continued)

increased benefit is calculated as 1/50 of the judge's average final compensation multiplied by the number of years of creditable service from December 1, 1984 to June 30, 1998, and three percent of the judge's average final compensation multiplied by the number of years of creditable service earned on or after July 1, 1998. The formula for calculating the maximum benefit available to judges continues to use the current 60% factor for service prior to July 1, 1998 but will now use a 70% factor for service earned on or after July 1, 1998.

PART R: This Part establishes the requirement that the unfunded liability attributable to state employees and teachers be paid off in no more than 25 years from June 30, 1998.

PART X: This Part directs that the first transfer or appropriation, if any, to the Retirement Allowance Fund of any unappropriated surplus of the General Fund must be used to pay any remaining actuarial costs or any accumulated interest of Early Retirement Incentives made to the employees of certain school units.

PART OO: This Part provides funds to increase the State's share of the cost of retired educators' health insurance from 25% to 30% effective January 1, 1999.

An Act to Amend the Laws of the Maine State Retirement System
PL 1998, Chapter 651

This law (1) repeals the five-year limit on payment of interest on contributions of inactive members who have fewer than ten years of creditable service thus allowing the payment of interest from July 1, 1998 forward on contributions of all non-vested, inactive members up to the time the contributions are refunded; (2) changes the date on which the Retirement System is required to report annually to the Joint Standing Committee on Labor, from January 15th to March 1st; and, (3) permits any member of the Board of Trustees of the Retirement System, except members who are active or retired teachers or school administrators, to serve on the Early Retirement Incentives Panel. Previously only the Board's "public" trustees could serve.

An Act to Implement a Reorganization of the Maine Sardine Council by the Maine Sardine Industry
PL 1998, Chapter 706

This law undoes the 1994 establishment of the Maine Sardine Council as a participating local district and redefines the status of Council employees as state employees for the purposes of rights and benefits under MSRS and health insurance coverage in retirement under the state employee health insurance program. It provides for the transfer of assets, liabilities and accounts to the state regular retirement plan for state employees and requires the Council to pay MSRS employer contributions and retiree health insurance costs that are paid by the employer.

1998 LEGISLATIVE SUMMARY
(continued)

An Act to Establish a Uniform Special Retirement Plan for State Law Enforcement Personnel, Maine State Prison Personnel, Emergency Personnel, Other Employee Groups That Prior to September 1, 1984, Had Special Retirement Plans and Certain Emergency Personnel and to Revise the Restoration to Service Requirements PL 1998, Chapter 769

This law establishes the 1998 Special Plan which provides a normal retirement age of 55 for Marine Resource Officers, Inland Fisheries and Wildlife Wardens, Forest Rangers, Airplane Pilots and Liquor Inspectors hired on or after September 1, 1984, and Defense, Veterans and Emergency Management Firefighters employed at the Bangor International Airport on July 1, 1998 or hired thereafter. A member with a minimum of 10 years under this plan can retire on or after reaching age 55 with no penalty for early retirement for those years earned in the 1998 Special Plan. Other years of service would be reduced for early retirement from the normal retirement age of the plan in which they were earned. State Police Officers and Maine State Prison employees covered under the post-9/1/84 special plan can also retire at age 55 with 10 years under the 1998 Special Plan. Members with creditable service prior to the establishment of this plan will receive benefits calculated in two parts, including reductions for early retirement, based on plan coverage before and after July 1, 1998.

This law also amends the restoration to service provisions that apply to state and teacher retirees. Effective with earnings received on and after January 1, 1999, a retiree must repay to the Retirement System one-half of the amount by which the retiree has overearned.

An Act to Amend the Laws Concerning Participating Local Districts in the Maine State Retirement System PL 1998, Chapter 709

This law was initiated by the PLD Plan Advisory Committee. It allows participating local districts (PLDs) to offer their employees the choice to participate in an employer-provided defined contribution or deferred compensation plan rather than being Maine State Retirement System members. The employer-provided plan must meet certain criteria set out in the law. The law provides that an employee who participates in the employer-provided plan may not receive MSRS service credit for any time during which the employee was not a member of the Maine State Retirement System.

OVERVIEW OF THE MAINE STATE RETIREMENT SYSTEM

MAINE STATE RETIREMENT SYSTEM

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, called "participating local districts" (PLDs), 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 as of June 30, 1998 and 1997 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.

	1998			1997		
Members	Active	Inactive	Total	Active	Inactive	Total
State*	13,811	13,587	27,398	13,795	13,393	27,188
Teachers	25,882	33,049	58,931	25,554	33,389	58,943
PLD*	8,941	7,575	16,516	9,037	7,135	16,172
Legislative	165	77	242	167	76	243
Judicial	52	2	54	52	2	54
Total	48,851	54,290	103,141	48,605	53,995	102,600

**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, 1998 and June 30, 1997:

BENEFITS PAYROLL

	1998 Benefit Recipients	1998 Benefit Dollars	1997 Benefit Recipients	1997 Benefit Dollars
Service Retirees	22,051	$ 20,743,864	21,770	$ 19,710,424
Retiree Beneficiaries	2,948	1,942,138	2,871	1,834,865
Disability Retirees	1,759	2,239,252	1,645	2,003,328
Ord./Accdn. Death Benes.	1,043	392,582	1,023	368,268
Total	27,801	$ 25,317,836	27,309	$ 23,916,885

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 law requires that each individual elected or appointed to service as a trustee is subject to the legislative confirmation process. All elected or appointed trustees are required to have "a working knowledge of retirement policy and legal issues and a general knowledge of understanding of banking, finance and investment practices." Three trustees are to be Retirement System members, one of whom is elected by the Maine Education Association, one of whom is elected by the Maine State Employees Association and one of whom is a PLD member to be appointed by the governing body of the Maine Municipal Association. Four trustees are appointed by the Governor. Of these, one must be selected by the Governor from a list of nominees submitted by the Maine Retired Teachers Association and one must be an MSRS retiree selected from nominees submitted by State and/or PLD retirees. The remaining two gubernatorial appointees are direct appointments, both of whom must be qualified through training or experience in the field of investments, accounting, banking or insurance or as actuaries. The eighth trustee is the State Treasurer, who serves ex officio. All trustees, save the State Treasurer, serve a three-year term. The Board elects its chair from its members.

The Board members as of June 30, 1998 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
Charles M. Jackson	Maine Municipal Association
Grover B. MacLaughlin	Governor's Appointment (Maine Retired Teachers Assoc.)
Dale McCormick, State Treasurer	Ex-officio Member
Eunice Mercier	Governor's Appointment (State Retiree)

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 contracts with the firm of Ennis and Knupp and Associates to assist in the development of the investment policy and the investment program.

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 departments:

- **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.

- **Member, Employer and Retiree Services** — This department is responsible for service retirement and disability retirement programs as well as death benefit and group life insurance benefit programs. The department is the System's primary liaison with members, employers and retirees.

- **Accounting & Finance** — This department has primary responsibility for the MSRS's accounting and financial management systems.

- **Information Systems** — This department is responsible for the MSRS data systems and data processing.

- **Human Resources** — This department is responsible for the System's internal personnel and payroll and labor relations matters.

STATISTICALDATASUMMARY
FOR FISCAL YEARS 1993 TO 1998

EMPLOYEEANDEMPLOYERCONTRIBUTIONS

Fiscal Year ending June 30	Employee*	Employer*
1998	$ 103,314,565	$ 273,317,235
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

NUMBERSOFBENEFITSRECIPIENTS

Fiscal Year ending June 30	Total
1998	27,801
1997	27,309
1996	26,921
1995	26,310
1994	25,810
1993	25,127

BENEFITSPAYMENTS

Fiscal Year ending June 30	Benefits Payments*
1998	$ 301,341,756
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 15 for the Group Life Insurance Program information.*

GROUPLIFEINSURANCEPROGRAM
STATEMENTOFOPERATIONS
FOR THE FISCAL YEARS ENDING JUNE 30, 1998 AND JUNE 30, 1997

RECEIPTS	1998	1997
PremiumsCollected		
EmployeePaid	$ 5,212,972	$ 4,696,265
EmployerPaid	1,470,325	1,402,781
Total Premiums Collected	$ 6,683,297	$ 6,099,046
EarningsonInvestments	1,774,078	1,744,792
TOTAL RECEIPTS	$ 8,457,374	$ 7,843,838
EXPENSES		
ClaimsPaid		
Basic	$ 3,056,002	$ 1,640,441
Supplemental	667,019	1,310,204
Dependent	212,878	182,759
Retired Employees	2,368,465	2,511,759
Total Claims Paid	$ 6,304,364	$ 5,645,163
Retention	$ 326,410	$ 426,432
TOTAL EXPENSES	$ 6,630,774	$ 6,071,595
BALANCE OF RESERVES	$ 30,605,222	$28,778,622

MSRS FINANCIAL STATEMENTS

MAINE STATE RETIREMENT SYSTEM

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REPORT OF INDEPENDENT ACCOUNTANTS

October 13, 1998

Board of Trustees of
The Maine State Retirement System:

In our opinion, the accompanying statements of plan net assets and the related statements of changes in plan net assets present fairly, in all material respects, the net assets of the Maine State Retirement System as of June 30, 1998 and 1997, and the changes in plan net assets for the years then ended, in conformity with generally accepted accounting principles. These financial statements 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. Those 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, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for the opinion express above.

Our audits were made for the purpose of forming an opinion on the financial statements taken as a whole. The supplemental information included is required under GASB Statement No. 25. Such information, included on pages [] to [], has been subjected to the auditing procedures applied in the audits of the financial statements and, in our opinion, is fairly stated in all material respects in relation to the financial statements taken as a whole.

In accordance with *Government Auditing Standards,* we have also issued our report dated October 13, 1998, on compliance and on internal control over financial reporting based on an audit of financial statements performed in accordance with *Government Auditing Standards.*

PricewaterhouseCoopers LLP

MAINE STATE RETIREMENT SYSTEM
STATEMENTS OF PLAN NET ASSETS
June 30, 1998 and 1997

ASSETS	1998	1997
Cash and cash equivalents (Note 3)	$ 347,558,062	$ 263,692,712
Investments at fair value (Note 3):		
Debt securities:		
U. S. government and government agencies	217,580,084	153,652,899
Corporate	158,602,685	27,691,472
Other	6,043,873	
Common equity securities	1,413,416,786	1,368,102,829
Preferred equity securities	32,478,561	
Common/collective trusts	4,010,479,040	3,367,483,487
Other	7,506,685	10,129,229
	5,846,107,714	4,927,059,916
Receivables:		
State and local agency contributions	9,664,076	10,264,595
Due from brokers for securities sold	20,305,457	5,247,177
Accrued interest and dividends	7,708,225	6,139,814
Other (Note 5)	8,564,226	14,920,825
Total receivables	46,241,984	36,572,411
Fixed assets, net of accumulated depreciation	1,142,477	2,763,034
Total assets	6,241,050,237	5,230,088,073
LIABILITIES		
Accounts Payable	5,917,558	8,077,233
Due to brokers for securities purchased	46,388,232	3,991,897
Other liabilities	6,788,184	3,822,107
Total liabilities	59,093,974	15,891,237
Net assets held in trust for pension, disability, death and group life insurance benefits (a schedule of funding progress is presented on page 10)	$6,181,956,263	$5,214,196,836

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

MAINE STATE RETIREMENT SYSTEM
STATEMENTS OF CHANGES IN PLAN NET ASSETS
for the years ended June 30, 1998 and 1997

	1998	1997
Additions:		
Investment income:		
Interest	$ 59,660,295	$ 47,117,503
Dividends	22,282,670	18,409,597
Net appreciation in the fair value of plan investments	850,981,801	762,486,252
Less: investment expenses	(10,550,305)	(10,743,856)
Net investment income	922,374,461	817,269,496
Contributions (Note 5):		
Members	108,527,537	105,379,275
State and local agencies	274,787,560	267,853,658
Total contributions	383,315,097	373,232,933
Total additions	1,305,689,558	1,190,502,429
Deductions:		
Benefits paid, net	307,972,530	290,210,934
Refunds and withdrawals	17,736,774	15,716,827
Administrative expenses	7,517,205	7,202,384
Depreciation adjustment (Note 2)	1,503,829	
Other (Note 2)	546,905	
Total deductions	335,277,243	313,130,145
Net increase	970,412,315	877,372,284
Net assets held in trust for pension, disability, death and group life insurance benefits (Note 5):		
Beginning of year	5,214,196,836	4,336,824,552
Reclassification (Note 2)	(2,652,888)	
End of year	$6,181,956,263	$ 5,214,196,836

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 (the 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, 1998 and 1997, the membership consisted of:

	1998	1997
Active vested and nonvested members	48,851	48,551
Terminated vested participants	1,444	1,821
Retirees and benefit recipients	27,873	27,186
Total	78,168	77,558

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 years of service credit or the earning of one year of 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 in accordance with statute. 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 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 contributions 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.

The total funds managed by the System are constitutionally restricted as held in trust for the payment of pension and related benefits to its members. 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 employ-

MAINE STATE RETIREMENT SYSTEM
NOTES TO FINANCIAL STATEMENTS
(continued)

1. Plan Description: (continued)

ees 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 paid by or on behalf of those covered are set and collected by the System. Benefit payments are made by the insurance company. The System remits to the insurance company payments in the amount of benefits paid out and additional payments representing administrative fees.

2. Summary of Significant Accounting Policies:

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. 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. Securities that are not frequently traded on a national or international exchange are manually valued at the end of each month by Northern Trust through a variety of external sources. The fair value of the pro-rata share of units in comingled equity and fixed income mutual and index funds, common/collective trusts, is determined by the respective fund trustee based on quoted sales prices of the underlying securities. Investments that do not have an established market are reported at estimated fair value.

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 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.

MAINE STATE RETIREMENT SYSTEM
NOTES TO FINANCIAL STATEMENTS
(continued)

2. Summary of Significant Accounting Policies: (continued)

Risks and Uncertainties

The System makes investments in any combination of stocks, bonds, fixed income securities, mutual funds, commingled mutual and index funds, derivative financial instruments and other investment securities. The System prohibits its investment managers from using leverage in its derivative financial instruments or from investing in speculative positions. 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.

Depreciation and Other Deductions

Other deductions include immaterial adjustments related to corrections to accumulated depreciation on fixed assets and accounts receivable.

Reclassification

Certain prior year balances have been classified to conform to the current year presentation. In addition, due to legislative restrictions, certain prior year designated net asset balances have been reclassified to other liabilities since the Legislature requires that certain revenues be deferred for specific expenditures.

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, 1998 and 1997, cash and cash equivalents were composed of the following:

	1998	1997
Cash on deposit with local banks	$ 4,595,314	$ 21,442,670
Short-term investment funds	316,879,973	230,449,626
Foreign currency deposits	26,082,775	11,800,416
Total	$ 347,558,062	$ 263,692,712

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 or units 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, 1998 and 1997, all of the System's investments are considered Category 1.

MAINE STATE RETIREMENT SYSTEM
NOTES TO FINANCIAL STATEMENTS
(continued)

At June 30, 1998 and 1997, the System had certain investments representing 5% or more of plan net assets, as follows:

	1998	1997
Common/collective trusts		
State Street-Wilshire 5000 Index Fund	$ 1,481,325,911	$ 1,151,900,983
J.P. Morgan-Mortgage Private Placement Fund		270,539,432
State Street Standard & Poor's Growth Fund	423,000,609	271,357,561
State Street Bond Market Index Fund	1,300,404,658	1,174,301,800

4. **Securities Lending Agreement:**

The System has entered into agreements with Northern Trust and State Street Bank, the custodians of certain of the System's investments, to lend securities held in the System's portfolio to various investment brokerage firms. The agreement requires that all loans be collateralized by cash in an amount at least equal to 102% of the market value of the securities loaned. The fair value of investments presented by the custodians in their June 30, 1998 portfolio statement includes all the activities of securities loaned.

5. **Contribution and Reserves:**

The Maine Constitution, Maine Statutes and the System's funding policy provide 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 25 year period from June 30, 1998. For participating local districts, either the level percentage of payroll method or the level dollar method is used, depending on plan structure, status of the participating local district, nature of the unfunded liability (i.e., separate or pooled) and amount of the unfunded liability. Amortization periods range from 2 years to 28 years.

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 and teachers. Accordingly, for the years ended June 30, 1998 and 1997, the System recorded $8,487,572 and $18,526,503 in additional contributions from the State of Maine, of which $8,487,572 and $14,892,189 were recorded as other receivables due from the State at June 30, 1998 and 1997, 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 pages 28 to 30.)

MAINE STATE RETIREMENT SYSTEM
NOTES TO FINANCIAL STATEMENTS
(continued)

The contribution rates as actuarially determined in effect in 1998 and 1997 for participating entities are as follows:

	1998	1997
State:		
Employees*	7.65 - 8.65%	7.65 - 8.65%
Employer	16.39%	16.09%
Teachers:		
Employees	7.65%	7.65%
Employers	19.30%	19.42%
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. Withdrawn entities' contributions are set in dollar amounts, not as rates.*

By statute, the System maintains separate benefit reserve funds, as well as other reserves the board of trustees designates. At June 30, 1998 and 1997, the System had the following reserves:

	1998	1997
Retirement allowance fund	$ 4,881,547,693	$ 3,972,417,933
Member contribution fund	1,269,803,349	1,210,347,393
Group life reserve	30,605,221	28,778,622
Expense fund	-0-	103,357
Other designated reserves	-0-	2,549,531
	$ 6,181,956,263	$ 5,214,196,836

6. **Statutory and Constitutional Requirements:**

In 1998, the State Legislature enacted a law that requires the State to fund unfunded actuarial liabilities existing as of June 30, 1998, of the State and teacher plans over a period not to exceed 25 years, commencing June 30, 1998. This statute shortens the constitutionally required amortization period of not more than 31 years from June 30, 1997, put in place by Constitutional amendment approved at referendum in November 1995. This Constitutional amendment also prohibits the creation of new unfunded liabilities, 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.

7. **System Employees: Retirement and Retiree Health Benefits:**

The System, as the employer of its staff, is a participating employer of the Maine State Retirement System. System employees are required by statute to contribute 6.5% of their annual covered salaries. The System is required to contribute at an actuarially determined rate; the current rate is 8% of annual covered payroll.

MAINE STATE RETIREMENT SYSTEM
NOTES TO FINANCIAL STATEMENTS
(continued)

The actuarial assumptions are described in the actuarial assumptions and methods footnote to the required supplementary information. The contribution requirements of plan members are set by statute; the employer contribution is established by actuarial valuation. For 1998, the System's annual pension cost for its employees was $655,977.

Included in administrative expenses in 1998 is a charge of $125,000 for the post-retirement medical benefits of its employees. This amount is equal to its actuarially determined expense. As of June 30, 1998, there is $750,000 in other liabilities for the payment of future benefits.

MAINE STATE RETIREMENT SYSTEM
REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Funding Progress

	(a)	(b)	(b - a)	(a/b)	(c)	((b - a)/c)
Actuarial valuation date	Actuarial value of assets	Actuarial accrued liability (AAL) - entry age	Unfunded AAL (UAAL)	Funded ratio	Annual Covered Payroll	UAAL (as a percentage of covered payroll)
6/30/98	$ 5,392,675,044	$ 7,854,273,082	$ 2,461,598,038	68.7%	$ 1,389,139,818	177.2%
6/30/97	4,602,973,536	7,291,821,034	2,688,847,498	63.1%	1,341,612,931	200.4%
6/30/96	3,959,367,717	6,985,476,378	3,026,108,661	56.7%	1,316,462,200	229.9%

Schedule of Employer Contributions

Year ended	Annual required contribution	Actual contribution	Percentage contributed
1998	$ 253,379,103	$ 274,787,560	108.4%
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, June 30, 1998, 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 legislatively-enacted 25 year closed period from June 30, 1998.

Significant actuarial assumptions employed by the actuary for funding purposes as of June 30, 1998 are as follows:

Investment Return - 8% per annum, compounded annually

Salary Increases - 5.5% to 9.5% per year (includes inflation of 5.5%)

Mortality Rates - Active State employee members and active participating local entity members - UP 1994 Tables; Active teacher members - 85% of UP 1994 Tables; Non-disabled State employee retirees and non-disabled participating local entity retirees - GAM 1971 Tables; Non-disabled teacher retirees - GAM 1971 Tables set back two years; All current recipients of disability benefits - 1964 Commissioners Disability Table; All disability benefit recipients who begin to receive benefits in 1998 and thereafter - RPA 1994 Table for pre-1995 Disabilities.

Post Retirement Benefit Increases - 4% per annum

MAINE STATE RETIREMENT SYSTEM
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, 1998 and 1997, the plan had the following actuarially determined liabilities:

(In millions)

	1998	1997
Actuarial liabilities:		
Active members	$ 42.6	$ 37.8
Retired members	36.4	38.7
Total	$ 79.0	$ 76.5

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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*

October 13, 1998

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, 1998 and have issued our report thereon dated October 13, 1998. 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 with 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.

We noted other matters involving the internal control structure and its operations that we have reported to the management of the System in a separate letter dated October 13, 1998.

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.

PricewaterhouseCoopers LLP

TRUST FUND BALANCES FOR THE YEAR ENDED JUNE 30, 1998

MAINE STATE RETIREMENT SYSTEM

TRUST FUND BALANCES AS OF JUNE 30, 1998

Ref Nbr	Plan or District Name	Members' Contribution	Retirement Allowance	Total Trust Fund Reserves
7	TEACHERS	$ 683,152,850	$ 2,080,596,575	$ 2,763,749,424
1	STATE	432,342,662	1,535,981,788	1,968,324,451
350	JUDICIAL	3,684,297	27,014,451	30,698,748
351	LEGISLATIVE	710,905	4,370,581	5,081,486
370	CONS - AC	89,848,347	557,960,432	647,808,780
371	CONS - AN	15,734,826	84,802,049	100,536,875
372	CONS - BC	6,180	31,567	37,747
373	CONS - 1C	9,747,150	199,049,921	208,797,071
374	CONS - 1N	1,791,884	19,079,484	20,871,369
375	CONS - 2C	16,903,330	138,057,837	154,961,168
376	CONS - 2N	1,105,041	5,734,865	6,839,905
377	CONS - 3C	3,948,837	42,096,588	46,045,425
378	CONS - 3N	2,152,486	16,137,413	18,289,899
379	CONS - 4C	1,697,491	7,565,397	9,262,888
380	CONS - 4N	159,723	218,738	378,461
106	AROOSTOOK COUNTY	-	691,709	691,709
43	AUBURN PUBLIC LIBRARY	-	313,834	313,834
69	BAILEYVILLE	-	554,411	554,411
59	BANGOR WATER DISTRICT	-	443,994	443,994
73	BATH	-	8,365,802	8,365,802
35	BELFAST	-	222,703	222,703
108	BERWICK	-	161,765	161,765
207	BERWICK SEWER DISTRICT	-	10,408	10,408
246	BETHEL	-	239,009	239,009
158	BIDDEFORD	-	660,088	660,088
157	BINGHAM WATER DISTRICT	-	44,265	44,265
146	BOOTHBAY HARBOR	-	297,996	297,996
21	BOOTHBAY HARBOR WATER	-	364,054	364,054
199	BRADFORD	-	23,147	23,147
176	BRIDGTON	2,994	380,840	383,834
253	BRIDGTON WATER DISTRICT	-	55,679	55,679
177	BROWNVILLE	-	322,470	322,470
42	BRUNSWICK	-	604,050	604,050
292	BRUNSWICK FIRE & POLICE	-	640,304	640,304
72	BRUNSWICK SEWER	-	211,029	211,029
130	BUCKSPORT	-	569,763	569,763
36	CALAIS	-	399,859	399,859
85	CAPE ELIZABETH	670,847	7,021,322	7,692,169
135	CAP COASTAL COUNC OF GOV'T	10,388	225,985	236,373
208	CARIBOU FIRE AND POLICE	-	1,546,109	1,546,109
265	CASTLE HILL	-	113,756	113,756
235	CHINA	-	51,472	51,472
217	CORINNA	-	168,257	168,257
251	CORINNA SEWER DISTRICT	-	131,091	131,091
252	CSD #12 - TOPSFIELD	-	70,939	70,939
266	CSD #18 -WELLS/OGUNQUIT	-	241,045	241,045
204	CSD #3 - BOOTHBAY	53,225	482,580	535,804
216	CUMBERLAND	-	329,829	329,829
5	CUMBERLAND COUNTY	-	829,172	829,172
191	DAMARISCOTTA	-	294,129	294,129

TRUST FUND BALANCES AS OF JUNE 30, 1998
(continued)

Ref Nbr	Plan or District Name	Members' Contribution	Retirement Allowance	Total Trust Fund Reserves
97	DEXTER	$ -	$ 117,402	$ 117,402
197	DIXFIELD	685	336,777	337,463
167	DOVER FOXCROFT	-	287,218	287,218
137	DOVER FOXCROFT WATER	-	31,084	31,084
234	DURHAM	-	107,463	107,463
180	ELIOT	-	337,831	337,831
13	ELLSWORTH	-	128,888	128,888
249	ERSKINE ACADEMY	-	95,000	95,000
156	EXETER	6,840	12,818	19,658
260	FAIRFIELD	-	322,978	322,978
58	FALMOUTH MEM LIBRARY	-	98,030	98,030
100	FARMINGTON	-	203,396	203,396
17	FORT FAIRFIELD	35,897	1,279,251	1,315,148
275	FORT FAIRFIELD HOUS AUTH	-	5,973	5,973
131	FORT FAIRFIELD UTILITIES	-	18,453	18,453
91	FORT KENT	180,963	1,161,169	1,342,132
102	FRANKLIN COUNTY	173,446	1,110,703	1,284,149
142	FREEPORT	3,709	1,013,213	1,016,922
98	FRENCHVILLE	-	56,861	56,861
149	FRYEBURG	-	76,501	76,501
24	GARDINER	-	860,031	860,031
221	GARDINER WATER DISTRICT	-	95,581	95,581
261	GEORGETOWN	-	62,660	62,660
133	GORHAM	-	600,613	600,613
205	GOULD ACADEMY	-	235,452	235,452
112	GREENVILLE	-	270,071	270,071
94	GRTR PORTLAND COUN OF GOV'T	53,223	1,584,745	1,637,969
160	HALLOWELL	-	116,577	116,577
151	HAMPDEN	-	14,048	14,048
183	HAMPDEN WATER DISTRICT	-	99,469	99,469
150	HERMON	-	452,339	452,339
215	HODGDON	-	12,031	12,031
285	HOMESTEAD PROJECT	10,673	95,618	106,291
10	HOULTON	-	1,321,481	1,321,481
232	HOWLAND	-	72,071	72,071
244	INDIAN TOWNSHIP TRIBAL GOV'T	-	1,440,483	1,440,483
173	INDIAN TWNSHIP PASS RES HOUS AUTH	-	181,151	181,151
226	JACKMAN WATER DISTRICT	-	673	673
255	KENNBUNK,KENNPORT,WELLS WATER	-	320,044	320,044
47	KENNEBEC COUNTY	-	18,104	18,104
220	KENNEBEC SANITARY DISTRICT	-	233,223	233,223
31	KENNEBEC WATER	-	841,506	841,506
84	KENNEBUNK	-	558,780	558,780
201	KENNEBUNK SEWER DISTRICT	-	315,433	315,433
188	KENNEBUNKPORT	-	795,007	795,007
14	KITTERY	-	269,549	269,549
12	KITTERY WATER	-	269,222	269,222
33	KNOX COUNTY	27,144	669,576	696,720
181	LEBANON	-	212,066	212,066

TRUST FUND BALANCES AS OF JUNE 30, 1998
(continued)

Ref Nbr	Plan or District Name	Members' Contribution	Retirement Allowance	Total Trust Fund Reserves
163	LEW/AUB WAT POL CON AUTH	$ -	$ 64,676	$ 64,676
245	LIMESTONE	93,295	406,697	499,992
29	LIMESTONE WATER AND SEWER	61,411	357,910	419,321
76	LINCOLN	-	1,244,335	1,244,335
134	LINCOLN ACADEMY	-	145,217	145,217
95	LINCOLN COUNTY	73,340	2,048,277	2,121,618
214	LINNEUS	-	4,985	4,985
103	LISBON	-	544,801	544,801
243	LISBON WATER	-	46,038	46,038
32	LIVERMORE FALL WATER	-	11,948	11,948
109	LIVERMORE FALLS	-	200,669	200,669
276	LOVELL	-	43,575	43,575
228	LUBEC	-	163,897	163,897
88	LUBEC WATER & ELECTRIC	-	993	993
225	MAINE COUNTY COMM ASSOC	-	25,078	25,078
169	MAINE HOUSING AUTHORITY	135,595	1,710,158	1,845,753
38	MAINE MARITIME ACADEMY	-	4,582,543	4,582,543
55	MAINE MUNICIPAL ASSOCIATION	102,747	1,207,673	1,310,420
227	MARS HILL	-	306,073	306,073
120	MDI REGIONAL SCHOOL DISTRICT	-	136,976	136,976
105	ME STATE PRINCIPALS ASSOC	-	57,456	57,456
114	MECHANIC FALLS	-	234,946	234,946
194	MEDWAY	-	71,560	71,560
74	MEXICO	-	326,779	326,779
186	MILFORD	-	108,036	108,036
3	MILLINOCKET	-	801,063	801,063
104	MILO	2,275	343,330	345,605
238	MILO WATER DISTRICT	-	117,083	117,083
184	MONSON	-	17,525	17,525
16	MT. DESERT	-	111,277	111,277
172	NEW CANADA PLANTATION	-	27,502	27,502
210	NEW GLOUCESTER	-	211,541	211,541
254	NORTH BERWICK	-	169,365	169,365
125	NORWAY	-	192,704	192,704
284	NORWAY PARIS SOLID WASTE CORP	2,291	96,761	99,052
140	OLD ORCHARD BEACH	600,476	7,179,355	7,779,831
111	OLD TOWN	-	841,965	841,965
262	OLD TOWN HOUSING	-	43,025	43,025
79	OLD TOWN WATER	-	87,231	87,231
166	ORLAND	-	266,321	266,321
61	ORONO	-	962,985	962,985
209	ORRINGTON	-	234,269	234,269
200	OXFORD	-	5,270	5,270
57	OXFORD COUNTY	-	91,518	91,518
127	PARIS	-	265,189	265,189
159	PARIS UTILITY DISTRICT	-	45,322	45,322
11	PENOBSCOT COUNTY	-	631,046	631,046
202	PHIPPSBURG	-	229,029	229,029
121	PISCATIQUIS COUNTY	-	79,840	79,840
110	PITTSFIELD	-	775,647	775,647

TRUST FUND BALANCES AS OF JUNE 30, 1998
(continued)

Ref Nbr	Plan or District Name	Members' Contribution	Retirement Allowance	Total Trust Fund Reserves
41	PORTLAND PUBLIC LIBRARY	$ -	$ 5,366	$ 5,366
4	PRESQUE ISLE	2,205,265	19,948,313	22,153,578
258	PRINCETON	-	179,708	179,708
268	PROJECT LODESTONE	2,539	42,675	45,214
212	READFIELD	-	58,650	58,650
269	REGION 4 - SO PENOBSCOT	-	69,028	69,028
224	REGION 7 - WALDO	-	174,591	174,591
213	RICHMOND	32,086	575,676	607,762
242	RICHMOND UTILITIES	-	21,211	21,211
161	ROCKPORT	-	47,386	47,386
247	RUMFORD MEXICO SEWAGE DISTRICT	-	52,431	52,431
175	SABATTUS	-	314,120	314,120
192	SACO	-	938,402	938,402
119	SAD #9 - FARMINGTON	-	235,220	235,220
190	SAD # 16 - HALLOWELL	-	224,159	224,159
223	SAD #13 - BINGHAM	-	219,320	219,320
211	SAD #21 - DIXFIELD	-	112,914	112,914
78	SAD #28	-	60,270	60,270
168	SAD #29	-	228,801	228,801
50	SAD #31 - HOWLAND	-	117,000	117,000
77	SAD #34 - BELFAST	266,021	3,023,533	3,289,554
143	SAD #41 - MILO	-	504,709	504,709
189	SAD #49 - FAIRFIELD	-	332,760	332,760
198	SAD #51- CUMBERLAND	-	524,777	524,777
129	SAD #53	-	99,258	99,258
115	SAD #54	-	198,831	198,831
218	SAD #56 - SEARSPORT	75,868	470,543	546,411
187	SAD #60 - NORTH BERWICK	-	726,049	726,049
113	SAD #66 - ELLSWORTH	-	496,742	496,742
126	SAD #67	-	299,829	299,829
128	SAD #71	-	739,404	739,404
96	SAGADAHOC COUNTY	26,128	1,586,231	1,612,359
30	SAINT AGATHA	-	204,411	204,411
83	SANFORD	-	3,371,305	3,371,305
89	SANFORD SEWERAGE	-	164,387	164,387
170	SANFORD WATER DISTRICT	-	354,755	354,755
117	SEARSPORT	-	398,806	398,806
124	SEARSPORT WATER	-	132,948	132,948
80	SKOWHEGAN	-	602,795	602,795
171	SO BERWICK WATER DISTRICT	-	9,645	9,645
206	SO PORTLAND HOUSING	-	605,047	605,047
141	SOUTH BERWICK	-	249,790	249,790
164	THOMASTON	39,821	683,824	723,645
81	TOPSHAM	-	383,087	383,087
28	TOWN OF YORK	-	198,793	198,793
267	TRI-COMMUNITY LANDFILL	-	9,265	9,265
182	VAN BUREN	-	243,210	243,210
229	VAN BUREN HOUSING AUTH	-	126,462	126,462
153	VASSALBORO	-	190,760	190,760

TRUST FUND BALANCES AS OF JUNE 30, 1998
(continued)

Ref Nbr	Plan or District Name	Members' Contribution	Retirement Allowance	Total Trust Fund Reserves
162	WALLAGRASS PLANTATION	$ -	$ 12,508	$ 12,508
40	WASHINGTON COUNTY	-	7,302	7,302
66	WATERVILLE FIRE AND POLICE	-	895,211	895,211
107	WELLS	-	235,326	235,326
122	WESTBROOK	652,054	7,888,505	8,540,559
70	WESTBROOK FIRE AND POLICE	929,216	19,236,500	20,165,716
241	WESTERN ME COMM ACT COUN	120,144	1,178,548	1,298,692
86	WILTON	194,479	986,975	1,181,454
144	WINSLOW	-	706,140	706,140
250	WINTER HARBOR UTILITIES	-	16,235	16,235
179	WINTHROP	-	561,319	561,319
116	YARMOUTH	-	473,576	473,576
37	YORK COUNTY	-	642,791	642,791
39	YORK WATER DISTRICT	-	140,941	140,941
TOTAL TRUST FUNDS		**$ 1,269,831,098**	**$ 4,866,015,689**	**$6,135,846,787**

INVESTMENTS
AT JUNE 30, 1998

MAINE STATE RETIREMENT SYSTEM

ASSETS BY MANAGER
June 30, 1998

MAINE STATE RETIREMENT SYSTEM

	COST	MARKET VALUE	UNREALIZED GAIN/LOSS
ALLIANCE CAPITAL - EQUITY	$ 192,786,086	$ 331,549,416	$ 138,763,330
ALLIANCE CAPITAL - FIXED INCOME	245,619,360	254,118,374	8,499,013
ARK ASSET MANAGEMENT	224,012,394	243,383,896	19,371,502
BANKERS TRUST INTERNATIONAL EAFE	79,984,304	144,510,449	64,526,145
CASH ACCOUNT	182,455,272	182,455,272	-
CRAMER, ROSENTHAL, MCGLYNN	120,877,456	145,271,009	24,393,553
FINANCE AUTHORITY OF MAINE	6,147,902	6,147,902	-
JP MORGAN - INTERNATIONAL	20,207,727	20,573,543	365,816
JP MORGAN - MORTGAGES	228,167,560	260,905,926	32,738,366
JP MORGAN - MULTI MARKET I	27,524,063	42,971,826	15,447,764
JP MORGAN - MULTI MARKET II	32,471,152	41,143,089	8,671,937
JP MORGAN - PRIVATE PLACEMENTS	98,362,216	129,166,151	30,803,935
LOOMIS SAYLES	50,010,772	50,010,772	-
MARTIN CURRIE	198,077,878	221,762,919	23,685,041
PEREGRINE ASSET MANAGEMENT	233,001,872	266,112,271	33,110,399
ROWE PRICE FLEMING	108,430,170	141,057,928	32,627,757
STANDISH AYER & WOOD	100,651,518	100,651,518	-
STATE STREET EQUITY CORE	979,738,106	1,481,325,911	501,587,805
STATE STREET FIXED CORE	1,139,578,435	1,300,404,658	160,826,223
STATE STREET GROWTH INDEX	278,124,634	423,009,617	144,884,983
STATE STREET VALUE INDEX	153,264,087	206,382,911	53,118,824
WALTER SCOTT AND PARTNERS	116,498,186	135,460,820	18,962,633
TOTAL ASSETS	**$ 4,815,991,151**	**$ 6,128,376,176**	**$ 1,312,385,025**

GROUP LIFE INSURANCE

JP MORGAN - GROUP LIFE	**$ 29,720,148**	**$ 29,748,105**	**$ 27,958**

ASSET ALLOCATION
June 30, 1998

	PERCENT OF TOTAL	COST	MARKET VALUE	UNREALIZED GAIN/LOSS
TOTAL ASSETS	**100%**	**$ 4,815,991,151**	**$ 6,128,376,176**	**$ 1,312,385,025**
TOTAL CASH	**3.0%**	**$ 182,455,272**	**$ 182,455,272**	**$ -**
TOTAL DOMESTIC EQUITY	**51.9%**	**$ 2,241,799,849**	**$ 3,181,149,946**	**$ 939,350,096**
ALLIANCE CAPITAL - EQUITY	5.4%	192,786,086	331,549,416	138,763,330
ARK ASSET MANAGEMENT	4.0%	224,012,394	243,383,896	19,371,502
CRAMER, ROSENTHAL, MCGLYNN	2.4%	120,877,456	145,271,009	24,393,553
JP MORGAN - MULTI MARKET I	0.7%	27,524,063	42,971,826	15,447,764
JP MORGAN - MULTI MARKET II	0.7%	32,471,152	41,143,089	8,671,937
PEREGRINE ASSET MANAGEMENT	4.3%	233,001,872	266,112,271	33,110,399
STATE STREET EQUITY CORE	24.2%	979,738,106	1,481,325,911	501,587,805
STATE STREET GROWTH INDEX	6.9%	278,124,634	423,009,617	144,884,983
STATE STREET VALUE INDEX	3.4%	153,264,087	206,382,911	53,118,824
TOTAL DOMESTIC FIXED INCOME	**34.5%**	**$ 1,882,597,589**	**$ 2,115,830,942**	**$ 233,233,353**
ALLIANCE CAPITAL - FIXED INC	4.1%	245,619,360	254,118,374	8,499,013
JP MORGAN - INTERNATIONAL	0.3%	20,207,727	20,573,543	365,816
JP MORGAN - MORTGAGES	4.3%	228,167,560	260,905,926	32,738,366
JP MORGAN - PRIVATE PLCMNTS	2.1%	98,362,216	129,166,151	30,803,935
LOOMIS SAYLES	0.8%	50,010,772	50,010,772	-
STANDISH AYER & WOOD	1.6%	100,651,518	100,651,518	-
STATE STREET FIXED CORE	21.2%	1,139,578,435	1,300,404,658	160,826,223
TOTAL INTERNATIONAL EQUITY	**10.5%**	**$ 502,990,539**	**$ 642,792,115**	**$ 139,801,576**
BANKERS TRUST INT'L EAFE	2.4%	79,984,304	144,510,449	64,526,145
MARTIN CURRIE	3.6%	198,077,878	221,762,919	23,685,041
ROWE PRICE FLEMING	2.3%	108,430,170	141,057,928	32,627,757
WALTER SCOTT AND PARTNERS	2.2%	116,498,186	135,460,820	18,962,633
TOTAL OTHER INVESTMENTS	**0.1%**	**$ 6,147,902**	**$ 6,147,902**	**$ -**
FINANCE AUTHORITY OF MAINE	0.1%	6,147,902	6,147,902	-

INVESTMENT PERFORMANCE
June 30, 1998

	ONE YEAR	THREE YEARS	FIVE YEARS	SINCE INCEPTION
TOTAL ASSETS	**17.8**	**17.7**	**14.6**	**12.8**
DOMESTIC EQUITY CONSOLIDATION	**26.6**	**26.4**	**21.0**	**15.8**
ALLIANCE EQUITY	39.5	33.7	25.2	18.0
ARK ASSET	18.9	24.5	20.6	17.7
CRAMER ROSENTHAL	18.3	22.0	-	21.5
MORGAN MULTI-MKT I	18.9	20.2	-	16.1
MORGAN MULTI-MKT II	13.8	19.6	-	17.7
PEREGRINE	10.6	19.6	18.7	20.7
VALUE INDEX	25.4	-	-	28.7
GROWTH INDEX	34.5	-	-	41.0
EQUITY CORE	28.5	-	-	31.7
FIXED INCOME CONSOLIDATION	**10.5**	**8.2**	**7.1**	**10.0**
ALLIANCE FIXED	9.7	8.6	7.1	9.7
MORGAN CONSOLIDATION	10.2	8.7	7.6	10.8
MORGAN PRIV PLCM	7.0	7.8	7.5	10.6
MORGAN MORTGAGES	11.5	8.9	7.9	11.0
FIXED CORE	10.5	-	-	9.2
INTL EQUITY CONSOLIDATION	**4.5**	**12.0**	**10.9**	**6.3**
BANKERS INTERNATIONAL	6.3	11.0	10.3	5.8
MARTIN CURRIE	7.7	-	-	13.7
ROWE PRICE	4.6	-	-	11.5
WALTER SCOTT	(2.8)	10.0	-	10.1

SYSTEM HOLDINGS
June 30, 1998

	COST	MARKET VALUE	UNREALIZED GAIN/LOSS
CASH			
CASH ACCOUNT	**$ 182,455,272**	**$ 182,455,272**	**$ -**
DOMESTIC EQUITY			
ALLIANCE CAPITAL			
AES CORP	$ 3,466,565	$ 3,364,000	$ (102,565)
ALLIED SIGNAL INC	4,635,645	6,745,000	2,109,355
ALTERA CORP	3,490,345	2,305,875	(1,184,470)
AMER INTL GROUP INC	1,453,554	6,402,100	4,948,546
ASSOC 1ST CAP CORP	3,425,023	3,385,250	(39,773)
AVON PROD INC	962,602	929,250	(33,352)
BJ SVCS CO	3,728,369	3,080,625	(647,744)
BRISTOL MYERS SQUIBB CO	9,910,342	11,689,144	1,778,801
CAMPBELL SOUP CO	2,370,022	3,060,000	689,978
CHASE MANHATTAN CORP	3,904,469	6,867,480	2,963,011
CISCO SYS INC	5,918,449	17,123,625	11,205,176
COCA COLA CO	3,393,013	4,916,250	1,523,237
COLGATE-PALMOLIVE CO	4,354,480	8,377,600	4,023,120
COLTV STIF (CASH)	4,665,673	4,665,673	-
COMPAQ COMPUTER CORP	3,903,119	8,399,000	4,495,881
DAYTON-HUDSON CORP	3,936,533	4,801,500	864,967
DELL COMPUTER CORP	2,809,277	12,900,938	10,091,661
DONNELLEY R R & SONS CO	2,259,031	2,328,675	69,644
GEN ELEC CO	3,187,955	11,541,125	8,353,170
GILLETTE CO	4,699,265	10,351,250	5,651,985
HALLIBURTON CO	4,386,103	3,746,081	(640,022)
HARLEY DAVIDSON INC	3,691,196	5,425,000	1,733,804
HOME DEPOT INC	4,706,042	9,369,450	4,663,408
INTEL CORP	925,519	3,520,938	2,595,418
KOHLS CORP	5,141,305	8,310,375	3,169,070
KROGER CO	985,284	1,500,625	515,341
LUCENT TECHNOLOGIES INC	3,481,021	6,987,750	3,506,729
MBNA CORP	3,202,813	7,920,122	4,717,309
MEDTRONIC INC	3,337,870	6,387,750	3,049,880
MERCK & CO INC	5,402,885	13,054,000	7,651,115
MERRILL LYNCH & CO INC	3,108,007	7,841,250	4,733,243
MICROSOFT CORP	3,215,972	5,440,425	2,224,453
MORGAN ST DEAN W. & CO	3,429,068	9,868,500	6,439,432
NATIONSBANK CORP	8,574,203	10,084,406	1,510,203
NOBLE DRILLING CORP	3,970,954	2,856,219	(1,114,736)
PHILIP MORRIS COMPANIES INC	2,077,465	3,366,563	1,289,097
PROCTER & GAMBLE CO	1,837,525	3,023,275	1,185,750
SCHERING-PLOUGH CORP	5,835,200	12,534,300	6,699,100
SEALED AIR CORP	919,558	624,750	(294,808)

SYSTEM HOLDINGS
June 30, 1998
(continued)

	COST	MARKET VALUE	UNREALIZED GAIN/LOSS
SOLECTRON CORP	$ 5,021,071	$ 8,286,313	$ 3,265,241
TELE COMMUNICATIONS INC	2,572,979	8,171,002	5,598,022
TELLABS INC COM	3,729,342	4,369,125	639,783
TRAVELERS GROUP INC	3,414,663	11,530,814	8,116,152
TRAVELERS PPTY CAS CORP	4,104,299	4,673,375	569,076
UNITED HEALTHCARE CORP	6,509,915	6,247,744	(262,172)
UNITED TECHNOLOGIES CORP	3,302,661	4,070,000	767,339
USA WASTE SVCS INC	5,067,591	6,912,500	1,844,909
WAL-MART STORES INC	3,807,359	4,677,750	870,391
WALT DISNEY CO	4,151,288	7,827,156	3,675,868
WORLDCOM GA	6,590,687	9,687,500	3,096,813
TOTAL	**$ 192,973,579**	**$ 331,549,416**	**$ 138,575,837**
ARK ASSETS			
1ST UN CORP COM	$ 3,102,336	$ 3,390,150	287,814
ABBOTT LAB COM	3,123,279	3,653,100	529,821
AETNA INC COM STK	4,436,680	4,323,900	(112,780)
AIR PROD & CHEM INC COM	282,705	256,000	(26,705)
ALLIED SIGNAL INC COM	3,418,091	4,646,063	1,227,971
ALLSTATE CORP COM	1,034,224	2,490,500	1,456,276
ALUM CO AMER	2,177,784	2,103,406	(74,378)
AMER GEN CORP COM	1,267,127	2,128,506	861,380
AMER STORES CO COM	2,470,554	2,692,069	221,514
AMERADA HESS CORP COM	2,387,415	2,563,550	176,135
AMOCO CORP COM	3,198,518	3,118,725	(79,793)
AMP INC COM	3,464,820	2,932,188	(532,632)
ANHEUSER-BUSCH COMPANIES INC	4,485,982	5,020,750	534,768
ARCHER-DANIELS-MIDLAND CO	4,317,259	4,446,873	129,614
AT & T CORP COM STK	2,873,788	2,844,825	(28,963)
ATLC RICHFIELD CO COM	4,033,766	4,335,938	302,171
BAKER HUGHES INC COM	2,774,090	2,516,150	(257,940)
BANC ONE CORP	3,095,706	3,086,431	(9,275)
BAXTER INTL INC COM	4,538,681	4,783,931	245,250
BELL ATLC CORP COM	3,003,764	3,620,800	617,036
BURL NORTHN SANTA FE CORP	3,999,655	4,663,906	664,252
BURL RES INC COM	2,426,762	2,411,500	(15,262)
CHAMPION INTL CORP	1,721,063	1,824,856	103,793
CHASE MANHATTAN CORP	1,979,971	2,884,100	904,129
CHEVRON CORP COM	1,376,153	1,381,875	5,722
CHUBB CORP COM	2,590,186	4,203,613	1,613,427
CIGNA CORP COM	3,167,988	3,864,000	696,012
COLTV STIF (CASH)	12,990,515	12,990,515	-
COMCAST CORP	1,520,916	1,794,255	273,339
CONAGRA INC	3,703,147	3,919,744	216,597

SYSTEM HOLDINGS
June 30, 1998
(continued)

	COST	MARKET VALUE	UNREALIZED GAIN/LOSS
CONS EDISON INC	$ 788,303	$ 971,919	$ 183,616
CONS STORES CORP	2,835,122	2,407,000	(428,122)
CORNING INC	2,156,252	2,164,925	8,673
CROWN CORK & SEAL CO INC	2,290,540	2,327,500	36,960
CSX CORP	3,916,122	3,935,750	19,628
DANA CORP	3,571,291	3,531,000	(40,291)
DEERE & CO	2,600,443	2,594,640	(5,802)
DILLARDS INC CL A	1,802,244	2,208,619	406,375
DOMINION RES INC	1,338,622	1,356,975	18,353
EMERSON ELEC CO	4,145,877	4,262,475	116,598
FEDT DEPT STORES INC	2,575,286	4,105,894	1,530,608
FT JAMES CORP	3,530,574	4,159,050	628,476
GANNETT CO INC	1,892,382	2,508,506	616,124
GEN MILLS INC	3,332,107	3,344,250	12,143
GEN RE CORP	2,671,976	4,309,500	1,637,524
GOODYEAR TIRE & RUBBER CO	1,699,224	1,752,700	53,476
GTE CORP	1,830,346	2,430,813	600,466
HALLIBURTON CO	2,435,368	2,292,975	(142,393)
HERCULES INC VTG	1,179,355	1,019,900	(159,455)
INTL BUSINESS MACH CORP	3,128,845	5,533,963	2,405,118
KIMBERLY-CLARK CORP	2,001,476	1,867,113	(134,364)
LOCKHEED MARTIN CORP	3,460,160	4,044,425	584,265
LOEWS CORP	1,892,263	2,265,250	372,987
MASCO CORP	1,635,058	3,188,350	1,553,292
MAY DEPT STORES CO	996,219	1,539,250	543,031
MINN MNG & MFG CO	3,386,441	3,073,813	(312,629)
MOTOROLA INC	2,908,199	2,617,613	(290,586)
NATIONSBANK CORP	2,619,841	3,289,894	670,053
NATL SEMICONDUCTOR CORP	3,216,765	1,463,438	(1,753,327)
NEWMONT MNG CORP	1,165,485	666,225	(499,260)
OCCIDENTAL PETRO CORP	2,586,274	3,399,300	813,026
PACIFICORP	1,992,259	1,981,950	(10,309)
PPG IND INC	1,738,475	2,587,725	849,250
PRAXAIR INC	4,740,889	4,517,406	(223,482)
RAYTHEON CO CL A	2,078,524	2,201,275	122,751
RAYTHEON CO CL B	1,807,261	2,258,575	451,314
SBC COMMUNICATIONS INC	2,606,253	2,692,000	85,747
SEAGATE TECH	4,144,661	3,402,188	(742,473)
SOUTHERN CO COM	1,955,839	2,284,219	328,380
ST PAUL COMPANIES INC	3,037,042	2,969,613	(67,429)
SUN MICROSYSTEMS INC	3,651,360	3,948,469	297,108
TENET HEALTHCARE CORP	1,719,849	1,790,625	70,776
TENNECO INC	2,438,661	2,222,850	(215,811)
TEX UTILS CO	3,553,911	3,871,125	317,214
TEXACO INC	2,359,762	2,662,063	302,301
TOYS R US INC	1,827,053	1,624,219	(202,834)

SYSTEM HOLDINGS
June 30, 1998
(continued)

	COST	MARKET VALUE	UNREALIZED GAIN/LOSS
UN PAC RES GROUP INC	$ 3,493,418	$ 2,464,019	$ (1,029,399)
UNOCAL CORP	4,854,421	4,536,675	(317,746)
UNUM CORP	1,629,340	2,203,350	574,010
VENATOR GROUP INC	2,733,165	2,096,100	(637,065)
WEYERHAEUSER CO	1,156,739	1,113,119	(43,620)
WORLDCOM GA	297,822	431,094	133,272
TOTAL	**$ 224,368,088**	**$ 243,383,895**	**$ 19,015,807**
CRAMER ROSENTHAL MCGLYNN			
ALLERGAN INC	$ 2,803,811	$ 3,742,463	$ 938,651
ALLMERICA FINL CORP	2,085,645	2,132,000	46,355
AMERADA HESS CORP	2,592,689	2,444,063	(148,626)
APPLIED PWR INC CL A	2,782,974	2,849,688	66,713
ASHLAND INC	2,256,296	2,328,288	71,991
CIN BELL INC	4,998,909	5,246,963	248,054
COASTAL CORP	3,000,509	4,928,763	1,928,254
COLTV STIF	6,967,086	6,967,086	-
COLUMBIA ENERGY GROUP	3,044,799	3,237,375	192,576
COMMSCOPE INC	2,119,599	2,292,684	173,085
COMSAT CORP	2,087,537	3,023,775	936,238
EEX CORP	1,561,005	1,617,188	56,183
ELSAG BAILEY PROC	2,206,639	2,567,469	360,829
FOREST OIL CORP	775,068	933,175	158,107
FRED MEYER INC	2,272,440	5,648,250	3,375,810
GEN INSTR CORP	2,130,252	3,577,875	1,447,623
GOLDEN ST BANCORP INC	1,229,161	3,147,550	1,918,389
GOLDEN ST BANCORP INC	224,581	562,063	337,481
GTECH HLDG	2,642,814	2,516,456	(126,358)
HUSSMANN INTL INC	2,158,107	2,579,259	421,152
INGERSOLL-RAND CO	3,239,259	3,035,906	(203,353)
JEFFERSON-PILOT	477,768	537,660	59,892
JOHNS MANVILLE CORP	1,437,365	2,193,100	755,735
LAIDLAW ENVIRONMENTAL SVCS	1,563,980	1,506,188	(57,792)
MACMILLAN BLOEDEL LTD	2,372,138	1,713,813	(658,326)
MARKETSPAN CORP	2,258,811	2,631,866	373,055
MASCOTECH INC COM	3,077,664	5,160,000	2,082,336
MFC HANCOCK JOHN BK	2,186,044	4,424,038	2,237,994
MFC PILGRIM AMER PRIME	2,399,047	2,484,000	84,953
MONTANA PWR CO	3,014,019	2,866,875	(147,144)
NATL SEMICONDUCTOR	4,169,713	2,674,875	(1,494,838)
OCEAN ENERGY INC	551,287	2,081,763	1,530,476
OWENS ILL INC	2,535,323	6,555,875	4,020,552
PERKIN-ELMER CORP	3,335,925	3,208,875	(127,050)
RAYCHEM CORP	4,488,837	4,502,369	13,532
SEMPRA ENERGY INC	3,133,129	3,270,671	137,542

SYSTEM HOLDINGS
June 30, 1998
(continued)

	COST	MARKET VALUE	UNREALIZED GAIN/LOSS
SHOPKO STORES INC	$ 1,874,671	$ 2,305,200	$ 430,529
SNAP-ON INC	3,754,025	3,142,875	(611,150)
SOVEREIGN BANCORP INC	1,806,786	1,787,053	(19,733)
THOMAS & BETTS CORP	2,643,343	2,728,450	85,107
TORCHMARK CORP	3,705,830	4,016,850	311,020
TRIZEC HAN CORP	2,533,900	2,774,013	240,113
UCAR INTL INC	2,726,309	2,548,069	(178,240)
UNIFI INC	2,907,779	2,746,850	(160,929)
VENCOR INC	593,156	402,375	(190,781)
WALTER INDS INC	1,428,995	1,960,031	531,036
WELLPOINT HLTH NETWORKS INC	2,455,992	4,106,260	1,650,268
WHITMAN CORP	2,068,899	2,906,181	837,283
WORLD COLOR PRESS INC	2,277,422	2,656,500	379,078
TOTAL	**$ 120,957,341**	**$ 145,271,009**	**$ 24,313,668**
JP MORGAN MULTI-MARKET FUND I	**$ 27,524,063**	**$ 42,971,826**	**$ 15,447,764**
JP MORGAN MULTI-MARKET FUND II	**$ 32,471,152**	**$ 41,143,089**	**$ 8,671,937**
PEREGRINE			
ADR ELAN PLC	$ 1,460,190	$ 4,185,972	$ 2,725,782
ADV DIGITAL INFO CORP	2,709,800	2,271,450	(438,350)
AGOURON PHARMACEUTICALS INC	1,801,948	1,876,344	74,395
ALREF	1,188,868	1,203,600	14,732
ALT ULTRASOUND INC	2,337,747	2,728,375	390,628
ALTERNATIVE LIVING SVCS INC	1,711,260	1,992,600	281,340
AMER PWR CONVERSION	1,998,372	3,261,000	1,262,628
AMRESCO	2,764,240	3,384,325	620,085
ARK BEST CORP	1,985,974	1,693,125	(292,849)
AUTODESK INC	2,783,870	3,043,650	259,780
AVANT CORP	1,958,627	1,977,525	18,898
AWARE INC	3,774,111	3,695,794	(78,317)
BAKER J INC	1,981,543	1,941,344	(40,199)
BARR LABS INC	2,149,953	2,373,075	223,122
BORDERS GROUP INC	951,038	3,503,900	2,552,862
BUFFETS INC	1,545,839	1,648,756	102,918
CAP AUTOMOTIVE REIT	2,536,500	2,399,106	(137,394)
CAP CORP	2,106,000	2,367,565	261,565
CENT GARDEN & PET	2,251,439	2,561,588	310,149
CHS ELECTR INC	3,126,023	2,834,975	(291,048)
COACH USA INC	1,798,464	3,093,375	1,294,911
COLTV STIF (CASH)	10,370,906	10,370,906	-
COMSTOCK RES INC	1,676,192	1,103,725	(572,467)
COOPER CAMERON CORP	3,670,588	4,080,000	409,412

SYSTEM HOLDINGS
June 30, 1998
(continued)

	COST	MARKET VALUE	UNREALIZED GAIN/LOSS
CORNELL CORRECTIONS INC	$ 680,436	$ 1,150,800	$ 470,364
COULTER PHARMACEUTICAL INC	2,161,580	3,609,127	1,447,547
CYTYC CORP	1,300,005	1,440,394	140,389
DVI INC COM STK	2,764,559	3,735,750	971,191
EKCO GROUP INC	2,205,550	2,122,313	(83,238)
EVEREST REINS HLDGS INC	1,621,499	3,078,844	1,457,345
FIRSTCITY FINL CORP	2,253,975	2,125,700	(128,275)
GALEY & LORD INC	1,309,354	1,158,763	(150,591)
GEN CABLE CORP	3,342,675	4,582,463	1,239,788
GENZYME CORP	3,839,014	4,125,788	286,773
GLOBAL INDS LTD	1,132,250	1,091,813	(40,438)
GOLDEN ST BANCORP INC	3,838,239	3,513,475	(324,764)
GOLDEN ST BANCORP INC	701,289	627,406	(73,883)
GULFSTREAM AEROSPACE CORP	2,750,167	5,040,600	2,290,433
HA LO INDS INC	2,013,340	1,957,763	(55,578)
HAWK CORP CL A	2,109,765	1,877,063	(232,703)
HELLER FINL INC CL A	3,274,180	3,309,000	34,821
HESKA CORP	1,571,187	1,630,613	59,425
INDEPENDENCE CMNTY BK CORP	3,970,095	3,894,700	(75,395)
INPRISE CORP	2,372,628	1,894,638	(477,990)
INTEGRATED ELECTRICAL SVCS	1,930,272	2,594,113	663,841
INTRAWEST CORP	1,919,887	2,209,075	289,188
IRI INTL CORP	1,110,323	941,700	(168,623)
JDA SOFTWARE GROUP	1,719,356	2,327,500	608,144
JUST FOR FEET INC	1,396,828	1,918,050	521,222
LANDRYS SEAFOOD RESTRANT	993,467	810,611	(182,856)
LIFECELL CORP	2,128,988	2,668,050	539,063
LOMAK PETE INC	1,308,401	1,212,838	(95,564)
MARINE DRILLING COS INC	3,852,672	2,780,800	(1,071,872)
MAY & SPEH INC	1,377,433	2,098,800	721,367
MEDAPHIS CORP	1,000,321	600,600	(399,721)
METRO GOLDWYN MAYER INC	1,965,880	2,156,000	190,120
MIAMI COMPUTER SUP CORP	1,897,600	1,912,425	14,825
MICHAELS STORES INC	2,374,596	3,630,415	1,255,819
MICREL INC	2,050,006	1,829,750	(220,256)
NATIONAL-OILWELL INC	1,784,539	1,375,481	(409,058)
NAUTICA ENTERPRISES INC	3,793,804	3,751,069	(42,736)
NOBLE DRILLING CORP	1,598,108	2,360,531	762,423
NOVEL DENIM HLDG LTD	2,982,944	3,486,600	503,656
OMNIQUIP INTL INC	2,058,577	2,242,200	183,623
ORTHODONTIC CTR AMER	4,192,822	5,016,625	823,804
PARKER DRILLING CO	894,464	620,088	(274,377)
PENTACON INC	1,020,000	1,211,250	191,250
PENTAIR INC	5,640,130	6,277,250	637,120
PETSMART INC	1,280,715	1,288,000	7,285

SYSTEM HOLDINGS
June 30, 1998
(continued)

	COST	MARKET VALUE	UNREALIZED GAIN/LOSS
PLATINUM TECH INC	$ 2,405,983	$ 2,881,956	$ 475,973
PROTEIN DESIGN LABS INC	1,706,381	1,026,404	(679,976)
QUORUM HLTH GROUP INC	1,890,783	2,712,275	821,492
R & B FALCON CORP	907,952	694,588	(213,365)
RENTAL SVC CORP	1,471,200	2,061,213	590,013
ROWAN COMPANIES INC	1,370,390	1,084,613	(285,778)
SABRATEK CORP	2,237,061	1,583,400	(653,661)
SANTA FE INTL CORP	1,205,785	1,104,125	(101,660)
SCP POOL CORP	1,216,800	1,656,200	439,400
SEA CONTAINERS LTD	1,932,511	2,046,375	113,864
SEAGATE TECH	1,021,151	1,029,013	7,861
SECURE COMPUTING CORP	3,452,896	2,672,175	(780,721)
SEPRACOR INC	2,637,567	4,743,450	2,105,883
SKYWEST INC	1,545,359	2,962,400	1,417,041
SNYDER COMMUNICATIONS	3,899,260	4,158,000	258,740
STAGE STORES INC	1,774,599	3,072,475	1,297,876
SUPERIOR ENERGY SVCS	1,062,058	534,094	(527,964)
SWIFT TRANSN INC	2,160,077	2,589,494	429,417
SYMANTEC CORP	3,339,518	4,268,825	929,307
SYNOPSYS INC	2,767,907	3,943,650	1,175,743
TECH SOLUTIONS	1,081,351	1,619,231	537,880
TITANIUM METALS CORP	1,915,508	1,696,606	(218,902)
TOMMY HILFIGER	2,316,989	2,681,250	364,261
TOTAL RENAL CARE HLDGS	3,835,017	4,826,550	991,533
TOWER AUTOMOTIVE INC	1,995,626	2,855,475	859,849
U S HOME & GARDEN INC	1,252,619	1,826,319	573,700
UNICAPITAL CORP	2,394,000	2,417,625	23,625
UNIGRAPHICS SOLUTIONS	2,021,600	2,021,600	-
US FREIGHTWAYS CORP	2,051,034	2,555,263	504,229
VALASSIS COMMUNICATIONS INC	2,320,640	3,493,763	1,173,122
WABASH NATL CORP	3,243,745	2,907,175	(336,570)
WARNACO GROUP INC CL A	3,202,666	5,440,488	2,237,821
WEATHERFORD INC	906,968	854,700	(52,268)
WORLD ACCESS INC	1,843,355	1,476,000	(367,355)
XILINX INC COM	4,544,364	3,736,600	(807,764)
TOTAL	**$ 233,054,130**	**$ 266,112,271**	**$ 33,058,141**
STATE STREET WILSHIRE 5000 INDEX	**$ 979,738,106**	**$ 1,481,325,911**	**$ 501,587,805**
STATE STREET GROWTH INDEX	**$ 278,124,634**	**$ 423,009,617**	**$ 144,884,983**
STATE STREET VALUE INDEX	**$ 153,264,087**	**$ 206,382,911**	**$ 53,118,824**
TOTAL DOMESTIC EQUITY	**$2,242,475,179**	**$ 3,181,149,944**	**$ 938,674,766**

SYSTEM HOLDINGS
June 30, 1998
(continued)

	COST	MARKET VALUE	UNREALIZED GAIN/LOSS
FIXED INCOME			
ALLIANCE FIXED INCOME			
FOREIGN ASSETS HELD AT TNT-LDN	$ 245,619,360	$ 254,118,374	$ 8,499,013
TOTAL	$ 245,619,360	$ 254,118,374	$ 8,499,013
JP MORGAN INTERNATIONAL	$ 20,207,727	$ 20,573,543	$ 365,816
JP MORGAN MORTGAGES	$ 228,167,560	$ 260,905,926	$ 32,738,366
JP MORGAN PRIVATE PLACEMENTS	$ 98,362,216	$ 129,166,151	$ 30,803,935
LOOMIS SAYLES			
COLTV STIF (CASH)	$ 50,010,772	$ 50,010,772	
TOTAL	$ 50,010,772	$ 50,010,772	
STANDISH AYER & WOOD			
COLTV STIF (CASH)	$ 100,651,518	$ 100,651,518	
TOTAL	$ 100,651,518	$ 100,651,518	
STATE STREET FIXED CORE	$1,139,578,435	$ 1,300,404,658	$ 160,826,223
TOTAL FIXED INCOME	$1,882,597,589	$ 2,115,830,942	$ 233,233,353
INTERNATIONAL EQUITY			
BANKERS TRUST EAFE INDEX			
BANKERS TR INTL INDEX FD	$ 79,984,304	$ 144,510,449	$ 64,526,145
MARTIN CURRIE			
TOTAL ASSETS HELD	$ 198,508,645	$ 221,762,919	$ 23,254,274
ROWE PRICE FLEMING			
TOTAL ASSETS HELD	$ 108,603,997	$ 141,057,927	$ 32,453,930
WALTER SCOTT AND PARTNERS			
TOTAL ASSETS HELD	$ 116,711,773	$ 135,460,819	$ 18,749,047

SYSTEM HOLDINGS
June 30, 1998
(continued)

	COST	MARKET VALUE	UNREALIZED GAIN/LOSS
OTHER INVESTMENTS			
FINANCE AUTHORITY OF MAINE			
HARDWOOD MGMT	$ 1,070,713	$ 1,070,713	-
ACORN CO. MORTGAGE	895,372	895,372	-
SPENCER PRESS	4,181,816	4,181,816	-
TOTAL	**$ 6,147,902**	**$ 6,147,902**	**-**
GROUP LIFE RESERVE			
JP MORGAN GROUP LIFE			
FFCB CONS SYSTEMWIDE	$ 9,590,521	$ 9,592,000	$ 1,479
US TREAS 5.0 NT	2,193,546	2,213,939	20,393
US TREAS 5.50 NT	4,971,094	5,001,300	30,206
US TREAS 6.25 NT	2,515,820	2,516,200	380
US TREAS SER AB-1999 5.875 NT	10,496,166	10,424,666	(24,500)
TOTAL	**$ 29,720,148**	**$ 29,748,105**	**$ 27,958**

MAINE STATE RETIREMENT SYSTEM

ACTUARIAL VALUATION: STATE/TEACHER - 1998

SECTION I
BOARD SUMMARY

Overview

This report presents the results of our June 30, 1998, actuarial valuation of the retirement plans 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, 1998 including the effect of the recent changes in benefits, and financing methods and assumptions.

Legislative changes effective July 1, 1998, created benefit changes in the System. In addition, actuarial assumptions were changed by the System's Board of Trustees on recommendation by the actuary, based on the Experience Study performed earlier this year. Finally, the amortization period for unfunded liabilities was shortened by legislative action. A summary of these changes are outlined below.

Benefit Change

- Creation of 1998 Special Plan for employees in the following capacities: Maine State Police Officers, certain Maine State Prison employees, Airplane Pilots, Forest Rangers, Inland Fisheries and Wildlife Officers, Marine Resources Officers, and Liquor Inspectors hired on or after September 1, 1984; and Defense, Veterans and Emergency Management Firefighters employed at Bangor International Airport on June 30, 1998. Retirement eligibility requirements and benefit computations are described in Appendix B.

Financing Changes

- Shorten amortization period from 30 to 25 years from June 30, 1998
- Repool special plans to reflect the 1998 Special Plan's creation.

Actuarial Assumption Changes

- Reduce inflation/general salary increase growth from 6.0% to 5.5%
- Replace active member mortality table with Table UP94
- Adjust certain withdrawal, retirement and disability decrements.

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 17.35%, which is slightly higher than the 17.23% produced in last year's valuation. The combination of benefit, financing and assumption changes results in an increased employer contribution rate; the amount of the increase was offset by investment returns at greater than the actuarially assumed rate of 8%, resulting in the 0.12% increase.

On June 30, 1998, the total actuarial liability for the System's state employee and teacher plans stood at $6.6 billion, up from $6.1 billion at the end of the previous year. Similarly, the total actuarial value of assets increased from $3.5 billion on June 30, 1997, to $4.2 billion on June 30, 1998. Finally, the unfunded actuarial liability decreased from $2.6 billion on June 30, 1997 to $2.4 billion on June 30, 1998.

Two additional items of note for this valuation 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, 1998, valuation report will be issued.[1]

Second, this is the second year in which we measure experience gains/losses for purposes of the 1995 Constitutional amendment. In 1998, the plans experienced a net gain of $385 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.

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.

[1] 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 FY 1997 and notes thereto. As of June 30,1998 the status of this litigation was unresolved.

System Trends

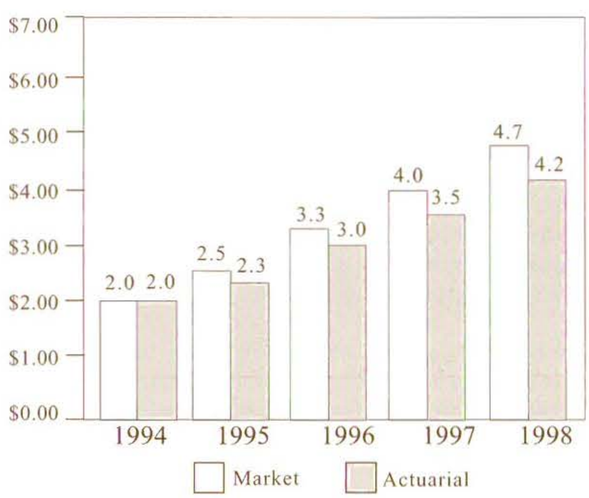
Retirement System Contribution Rates*

The State contribution rate, while increasing slightly in the past year, has been relatively stable over the past few years.

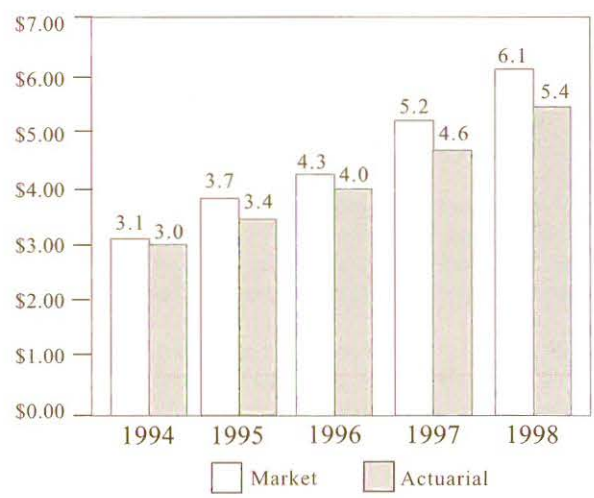
*Rates do not include retiree health insurance (separately established by the State) or costs of System operations. Rates shown are composite rates for the State Regular employees, Teachers, and the State special plan groups: State Police, Inland Fisheries and Wildlife Officers, Marine Resources Officers, Prison Employees, Liquor Inspectors and Forest Rangers.

Retirement System Assets

State Employee and Teacher Assets
(in billions)

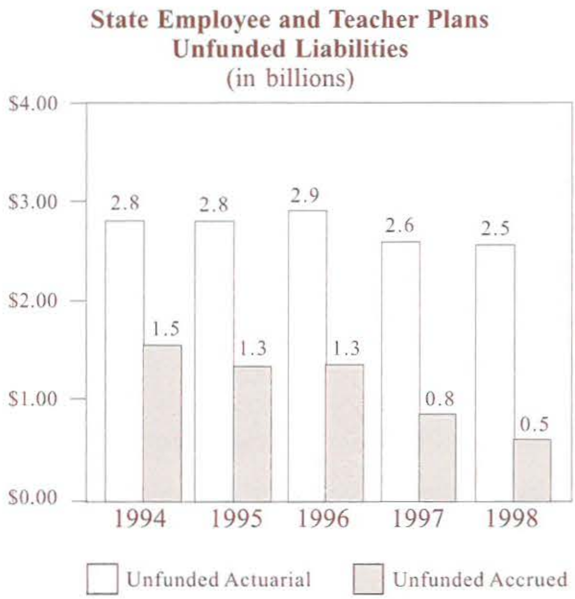


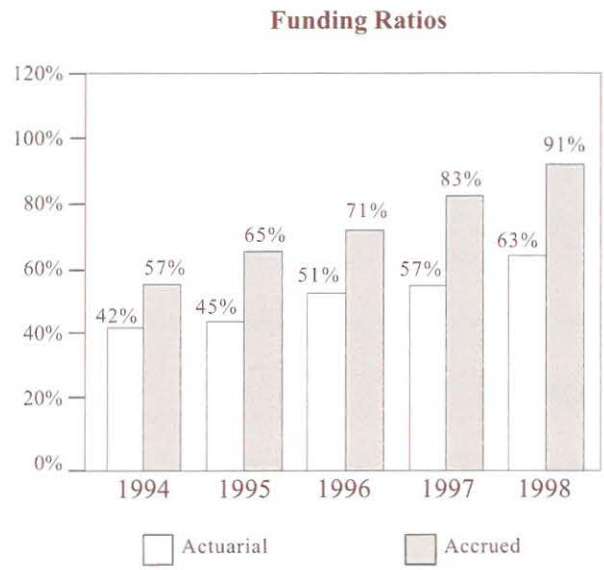
System Total Assets**
(in billions)



The System's assets earned about 17.7% from 1997 to 1998 when measured on Market Values. For funding purposes we use a smoothed value of assets known as the Actuarial Value. On this basis, the assets returned 16.0% 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.

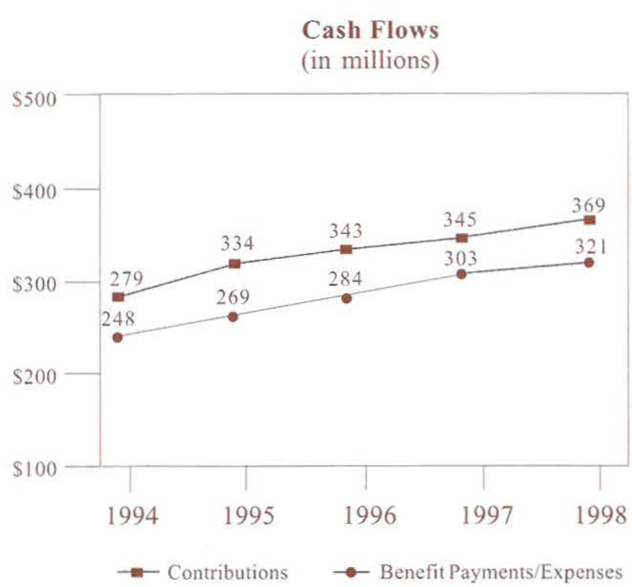




Unfunded actuarial liabilities have steadily decreased over the past few years.

Both the actuarial and the accrued funding ratios have increased steadily over the past few years.

The net cash flow of the System, excluding investments, has maintained a positive balance over the past few years.



SYSTEM EXPERIENCE
July 1, 1997 – June 30, 1998

The key indicator of overall experience of the System is the stability of the composite (i.e., State employer regular and special plans and teacher plan) 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, 1998, was better than expected but when coupled with the benefit, financing and assumption changes, resulted in a slight increase in the contribution rate of 0.12%.

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

ASSETS

As of June 30, 1998, the market value of System assets was $6.14 billion, an increase of $0.97 billion from the 1997 figure of $5.17 billion.

When measured on a method that smooths market fluctuations, the actuarial value of System assets increased by $0.79 billion, to $5.39 billion in 1998 from $4.60 billion in 1997. The components of this change, in millions, are:

	Actuarial			Market
+	$ 369	employer and member contributions	+	$ 369
-	321	payment of benefits and expenses,	-	321
+	370	investment return per 8.0% assumption,	+	415
+	372	actuarial investment gain (actuarial rate of return @ 16.0%)		
		market investment gain (market rate of return @ 17.7%)	+	505
=	$ 790	total increase in assets	=	$ 968

The investment gain for the State employee and teacher plans only, excluding participating local districts, was $286.5 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, 1998, the State's unfunded actuarial liability was $2.45 billion. This compares to June 30, 1997, unfunded actuarial liability of $2.61 billion, a decrease of $158 million. This compares with an expected increase of $91 million. The components of this decrease, in millions, are as follows:

Unfunded Actuarial Liability, June 30, 1997	$ 2,612
• increase expected	91
• decrease due to asset gain (investment return)	(287)
• effect of assumption changes	136
• other (gains)/losses (see below)	(98)
Unfunded Actuarial Liability, June 30, 1998	$ 2,454

The unexpected decrease in unfunded actuarial liabilities from "other (gains)/losses" of $98 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, 1998. The difference between this figure and the market value of System assets represents the unfunded accrued benefit liability. As of June 30, 1998, the unfunded accrued benefit liability was $0.46 billion, down from $0.83 billion on June 30, 1997.

CONTRIBUTIONS

In Section IV of this report, we present detailed information on the development of State employer contribution rates, calculated as of June 30, 1998. 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.

CONTRIBUTIONS (continued)

The composite contribution rate for all State employees and teachers increased from 17.23% of payroll as of June 30, 1997, to 17.35% of payroll as of June 30, 1998. The primary components of this change are shown below.

Contribution Rate as of June 30, 1997	17.23%
Investment Gain (Due to Higher than Expected Investment Returns)	(1.06)
Changes in assumptions	1.37
Net effect of Other Losses and Gains	(0.36)
Effect of Aggregate Payroll Growth at less than the 6.0% Assumption	0.17
Contribution Rate as of June 30, 1998	17.35%

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 acted to increase or decrease the rate resulted in total in an increase in the contribution rate of 0.12%.

SUMMARY OF PRINCIPAL RESULTS
TOTAL (State and Teacher)*

1. **Participant Data**	June 30, 1998	June 30, 1997
Number of:		
Active Members	39,681	39,297
Retired Members and Beneficiaries	19,055	18,794
Survivors and Disabled Members	2,398	2,277
Vested Deferred Members	1,186	1,438
Total Membership	62,320	61,806
Annual Salaries of Active Members	$ 1,152,172,667	$ 1,109,300,071
Annual Retirement Allowances for Retired Members and Beneficiaries (includes survivors and disabled employees)	$ 256,882,183	$ 243,512,089
2. **Assets and Liabilities**		
Actuarial Liability	$ 6,612,948,281	$ 6,142,779,464
Actuarial Value of Assets	4,158,926,645	3,530,721,113
Unfunded Actuarial Liability	$ 2,454,021,636	$ 2,612,058,351
Accrued Liability	$ 5,189,989,996	$ 4,797,737,657
Market Value of Assets	4,732,073,875	3,964,028,611
Unfunded Accrued Liability	$ 457,916,121	$ 833,709,046
Accrued Benefit Funding Ratio	91.18%	82.62%
3. **Contribution Results as a Percent of Payroll (composite rate for all State Employees and Teachers)****		
Normal Cost	6.10%	7.22%
Unfunded Actuarial Liability	11.25	10.01
Total	17.35%	17.23%

** Excludes participating local districts*

*** Does not include the cost of retiree health insurance, which is separately established by the State, or the cost of System operations.*

SUMMARY OF PRINCIPAL RESULTS
TEACHERS*

1. **Participant Data**	**June 30, 1998**	**June 30, 1997**
Number of:		
Active Members	25,876	25,545
Retired Members and Beneficiaries	9,585	9,383
Survivors and Disabled Members	864	806
Vested Deferred Members	685	880
Total Membership	37,010	36,614
Annual Salaries of Active Members	$ 739,432,766	$ 713,084,127
Annual Retirement Allowances for Retired Members and Beneficiaries (includes survivors and disabled employees)	$ 137,618,253	$ 129,462,550
2. **Assets and Liabilities**		
Actuarial Liability	$ 4,208,845,895	$ 3,903,840,151
Actuarial Value of Assets	2,429,005,004	2,034,445,808
Unfunded Actuarial Liability	$ 1,779,840,891	$ 1,869,394,343
Accrued Liability	$ 3,171,165,276	$ 2,931,565,280
Market Value of Assets	2,763,749,424	2,284,123,025
Unfunded Accrued Liability	$ 407,415,852	$ 647,442,255
Accrued Benefit Funding Ratio	87.15%	77.91%
3. **Contribution Results as a Percent of Payroll****		
Normal Cost	6.00%	7.25%
Unfunded Actuarial Liability	12.72	11.14
Total	18.72%	18.39%

* *Includes both MTRA and Old System teachers.*

** *Does not include the cost of retiree health insurance, which is separately established by the State, or the cost of System operations.*

SUMMARY OF PRINCIPAL RESULTS
TOTAL STATE

	June 30, 1998	June 30, 1997
1. Participant Data		
Number of:		
Active Members	13,805	13,752
Retired Members and Beneficiaries	9,470	9,411
Survivors and Disabled Members	1,534	1,471
Vested Deferred Members	501	558
Total Membership	25,310	25,192
Annual Salaries of Active Members	$ 412,739,901	$ 396,215,944
Annual Retirement Allowances for Retired Members and Beneficiaries (includes survivors and disabled employees)	$ 119,263,930	$ 114,049,539
2. Assets and Liabilities		
Actuarial Liability	$ 2,404,102,386	$ 2,238,939,313
Actuarial Value of Assets	1,729,921,641	1,496,275,305
Unfunded Actuarial Liability	$ 674,180,745	$ 742,664,008
Accrued Liability	$ 2,018,824,720	$ 1,866,172,377
Market Value of Assets	1,968,324,451	1,679,905,586
Unfunded Accrued Liability	$ 50,500,269	$ 186,266,791
Accrued Benefit Funding Ratio	97.50%	90.02%
3. Contribution Results as a Percent of Payroll*		
Normal Cost	6.27%	7.17%
Unfunded Actuarial Liability	8.63	7.96
Total	14.90%	15.13%

* *Does not include the cost of retiree health insurance, which is separately established by the State, or the cost of System operations.*

SUMMARY OF PRINCIPAL RESULTS
STATE REGULAR

	June 30, 1998	June 30, 1997
1. Participant Data		
Number of:		
Active Members*	12,857	12,995
Retired Members and Beneficiaries	8,646	8,610
Survivors and Disabled Members	1,526	1,463
Vested Deferred Members	501	558
Total Membership	23,530	23,626
Annual Salaries of Active Members	$ 379,492,795	$ 370,978,045
Annual Retirement Allowances for Retired Members and Beneficiaries (includes survivors and disabled employees)	$ 104,476,166	$ 99,885,900
2. Assets and Liabilities		
Actuarial Liability	$ 2,108,012,840	$ 1,974,119,866
Actuarial Value of Assets	1,514,558,021	1,319,297,396
Unfunded Actuarial Liability	$ 593,454,819	$ 654,822,470
Accrued Liability	$ 1,746,968,824	$ 1,613,652,550
Market Value of Assets	1,723,281,283	1,481,208,076
Unfunded Accrued Liability	$ 23,687,541	$ 132,444,474
Accrued Benefit Funding Ratio	98.64%	91.79%
3. Contribution Results as a Percent of Payroll (State Portion only)**		
Normal Cost	6.00%	6.65%
Unfunded Actuarial Liability	8.26	7.50
Total	14.26%	14.15%

* *The 1998 number reflects re-pooling of 179 special plan members who were transferred by law to the 1998 Special Plan and had previously been included with the State Regulars.*

** *Does not include the cost of retiree health insurance, which is separately established by the State, or the cost of System operations.*

SUMMARY OF PRINCIPAL RESULTS
COMPOSITE SPECIALS

1. Participant Data	June 30, 1998	June 30, 1997
Number of:		
Active Members*	948	757
Retired Members and Beneficiaries	824	801
Survivors and Disabled Members	8	8
Vested Deferred Members	0	0
Total Membership	1,780	1,566
Annual Salaries of Active Members	$ 33,247,106	$ 25,237,899
Annual Retirement Allowances for Retired Members and Beneficiaries (includes survivors and disabled employees)	$ 14,787,764	$ 14,163,639
2. Assets and Liabilities		
Actuarial Liability	$ 296,089,546	$ 264,819,447
Actuarial Value of Assets	215,363,620	176,977,909
Unfunded Actuarial Liability	$ 80,725,926	$ 87,841,538
Accrued Liability	$ 271,855,896	$ 252,519,827
Market Value of Assets	245,043,168	198,697,510
Unfunded Accrued Liability	$ 26,812,728	$ 53,822,317
Accrued Benefit Funding Ratio	90.14%	78.69%
3. Contribution Results as a Percent of Payroll**		
Normal Cost	9.32%	14.88%
Unfunded Actuarial Liability	12.83	14.79
Total	22.15%	29.67%

* *The 1998 number reflects re-pooling of 179 special plan members who were transferred by law to the 1998 Special Plan and had previously been included with the State Regulars.*

** *Does not include the cost of retiree health insurance, which is separately established by the State, or the cost of System operations.*

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-1shows the market value of System assets as of June 30, 1998, 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) [=$1,484,875,427].

(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 [=$4,626,972,449].

(c) Return = (a) Increase in assets divided by (b) Adjusted actuarial value of assets [=32.09%].

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%). [32.09% - 8.00% = 24.09%]

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 * 24.09%) = 16.03%)

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, 1998, 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.

TABLE II-1
INVESTMENT CATEGORIES AT MARKET VALUE

Asset Category	June 30, 1998
Bonds & Cash Equivalents	$ 2,347,900,290
Stocks	3,785,633,467
Land & Buildings	2,313,031
TOTAL	$ 6,135,846,788

TABLE II-2
ALLOCATION OF MARKET VALUE OF ASSETS

	Allocation to: Member Contribution Fund	Retirement Allowance Fund	Total
State Employees	$ 432,342,662	$ 1,535,981,789	$ 1,968,324,451
MTRA Teachers	683,152,850	2,080,596,574	2,763,749,424
Judges	3,684,297	27,014,452	30,698,749
Legislators	710,905	4,370,581	5,081,486
Subtotal State	$ 1,119,890,714	$ 3,647,963,396	$ 4,767,854,110
Participating Districts	149,940,383	1,218,052,295	1,367,992,678
TOTAL	$ 1,269,831,097	$ 4,866,015,691	$ 6,135,846,788

TABLE II-3
ALLOCATION OF ACTUARIAL VALUE OF ASSETS

	Allocation to: Member Contribution Fund	Retirement Allowance Fund	Total
State Employees	$ 432,342,662	$ 1,297,578,979	$ 1,729,921,641
MTRA Teachers	683,152,850	1,745,852,154	2,429,005,004
Judges	3,684,297	23,296,230	26,980,527
Legislators	710,905	3,755,113	4,466,018
Subtotal State	$ 1,119,890,714	$ 3,070,482,476	$ 4,190,373,190
Participating Districts	149,940,383	1,052,361,472	1,202,301,855
TOTAL	$ 1,269,831,097	$ 4,122,843,948	$ 5,392,675,045

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 the 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 Entry Age Normal method is described in greater detail in Section IV.

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. The methodology for developing the unfunded actuarial liability rate is described in greater detail in Section IV.

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 by the Trustees. This period was legislatively extended to 35 years effective with the June 30, 1993 valuation. By a Constitutional amendment adopted at referendum in 1995, the amortization period cannot exceed 31 years from July 1, 1997. In 1998, the Legislature established a 25-year amortization period commencing June 30, 1998, shortening the Constitutionally-permitted period by five years. Payments to fund the actuarial liability are calculated as a level percentage of payroll.

In Table III-1 we have summarized the actuarial liabilities as of June 30, 1998, 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 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.

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 Employees	Teachers*	All State Employees
1. Active employees			
(a) Current accrued benefits	$ 751,394,980	$ 1,654,990,904	$ 2,406,385,884
(b) Future benefit accruals	807,292,067	1,871,476,105	2,678,768,172
(c) Total active projected benefits	$ 1,558,687,047	$ 3,526,467,009	$ 5,085,154,056
2. Inactive Employees	$ 1,267,429,740	$ 1,516,174,372	$ 2,783,604,112
3. Total Present Value of Projected Benefits (1 + 2)	$ 2,826,116,787	$ 5,042,641,381	$ 7,868,758,168
4. Future Contributions	$ 422,014,401	$ 833,795,486	$ 1,255,809,887
5. Actuarial Liability (3 - 4)	$ 2,404,102,386	$ 4,208,845,895	$ 6,612,948,281
6. Invested Assets (Actuarial Value)	$ 1,729,921,641	$ 2,429,005,004	$ 4,158,926,645
7. Unfunded Actuarial Liability (5 - 6)	$ 674,180,745	$ 1,779,840,891	$ 2,454,021,636
8. Actuarial Benefit Funding Ratio (6 / 5)	72.0%	57.7%	62.9%

TABLE III-2
ACCRUED BENEFIT LIABILITIES

	State Employees	Teachers*	All State Employees
1. Present Value of Accrued Benefits			
(a) Employees terminated with vested rights	$ 19,391,102	$ 31,252,276	$ 50,643,378
(b) Retired employees	1,248,038,638	1,484,922,096	2,732,960,734
(c) Active employees	751,394,980	1,654,990,904	2,406,385,884
(d) Total	$ 2,018,824,720	$ 3,171,165,276	$ 5,189,989,996
2. Invested Assets (Market Value)	$ 1,968,324,451	$ 2,763,749,424	$ 4,732,073,875
3. Unfunded Present Value of Accrued Benefits (1-2)	$ 50,500,269	$ 407,415,852	$ 457,916,121
4. Accrued Benefit Funding Ratio (2/1)	97.5%	87.2%	91.2%

* *Includes both MTRA and 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 requirements and funding progress of the State employee and teacher plan(s).

Member contribution rates are set by statute.

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. 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 the member's 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 that, when applied to each year's payroll, is sufficient to amortize the unfunded actuarial liability over 25 years from June 30, 1998.

Total Contribution Rate Summary

In Table IV-1 we present total contribution rates, determined as of June 30, 1998. These were developed using actuarial assumptions and methods described in Appendix C. The State's budget cycle and process are such that this FY 1998 actuarial valuation provides the basis for the State's employer contributions for both years of the FY 2000-2001 biennium.

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 1999/2000

	NORMAL COST	UNF ACTRL LIAB	TOTAL CONTRIBUTION RATE
STATE EMPLOYEES	6.00%	8.26%	14.26%
SPECIAL GROUPS			
State Police (Closed Plan)	17.80%	24.50%	42.30%
Marine Resources Officers (Closed Plan)	17.80%	24.50%	42.30%
Inland Fisheries & Wildlife Officers (Closed Plan)	17.80%	24.50%	42.30%
Prison Employees (Closed Plan)	9.00%	12.39%	21.39%
Liquor Inspectors (Closed Plan)	8.20%	11.29%	19.49%
Forest Rangers (Closed Plan)	7.30%	10.05%	17.35%
1998 Special Plan	6.85%	9.43%	16.28%
MTRA TEACHERS	6.00%	12.72%	18.72%

* Does not include the cost of retiree health insurance, which is separately established by the State, or the cost of System operations.

** These exact rates are not necessarily those that are in fact used in the State's budget/budget process, principally because the State develops its own salary projections for member groups which may be different than those used in the valuation.

TABLE IV-2
June 30, 1998, Valuation
DERIVATION OF UNFUNDED ACTUARIAL LIABILITY RATES

	STATE REGULAR	SP, MRO IF&WO[1]	PRISON EMPLOYEES	LIQUOR INSPECTORS	FOREST RANGERS	1998 SPECIAL PLAN	ALL STATE EMPLOYEES	MTRA TEACHERS
1. Present Value of Future Benefits	2,501,104,050	216,352,283	37,155,146	3,879,882	21,556,470	46,068,956	2,826,116,787	5,042,641,381
2. Normal Cost Rate	6.00%	17.80%	9.00%	8.20%	7.30%	6.85%	6.27%[2]	6.00%
3. Present Value of Future Payroll	2,879,789,090	6,928,454	9,687,877	1,204,566	7,939,532	154,344,686	3,059,894,205	6,108,391,838
4. Present Value of Future Normal Costs: (2) x (3)	172,787,345	1,233,265	871,909	98,774	579,586	10,572,611	186,143,490	366,503,510
5. Present Value of Future Member Contributions	220,303,865	599,311	838,001	92,149	686,770	13,350,815	235,870,911	467,291,976
6. Actuarial Liability: (1) - (4) - (5)	2,108,012,840	214,519,707	35,445,236	3,688,959	20,290,114	22,145,530	2,404,102,386	4,208,845,895
7. Actuarial Value of Assets	-	-	-	-	-	-	1,729,921,641	2,429,005,004
8. Unfunded Actuarial Liability (UAL): (6) - (7)	-	-	-	-	-	-	674,180,745	1,779,840,891
9. Estimated Payroll	-	-	-	-	-	-	412,739,901	739,432,766
10. Amortization Factor	-	-	-	-	-	-	18.9223	18.9223
11. Unfunded Actuarial Liability Rate: (8)/(9)/(10)	-	-	-	-	-	-	8.63%[3]	12.72%
12. Allocation of UAL Rate to Plans	8.26%	24.50%	12.39%	11.29%	10.05%	9.43%	N/A	N/A

[1] SP=State Police; MRO = Marine Resources Officers; IF&WO = Inland Fisheries & Wildlife Officers

[2] The average normal cost rate is based on valuation payrolls.

[3] The Pooled UAL rate is allocated amongst State Regular and Special Groups on the basis of the ratio of the 6.27% aggregate normal cost rate as compared to the individual normal cost rates.

APPENDIX A
SUMMARY OF MEMBERSHIP DATA
ACTIVE MEMBER DATA

	Count	Average Current Age	Average Service	Average Valuation Pay
Teachers	25,876	44.2	13.7	$ 28,576
State Regular	12,857	45.0	13.0	$ 29,516
Forest Rangers (Closed Plan)	47	46.4	21.6	$ 43,867
Inland Fisheries & Wildlife Officers (Closed Plan)	34	47.4	23.3	$ 40,811
Liquor Inspectors (Closed Plan)	9	50.7	24.7	$ 38,251
Prison Employees (Closed Plan)	92	48.6	20.7	$ 36,920
State Police (Closed Plan)	103	44.8	20.0	$ 45,022
Marine Resources Officers (Closed Plan)	16	45.6	21.4	$ 43,051
1998 Special Plan	647	35.4	7.3	$ 32,041
State Totals (Excludes Teachers)	13,805	44.6	12.9	$ 29,898

NON-ACTIVE MEMBER DATA
TEACHERS

	Count	Total Annual Benefit	Average Annual Benefit
Retired (Options 0-4)	8,115	$ 118,639,949	$ 14,620
Retired (Option 4 Concurrent Beneficiary)	1,002	$ 3,624,015	$ 3,617
Disabilities/1122	11	$ 181,746	$ 16,522
Disabilities/3 and 3-A	320	$ 6,644,354	$ 20,764
Beneficiaries	683	$ 7,144,905	$ 10,461
Pre-Retirement Death Benefits	318	$ 1,383,284	$ 4,350
Terminated Vested	685	$ 4,526,160	$ 6,608

NON-ACTIVE MEMBER DATA
STATE REGULAR

	Count	Total Annual Benefit	Average Annual Benefit
Retired (Options 0-4)	6,360	$ 76,717,239	$ 12,062
Retired (Option 4 Concurrent Beneficiary)	1,094	$ 3,719,602	$ 3,400
Disabilities/1122	22	$ 291,495	$ 13,250
Disabilities/3 and 3-A	594	$ 9,037,498	$ 15,215
Beneficiaries	1,475	$ 11,913,284	$ 8,077
Pre-Retirement Death Benefits	627	$ 2,797,047	$ 4,461
Terminated Vested	501	$ 3,849,811	$ 7,684

NON-ACTIVE MEMBER DATA
SPECIAL GROUPS

	Count	Total Annual Benefit	Average Annual Benefit
Retired (Options 0-4)	615	$ 13,241,922	$ 21,532
Retired (Option 4 Concurrent Beneficiary)	119	$ 466,269	$ 3,918
Disabilities/1122	3	$ 39,782	$ 13,261
Disabilities/3 and 3-A	4	$ 63,174	$ 15,794
Beneficiaries	91	$ 976,617	$ 10,732
Terminated Vested	0	$ 0	$ N/A

APPENDIX B
SUMMARY OF PLAN PROVISIONS
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, and marine resources officers employed before 9/1/84 - 8.65% of earnable compensation for 20 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.

- 1998 Special Plan employees employed after 8/31/84 which include state police, state prison employees, airplane pilots, forest rangers, inland fisheries and wildlife officers, marine resources officers, liquor inspectors and defense, veterans and emergency management firefighters employed at Bangor International Airport: - 8.65% of earnable compensation for 25 years; 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 are not included in calculating average final compensation unless the employer pays the cost of including such compensation.

Earnable compensation does not include sick and vacation pay for those members who had less than 10 years of service at July 1, 1993. For members for whom sick and vacation pay is includible in earnable compensation, these payments are included in applying the caps described in the preceding paragraph.

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 having at least 10 years of creditable service on July 1, 1993 : 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 having at least 10 years of creditable service on July 1, 1993: 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 by approximately 2 ¼% for each year 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 for retirement 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, and marine resources officers employed before 9/1/84:

Eligibility: 20 years of creditable service in named positions.

Benefit: ° 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.

Forest rangers employed before 9/1/84:

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

Benefit: ½ 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)½ 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: ½ 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: ° of average final compensation plus 2% for each year of service earned after qualification for retirement.

Form of payment: life annuity.

1998 Special Plan employees employed after 8/31/84 which includes state police, state prison employees, airplane pilots, forest rangers, inland fisheries and wildlife officers, marine resources officers, liquor inspectors and defense, veterans and emergency management firefighters employed at the Bangor International Airport:

Eligibility: 10 years of creditable service under the 1998 Special Plan in one or a combination of the covered capacities after June 30, 1998, and the attainment of age 55 – OR – 25 years of creditable service in one or a combination of the covered capacities.

Benefit: for service prior to July 1, 1998, 1/50 of average final compensation multiplied by years of service reduced for retirement before age 60 or 62, except state police and certain prison employee benefits are reduced for retirement before age 55.

-AND-

for service starting on July 1, 1998, 1/50 of average final compensation multiplied by years of service reduced for retirement before age 55.

Form of payment: life annuity.

6. **Disability Retirement Benefits other than No Age 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 or two years, depending on disability plan, 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.

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

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 or two years, depending on disability plan, 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. 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 members 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 without retirement or death.

Benefit: member's accumulated contributions with interest.

11. Cost-of-Living Adjustments

All service and disability retirement and survivor benefits 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 twelve months. The maximum annual increase or decrease is 4%. Average final compensation used in determining disability benefits for disabled members is similarly adjusted for purposes of determining the recipient's service retirement benefit if and when the recipient moves to service retirement.

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

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 who retires with a benefit 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

	State Employees	Teachers
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 (% at Selected Ages)

Age	State Employees & Teachers
20	9.5
25	8.3
30	7.2
35	6.7
40	6.2
45	5.7
50	5.5
55	5.5
60	5.5
65	5.5

The above rates include a 5°% 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.

4. Rates of Termination at Select and Ultimate Service (% at Selected ages)*

Age	State Employees Service 0-1	1-2	2+	Teachers Service 0-1	1-2	2+
20	25.0	17.5	18.8	33.0	24.0	18.8
25	25.0	17.5	12.5	27.5	24.0	12.5
30	25.0	17.5	10.0	27.5	24.0	10.4
35	25.0	17.5	7.5	27.5	24.0	8.3
40	25.0	17.5	5.0	27.5	24.0	6.1
45	25.0	17.5	5.0	27.5	24.0	4.0
50	25.0	17.5	5.0	27.5	24.0	4.0
55	20.0	17.5	5.0	27.5	24.0	4.0

* *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.*

5. Rates of Active Healthy Life Mortality at Selected Ages (number of deaths per 10,000 members)*

Age	State Employees Male	State Employees Female	Teachers Male	Teachers Female
20	5	3	5	3
25	7	3	6	3
30	9	4	7	3
35	9	5	8	4
40	12	8	10	6
45	17	10	14	9
50	28	15	24	13
55	48	25	40	21
60	86	48	73	41
65	156	93	133	79
70	255	148	217	125

* *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 Inactive Healthy Life Mortality at Selected Ages (number of deaths per 10,000 members)

	State Employees		Teachers	
Age	Male	Female	Male	Female
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

7. Rates of Mortality for Future Anticipated Disableds at Selected Ages (number of deaths per 10,000 members)

Age	Male	Female	Male	Female
25	92	72	92	72
30	112	89	112	89
35	134	109	134	109
40	160	126	160	126
45	193	144	193	144
50	236	165	236	165
55	295	191	295	191
60	362	226	362	226
65	446	272	446	272
70	576	331	576	331

8. Rates of Inactive Disabled Life Mortality at Selected Ages (number of deaths per 10,000 members)

Age	Male	Female	Male	Female
25	391	528	391	528
30	315	467	315	467
35	321	326	321	326
40	332	215	332	215
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

ACTUARIAL ASSUMPTIONS AND METHODS
(continued)

	Age	State Employees*	Teachers
9. Rates of Retirement at Selected Ages (number retiring per 1,000 members)			
	45	35	25
	50	57	25
	55	150	113
	59	180	183
	60	350	350
	61	350	350
	62	350	350
	63	350	350
	64	350	350
	65	350	350
	70	1000	1000

* *Members of Special Groups are assumed to retire when first eligible for unreduced benefits.*

	Age	State Employees	Teachers
10. Rates of Disability at Selected Ages (members becoming disabled per 10,000 members)**			
	25	6.8	4.6
	30	7.6	5.0
	35	10.2	5.0
	40	19.0	6.8
	45	27.9	15.5
	50	42.7	24.3
	55	81.0	33.0
	60	119.3	41.8

** *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.*

11. Family Composition Assumptions — 80% of active members are married and have two children born when the member is 24 and 28; children are dependent until age 18; female spouse is three years younger than male spouse; member has no dependent parents; unmarried members have beneficiaries entitled to benefits worth 80% as much as those of married members' beneficiaries.

12. 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 increase by 1.0% for state employees and 1.3% for teachers.

Actuarial Methods

1. Funding Method

The 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 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 the member's 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 25 year period from July 1, 1998. The payments are determined so that they will be a level percentage of pay, assuming total pay increases 5.5% per year.

The funding components are described in greater detail in Part IV.

2. Asset Valuation Method

For purposes of this June 30, 1998 actuarial valuation, assets are valued at an "actuarial value" as described in Part II.

1998 ACTUARIAL VALUATION: LEGISLATIVE RETIREMENT SYSTEM

MAINE STATE RETIREMENT SYSTEM

INTRODUCTION

This report presents the results, as of June 30, 1998, of the actuarial valuation of the Maine Legislative Retirement System. Schedule A, following this introduction, contains the cost results, assets, liabilities, and accounting disclosure information. Schedule B presents a summary of plan provisions and Schedule C presents a description of actuarial assumptions and methods used in determining the costs, including a description of the funding method.

Actuarial assumptions for the valuation were changed this year by the System's Board of Trustees on recommendation by the actuary, based on the Experience Study for the State Employees and Teachers Plan performed earlier this year. The valuation assumption for salary increases was reduced from 6.0% to 5.5% per year as a result of across-the-board changes in economic assumptions for all State-sponsored plans and mortality for active employees was improved by the replacement of the current table with Table UP94.

SCHEDULE A
PARTICIPANT DATA

1. Number of Active Employees		165
2. Active Payroll	$	1,712,719
3. Number of Retired Members[1]		57
4. Annual Retiree Benefits	$	69,329
5. Number of Vested and Inactive Members[2]		77

[1]*Includes five concurrent beneficiaries and two survivors.*
[2]*Includes 73 terminated legislators due a refund of contributions.*

COST RESULTS

1. Employer Normal Cost[3]	0.00%
2. Unfunded Actuarial Liability	0.00%
3. Total Cost	0.00%

[3]*Employer Normal Cost includes Retirement Benefits, Disability, and Survivor Benefit costs.*

ACCOUNTING INFORMATION

1. GASB Disclosure		
A. Actuarial Accrued Liability (Aggregate method, technically there is no AAL. This exhibit shows AAL = AVA)		
1. Retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	$	977,464
2. Current employees		
- Accumulated employee contributions including allocated investment earnings	$	710,905
- Employer-financed vested	$	0
- Employer-financed non-vested	$	2,777,649
Total Actuarial Accrued Liability	$	4,466,018
B. Actuarial Value of Assets	$	4,466,018
C. Unfunded Actuarial Accrued Liability	$	0
2. Other Accounting Information		
A. Market Value of Assets	$	5,081,486
B. Unfunded Accrued Liability, (not less than $0)	$	0
C. Amortization Period		N/A

SCHEDULE B
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.

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.

SUMMARY OF PLAN PROVISIONS
(continued)

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 7 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.

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 average final compensation shared between dependent children and surviving spouse (if any). Benefits are reduced by amounts payable under Workers' Compensation.

SUMMARY OF PLAN PROVISIONS
(continued)

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.

SCHEDULE C
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: 5.5%
3. Annual Cost-of-living Increase: 4.0%
4. 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.

5. Probabilities of employment termination:

			Death	
Age	due to: Disability	Termination	Male	Female
25	.0006	.07	.0007	.0003
30	.0006	.06	.0009	.0004
35	.0007	.05	.0009	.0005
40	.0011	.04	.0012	.0008
45	.0022	.03	.0017	.0010
50	.0042	.02	.0028	.0015
55	.0072	.01	.0048	.0025

6. Rates of Healthy Life Mortality at Selected Ages:

	Currently Active Employees		Currently Retired Employees	
Age	Male	Female	Male	Female
25	.0007	.0003	.0006	.0003
30	.0009	.0004	.0008	.0005
35	.0009	.0005	.0011	.0007
40	.0012	.0008	.0016	.0009
45	.0017	.0010	.0029	.0014
50	.0028	.0015	.0053	.0022
55	.0048	.0025	.0085	.0033

SUMMARY OF ACTUARIAL ASSUMPTIONS

7. Rates of Disabled Life Mortality at Selected Ages:

	Currently Active Employees		Currently Retired Employees	
Age	Male	Female	Male	Female
25	.0092	.0072	.0391	.0528
30	.0112	.0089	.0315	.0467
35	.0134	.0109	.0321	.0326
40	.0160	.0126	.0332	.0215
45	.0193	.0144	.0349	.0191
50	.0236	.0165	.0376	.0207
55	.0295	.0191	.0420	.0240

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.

1998 ACTUARIAL VALUATION: JUDICIAL RETIREMENT SYSTEM

MAINE STATE RETIREMENT SYSTEM

INTRODUCTION

This report presents the results, as of June 30, 1998, of the actuarial valuation of the Maine Judicial Retirement System. Schedule A, following this introduction, contains the cost results, assets, liabilities, and accounting disclosure information. Schedule B presents a summary of plan provisions and Schedule C presents a description of actuarial assumptions and methods used in determining costs, including a description of the funding method.

Legislative changes effective July 1, 1998 created prospective only benefit changes in the Plan. In addition, actuarial assumptions for the valuation were changed this year by the System's Board of Trustees on recommendation by the actuary, based on the Experience Study for the State Employees and Teachers Plan performed earlier this year. A summary of these changes are outlined below.

Benefit Changes:

- benefit accruals for service on or after July 1, 1998 will be at 3% per year (accrual for service before July 1, 1998, remains at 2% per year) and the 60% maximum benefit limitation is increased to 70% ofaverage final compensation for service on or after July 1, 1998.

Actuarial Assumption Changes

- reduce inflation/general salary increase growth from 6.0% to 5.5%

- replace active member mortality table with Table UP94

SCHEDULE A
PARTICIPANT DATA

1. Number of Active Employees		52
2. Active Payroll	$	4,431,665
3. Number of Retired Members and Beneficiaries[1]		31
4. Annual Retiree and Beneficiary Benefits	$	1,501,302
5. Number of Vested and Inactive Members		2

[1] *Includes three concurrent beneficiaries.*

COST RESULTS

1. Employer Normal Cost[2]	20.00%
2. Unfunded Actuarial Liability	3.88%
3. Total Cost	23.88%

[2] *Employer Normal Cost includes Retirement Benefits, Disability, and Survivor Benefit costs.*

ACCOUNTING INFORMATION

1. GASB Disclosure		
A. Actuarial Accrued Liability		
1. Retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	$	15,899,792
2. Current employees		
- Accumulated employee contributions including allocated investment earnings	$	3,684,297
- Employer-financed vested	$	9,261,789
- Employer-financed non-vested	$	316,235
Total Actuarial Accrued Liability	$	29,162,113
B. Actuarial Value of Assets	$	26,980,527
C. Unfunded Actuarial Accrued Liability	$	2,181,586
2. Other Accounting Information		
A. Market Value of Assets	$	30,698,749
B. Unfunded Accrued Liability, (not less than $0)	$	0
C. Amortization Period		19

SCHEDULE B
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) For service after November 30, 1984 and before July 1, 1998, 2% of average final compensation multiplied by years of service; for service on or after July 1, 1998, 3% of average final compensation multiplied by years of service, and (2) for judicial service prior to December 1, 1984, 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: For service before July 1, 1998, 60% of average final compensation; for service on or after July 1, 1998, 70% of average final compensation.

Minimum benefit: for a judge in service and age 50 or older on December 1, 1984, 75% of salary on 6/30/84 for the position held at retirement, increased by 6% per year from 6/30/84 to 6/30/89 or retirement date if earlier, and increased beyond 6/30/89 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 7 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.

SCHEDULE C
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: 5.5%
3. Annual Cost-of-living Increase: 4.0%
4. 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.

5. Probabilities of employment termination:

			Death	
Age due to:	Disability	Termination	Male	Female
25	.0006	.07	.0007	.0003
30	.0006	.06	.0009	.0004
35	.0007	.05	.0009	.0005
40	.0011	.04	.0012	.0008
45	.0022	.03	.0017	.0010
50	.0042	.02	.0028	.0015
55	.0072	.01	.0048	.0025

6. Rate of Healthy Life Mortality at Selected Ages:

	Currently Active Employees		Currently Retired Employees	
Age	Male	Female	Male	Female
25	.0007	.0003	.0006	.0003
30	.0009	.0004	.0008	.0005
35	.0009	.0005	.0011	.0007
40	.0012	.0008	.0016	.0009
45	.0017	.0010	.0029	.0014
50	.0028	.0015	.0053	.0022
55	.0048	.0025	.0085	.0033

SUMMARY OF ACTUARIAL ASSUMPTIONS

7. Rates of Disabled Life Mortality at Selected Ages:

	Currently Active Employees		Currently Retired Employees	
Age	Male	Female	Male	Female
25	.0092	.0072	.0391	.0528
30	.0112	.0089	.0315	.0467
35	.0134	.0109	.0321	.0326
40	.0160	.0126	.0332	.0215
45	.0193	.0144	.0349	.0191
50	.0236	.0165	.0376	.0207
55	.0295	.0191	.0420	.0240

FUNDING METHOD

1. Entry Age Normal

2. Amortization Period: 19 years

ASSET VALUATION METHOD

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

1998 ACTUARIAL VALUATION: CONSOLIDATED PLAN FOR PARTICIPATING LOCAL DISTRICTS

MAINE STATE RETIREMENT SYSTEM

SECTION I
EXECUTIVE SUMMARY

Overview

As of June 30, 1998, there were 223 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, 1998, 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, 1998, results for the Regular Plans and Special Plans that comprise the Consolidated Plan.

This year's valuation includes actuarial assumption changes based on the Experience Study performed earlier this year. While this study did not review experience specific to the Consolidated Plan there were recommended changes to two globally used assumptions which affected all other plans valued this year. These changes are as follows:

- reduce inflation/general salary increase growth from 6.0% to 5.5%

- improve active mortality to use the Uninsured Pensioners 1994 rates.

Due to the change in these assumptions, the normal cost rates were also adjusted this year. (See Section IV for a breakdown by plan of these revised normal cost rates).

For the second year in a row, the Pooled Unfunded Actuarial Liability (PUAL) is negative as of this valuation date due to investment returns greater than the assumed 8.0% and employee salary increases and post-retirement COLAs at less than the actuarially assumed rates. 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 -5.3% for the Regular Plans and -6.8% 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 approximately $43 million and spread those over a payroll base of $169 million, while the Special Plans experienced asset gains of approximately $33 million and spread them over a payroll base of $55 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 223 PLDs that had entered the Plan through July 1, 1997, 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, 1998, the Plan had assets, when measured on a market value basis, of $1,214 million as compared to $1,038 million as of June 30, 1997.

On an actuarial basis, using a method which smooths market fluctuations, the assets were valued at $1,067 million on June 30, 1998, as compared to $925 million as of June 30, 1997. The components of this change, in millions, are:

EXECUTIVE SUMMARY
(continued)

Actuarial				Market	
+	$ 41	employer and member contributions	+	$ 41
-	49	payment of benefits and expenses,	-	49
+	74	investment return per 8.0% assumption,	+	83
+	76	actuarial investment gain (actuarial rate of return @ 16.0%)		
		market investment gain (market rate of return @ 17.7%)	+	101
=	$ 142	total increase in assets	=	$ 176

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

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 when 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, 1998, the total actuarial liability for the Plan was $1,148 million, as compared to $1,069 million as of June 30, 1997. Comparing this to the actuarial value of assets of $1,067 million produces an unfunded actuarial liability of $81 million. $189 million has been allocated to PLDs as their Initial Unfunded Unpooled Actuarial Liabilities (IUUAL) (described in detail in Section III), which yields a pooled surplus of $108 million. As of June 30, 1997 the pooled surplus was $41 million. The components of the increase in the surplus, in millions, are as follows:

Pooled Unfunded Actuarial Liability, June 30, 1997	($ 41)
• increase expected	2
• decrease due to asset gain (investment return)	(76)
• effect of assumption changes	20
• other (gains)/losses (see below)	(13)
Pooled Unfunded Actuarial Liability, June 30, 1998	($ 108)

EXECUTIVE SUMMARY
(continued)

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, 1998, there is no Unfunded Accrued Benefit Liability.

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 employer contribution rates, calculated as of June 30, 1998. In addition, Section IV discusses the application of the contribution rates for fiscal year budget purposes.

Employees also contribute to the plans; rates are set out in Appendix C.

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 IUUALs.

The normal cost varies by plan and is shown in detail in Table IV-1.

The Pooled UAL rate for all employees changed from -2.2% of payroll as of June 30, 1997, to -5.7% of payroll as of June 30, 1998. The primary components of this change are shown below.

Pooled Unfunded Actuarial Liability Rate as of June 30, 1997	- 2.2%
• investment gain (due to higher than expected investment returns)	- 4.0
• change in assumptions	1.0
• other (gains)/losses	- 0.5
Pooled Unfunded Actuarial Liability Rate as of June 30, 1998	- 5.7%

The PUAL rate as calculated above will be reflected in the FY 2000 contribution rates. The PUAL rate is allocated to the individual plans and is used to offset the individual normal costs to develop the ultimate rate for each plan. These rates are summarized in Table IV-1.

Members and Benefit Recipients

The total active membership of the Consolidated Plan decreased from 8,768 as of June 30, 1997 to 8,689 as of June 30, 1998. With respect to members who are no longer active, the number of benefit recipients increased from 5,818 as of June 30, 1997 to 5,933 on June 30, 1998. The number of vested inactive members decreased from 284 on June 30, 1997 to 219 on June 30, 1998.

The total annual payroll of active members in all plans increased from $218 million as of June 30, 1997 to $224 million as of June 30, 1998. Appendix B of this report presents more detail regarding members and benefit recipients.

SUMMARY OF PRINCIPAL RESULTS
TOTAL

	June 30, 1998	June 30, 1997
1. Participant Data		
Number of:		
Active Members	8,689	8,768
Retired Members, Beneficiaries, Disabled Members and Survivors	5,933	5,818
Vested Inactive Members	219	284
Total Members and Benefit Recipients	14,841	14,870
Annual Salaries of Active Members	$ 223,525,533	$ 218,447,415
Annual Benefits to Recipients	$ 48,558,212	$ 45,722,411
2. Assets and Liabilities		
Funding Liability		
Actuarial Liability	$ 1,147,652,930	$ 1,068,530,453
Actuarial Value of Assets	1,066,810,947	924,525,993
Unfunded Actuarial Liability	$ 80,841,983	$ 144,004,460
Unpooled Portion (IUUAL)	189,197,598	185,302,879
Pooled Portion	($ 108,355,615)	($ 41,298,419)
FASB Accounting Liability		
Accrued Benefit Liability	$ 949,422,499	$ 877,950,120
Market Value of Assets	1,213,829,587	1,037,988,379
Unfunded Accrued Benefit Liability	$ 0	$ 0
Accrued Benefit Funding Ratio	128%	118%

SUMMARY OF PRINCIPAL RESULTS
REGULAR PLANS A, A-1, & B

1. Participant Data	June 30, 1998	June 30, 1997
Number of:		
Active Members	7,163	7,261
Retired Members, Beneficiaries, Disabled Members and Survivors	4,423	4,350
Vested Inactive Members	211	275
Total Members and Benefit Recipients	11,797	11,886
Annual Salaries of Active Members	$ 168,835,178	$ 166,006,136
Annual Benefits to Recipients	$ 28,539,254	$ 26,935,786

2. Assets and Liabilities

Funding Liability

Actuarial Liability	$ 670,244,710	$ 630,458,329
Actuarial Value of Assets	$ 657,739,451	$ 570,278,721
Unfunded Actuarial Liability	$ 12,505,259	$ 60,179,608
Unpooled Portion (IUUAL)	89,152,234	88,094,825
Pooled Portion	($ 76,646,975)	($ 27,915,217)

FASB Accounting Liability

Accrued Benefit Liability	$ 522,787,262	$ 483,006,537
Market Value of Assets	748,383,402	640,266,136
Unfunded Accrued Benefit Liability	$ 0	$ 0
Accrued Benefit Funding Ratio	143%	133%

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

1. Participant Data	June 30, 1998	June 30, 1997
Number of:		
Active Members	1,526	1,507
Retired Members, Beneficiaries, Disabled Members and Survivors	1,510	1,468
Vested Inactive Members	8	9
Total Members and Benefit Recipients	3,044	2,984
Annual Salaries of Active Members	$ 54,690,355	$ 52,441,279
Annual Benefits to Recipients	$ 20,018,958	$ 18,786,625

2. Assets and Liabilities

Funding Liability	June 30, 1998	June 30, 1997
Actuarial Liability	$ 477,408,220	$ 438,072,124
Actuarial Value of Assets	409,071,496	354,247,272
Unfunded Actuarial Liability	68,336,724	$ 83,824,852
Unpooled Portion (IUUAL)	100,045,364	97,208,054
Pooled Portion	($ 31,708,640)	($ 13,383,202)

FASB Accounting Liability	June 30, 1998	June 30, 1997
Accrued Benefit Liability	$ 426,635,237	$ 394,943,583
Market Value of Assets	465,446,185	397,722,243
Unfunded Accrued Benefit Liability	$ 0	$ 0
Accrued Benefit Funding Ratio	109%	101%

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 yield 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) [=$1,484,875,427].

(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 [=$4,626,972,449].

(c) Return = (a) (Increase in assets) divided by (b) (Adjusted actuarial value of assets) [=32.09%].

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%). [32.09% - 8.00% = 24.09%]

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 X 24.09%) = 16.03%]

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	$ 748,383,402	$ 465,446,185	$ 1,213,829,587
Actuarial Value	$ 657,739,451	$ 409,071,496	$ 1,066,810,947

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, 1998.

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.

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

	Regular Plans	Special Plans	Total
1. Present Value of Benefits	$ 891,902,208	$ 545,760,736	$1,437,662,944
2. Present Value of Future Contributions			
a. Employer Normal Cost	125,190,939	42,255,967	167,446,906
b. Employee Contributions	96,466,559	26,096,549	122,563,108
3. Actuarial Liability (1) - (2)	$ 670,244,710	$ 477,408,220	$1,147,652,930
4. Actuarial Value of Assets			
a. Total Invested Assets	$ 693,468,947	$ 427,231,740	$1,120,700,687
b. IUUAL Surpluses in Individual PLD Accts.	35,729,496	18,160,244	53,889,740
c. Valuation Assets (a) - (b)	$ 657,739,451	$ 409,071,496	$1,066,810,947
5. Unfunded Actuarial Liability			
a. Total Unfunded Liability (3) - (4c)	$ 12,505,259	$ 68,336,724	$ 80,841,983
b. Individual PLD Unpooled Liability (IUUAL)	89,152,234	100,045,364	189,197,598
c. Pooled Unfunded Actuarial Liability (a) - (b)	($ 76,646,975)	($ 31,708,640)	($ 108,355,615)
6. Amortization over 15 Years	($ 8,954,631)	($ 3,704,506)	($ 12,659,137)
7. Payroll	$ 168,835,178	$ 54,690,355	$ 223,525,533
8. Pooled Unfunded Liability Contribution Rate (6) ÷ (7)	-5.3%	-6.8%	-5.7%

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

	Regular Plans	Special Plans	Total
1. Present Value of Accrued Benefits			
a. Vested Inactive Members	$ 7,870,898	$ 113,557	$ 7,984,455
b. Retired Members, Beneficiaries Disabled Members and Survivors	277,445,620	246,318,445	523,764,065
c. Active Members	237,470,744	180,203,235	417,673,979
d. Total	$ 522,787,262	$ 426,635,237	$ 949,422,499
2. Invested Assets (Market Value)	748,383,402	465,446,185	1,213,829,587
3. Unfunded Present Value of Accrued Benefits (1) - (2)	$ 0	$ 0	$ 0
4. Accrued Benefit Funding Ratio (2)/(1)	143%	109%	128%

SECTION IV
CONTRIBUTIONS

General Comments

Under established procedures, employer contribution rates based on this June 30, 1998, actuarial valuation are used to determine Fiscal Year 2000 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.

Employees are required to contribute to the plans; rates are set out at Appendix C-1.

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 2000 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 2000

		Pooled Unfunded Actuarial Liability		
	Normal Cost**	Regular Plans	Special Plans	Total Rates
Plans with COLA				
Regular Employees Plan A	9.0%	-5.7%		3.3%
Regular Employees Plan B	5.5%	-3.5%		2.0%
Special Plan 1	17.5%		-9.8%	7.7%
Special Plan 2	10.8%		-6.1%	4.7%
Special Plan 3	14.3%		-8.0%	6.3%
Special Plan 4	9.3%		-5.2%	4.1%
Plans with No COLA				
Regular Employees Plan A-1	4.8%	-3.0%		1.8%
Special Plan 1-A	9.8%		-5.5%	4.3%
Special Plan 2-A	5.8%		-3.3%	2.5%
Special Plan 3-A	7.8%		-4.4%	3.4%
Special Plan 4-A	5.0%		-2.8%	2.2%

* *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]	1	2	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[2]			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 Fire and Police	292		1	2	FO	7/1/97
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
Carrabasett 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
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

PARTICIPATING LOCAL DISTRICTS PLAN ELECTIONS
(continued)

PLD Name	PLD #	Regular Plan	Special Plan	Special Plan	COLA	Entry Date
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 Water District	255	A-1			No	7/1/96
Kittery Water District	12	A			Yes	7/1/94
Lew/Aub. Water Pollution Control 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 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
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

PARTICIPATING LOCAL DISTRICTS PLAN ELECTIONS
(continued)

PLD Name	PLD #	Regular Plan	Special Plan	Special Plan	COLA	Entry Date
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[3]			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
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[4]			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

PARTICIPATING LOCAL DISTRICTS PLAN ELECTIONS
(continued)

PLD Name	PLD #	Regular Plan	Special Plan	Special Plan	COLA	Entry Date
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 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
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

PARTICIPATING LOCAL DISTRICTS PLAN ELECTIONS
(continued)

PLD Name	PLD #	Regular Plan	Special Plan	Special Plan	COLA	Entry Date
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

Notes:

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

1 Employees hired prior to July 1, 1997 and who are members of the System are covered under Special Plan #1. Corrections Officers and Law Enforcement Officers hired on or after July 1, 1997, will be covered under Special Plan #2. All other employees hired on or after July 1, 1997, will be covered under Regular Plan A.

2 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.

3 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.

4 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 PROFILES
ACTIVE MEMBER DATA AS OF JUNE 30, 1998

Regular Plans Members

Count	7,163
Average Current Age	44.7
Average Service	8.3
Average Valuation Pay	$ 23,570

Special Plans Members

Count	1,526
Average Current Age	39.5
Average Service	11.8
Average Valuation Pay	$ 35,839

All Plans Members

Count	8,689
Average Current Age	43.8
Average Service	9.0
Average Valuation Pay	$ 25,725

BENEFIT RECIPIENT AND INACTIVE VESTED MEMBER DATA AS OF JUNE 30, 1998

REGULAR PLANS

Retired Members, Beneficiaries, Disabled Members and Survivors

Count	4,423
Total Annual Benefit	$ 28,539,254
Average Annual Benefit	$ 6,452

Inactive Vested

Count	211
Total Annual Deferred Benefit (Payable at Normal Retirement Age)	$ 1,167,261
Average Annual Deferred Benefit (Payable at Normal Retirement Age)	$ 5,532

SPECIAL PLANS

Retired Members, Beneficiaries, Disabled Members and Survivors

Count	1,510
Total Annual Benefit	$ 20,018,958
Average Annual Benefit	$ 13,258

Inactive Vested

Count	8
Total Annual Deferred Benefit (Payable at Normal Retirement Age)	$ 28,097
Average Annual Deferred Benefit (Payable at Normal Retirement Age)	$ 3,512

BENEFIT RECIPIENT AND INACTIVE VESTED MEMBER DATA
AS OF JUNE 30, 1998
(continued)

ALL PLANS

Retired Members, Beneficiaries, Disabled Members and Survivors

Count		5,933
Total Annual Benefit	$	48,558,212
Average Annual Benefit	$	8,184

Inactive Vested

Count		219
Total Annual Deferred Benefit (Payable at Normal Retirement Age)	$	1,195,358
Avg. Annual Deferred Benefit (Payable at Normal Retirement Age)	$	5,458

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 66-2/3% 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 5.5%

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 Active Healthy Life Mortality at Selected Ages (number of deaths per 10,000 members)**

Age	Male	Female
25	7	3
30	9	4
35	9	5
40	12	8
45	17	10
50	28	15
55	48	25

6. Rates of Inactive Healthy Life Mortality at Selected Ages (number of deaths per 10,000 members)

	Regular & Special Plan 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

* *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 Mortality for Future Anticipated Disableds at Selected Ages (number of deaths per 10,000 members)

Age	Male	Female
25	92	72
30	112	89
35	134	109
40	160	126
45	193	144
50	236	165
55	295	191
60	362	226
65	446	272
70	576	331

8. Rates of Disabled Life Mortality at Selected Ages (number of deaths per 10,000 members)

Age	Male	Female
25	391	528
30	315	467
35	321	326
40	332	215
45	349	191
50	376	207
55	420	240
60	488	288
65	595	366
70	763	487

9. 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	

* *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.*

10. Rates of Disability at Selected Ages (number becoming disabled per 10,000 members)**

Age	Regular Plan	Special Plan
25	6	13
30	6	13
35	7	14
40	11	18
45	22	29
50	42	49
55	72	79

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

ACTUARIAL ASSUMPTIONS AND METHODS
(continued)

11. Family Composition Assumptions	80% of active members are married and have two children born when the member is 24 and 28; children are dependent until age 18; spouses are same age; member has no dependent parents; unmarried members have beneficiaries entitled to benefits worth 80% as much as those of married members' beneficiaries.

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.

2. Asset Valuation Method

For purposes of the June 30, 1998, actuarial valuation, assets are valued at an "actuarial value" as described in Part II.