



EXECUTIVE CHAMBERS  
HONOLULU

LINDA LINGLE  
GOVERNOR

February 25, 2004

The Honorable Calvin K. Y. Say, Speaker  
and Members of the House of Representatives  
Twenty-Second State Legislature  
State Capitol, Room 431  
Honolulu, Hawaii 96813

Dear Mr. Speaker and Members of the House:

For your information and consideration, I am transmitting (2) copies of the Employees' Retirement System's Comprehensive Annual Financial Report for Fiscal Year Ended June 30, 2003. Pursuant to Act 231, Session Laws of Hawai'i 2001, I am also informing you that the report may be viewed electronically at [www.state.hi.us/budget](http://www.state.hi.us/budget).

Sincerely,

/s/ JAMES R. AIONA JR.

*fn* LINDA LINGLE

Enclosures

\_\_\_\_\_  
ACTING GOVERNOR



EXECUTIVE CHAMBERS  
HONOLULU

LINDA LINGLE  
GOVERNOR

February 25, 2004

The Honorable Robert Bunda, President  
and Members of the Senate  
Twenty-First State Legislature  
State Capitol, Room 003  
Honolulu, Hawaii 96813

Dear Mr. President and Members of the Senate:

For your information and consideration, I am transmitting (2) copies of the Employees' Retirement System's Comprehensive Annual Financial Report for Fiscal Year Ended June 30, 2003. Pursuant to Act 231, Session Laws of Hawai'i 2001, I am also informing you that the report may be viewed electronically at [www.state.hi.us/budget](http://www.state.hi.us/budget).

Sincerely,

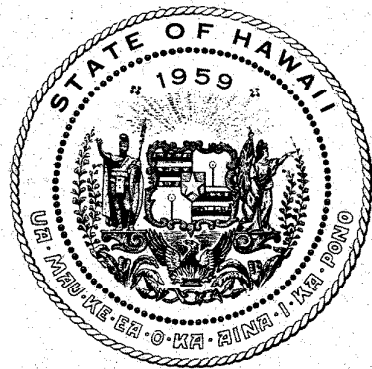
/s/ JAMES R. AIONA JR.

*for* LINDA LINGLE

Enclosures

\_\_\_\_\_  
ACTING GOVERNOR

**EMPLOYEES'  
RETIREMENT SYSTEM  
OF THE  
STATE OF HAWAII**



**COMPREHENSIVE  
ANNUAL  
FINANCIAL REPORT  
FOR THE FISCAL YEAR ENDED JUNE 30, 2003**

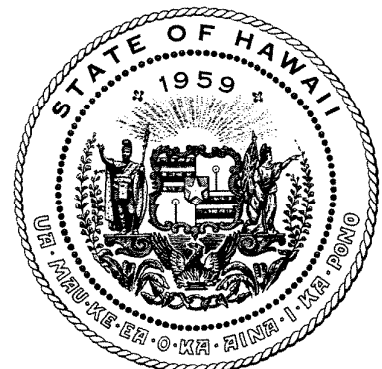
**EMPLOYEES'  
RETIREMENT SYSTEM  
OF THE  
STATE OF HAWAII**

**COMPREHENSIVE  
ANNUAL  
FINANCIAL REPORT**

FOR THE FISCAL YEAR ENDED JUNE 30, 2003

Prepared by the Staff of the:  
Employees' Retirement System of the State of Hawaii  
201 Merchant Street, Suite 1400  
Honolulu, Hawaii 96813  
(808) 586-1660 • (808) 586-1650  
Facsimile (808) 586-1677 • <http://www2.state.hi.us/ers/>

DAVID Y. SHIMABUKURO, Administrator  
WESLEY K. MACHIDA, Assistant Administrator  
T. KIMO BLAISDELL, Chief Investment Officer



# Table of Contents

## INTRODUCTORY SECTION

Letter from the Chair	4
Letter of Transmittal	5
Board of Trustees	9
Organizational Structure	10
Plan Summary	11
Summary of Retirement Benefit Plan	
Provisions	12
Retirement Options	16
Legislative Highlights 2003	18

## FINANCIAL SECTION

Report of Independent Certified Public Accountants	20
Financial Statements	
Management Discussion and Analysis	22
Combining Statements of Plan Net Assets —	
All Trust and Agency Funds	28
Statements of Changes in Plan Net Assets	30
Notes to Financial Statements	31
Required Supplementary Information	
Schedules of Funding Progress	44
Schedules of Employer Contribution	44
Notes to Required Supplementary Information	45
Supplementary Information	
Changes in Net Assets Held in Trust for Pension Benefits	46
Social Security Contribution Fund —	
Statements of Changes in Assets and Liabilities	48
Administrative Expenses	49
Investment Expenses	50

## INVESTMENT SECTION

Letter from Chief Investment Officer	53
Letter from Investment Consultant	55
Report on Investment Activity by Investment Consultant	
Outline of Investment Policies	57
Investment Results	59
Asset Allocation	60
Investment Firms	61
List of Largest Assets Directly Held	62
Investments Summary	63
Schedule of Investment Fees	63
Schedule of Broker Commissions	64

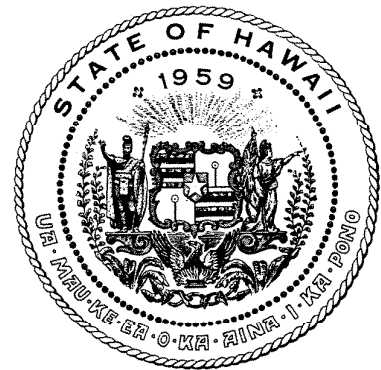
## ACTUARIAL SECTION

Letter from the Actuary	67
Actuarial Certification Statement	71
Summary of 2003 Actuarial Valuation	
Exhibit 1 – Actuarial Present Value of Future Benefits	73
Exhibit 2 – Analysis of Normal Cost	74
Exhibit 3 – Development of Actuarial Value of Assets	75
Exhibit 4 – Total Experience Gain or Loss	76
Exhibit 5 – Development of Employer Cost	77
Exhibit 6 – Calculated Employer Contributions	78
Exhibit 7 – Employer Appropriations to Pension Accumulation Fund	79
Exhibit 8 – Employer Allocation of EIR Program Costs	80
Exhibit 9 – Highlights of Last Five Annual Actuarial Valuations	81
Summary of Actuarial Assumptions and Methods	82
Summary of Plan Changes	87
Ten Year Actuarial Schedules, 1994 to 2003	
Retirement System Membership	88
Membership Data, March 31, 2003	89
Historical Summary of Active Member Data Pensioners, Average Annual Pension, and Active Member/Pensioner Comparison	90
Number of Retirants and Beneficiaries	90
Solvency Test	91
Employer Contribution Rates as Percentage of Payroll	92
Employer Appropriations to Pension Accumulation Fund, Appropriation Years 1994-95 to 2003-2004	93
State Retirement Systems' Funded Ratios	94

## STATISTICAL SECTION

Participating Employers and Active Members	96
Revenues by Source	96
Expenses by Type	97
Benefit Payments by Type	97
Average Monthly Service Pension by Year of Credited Services	98
Benefit Payments by Retirement Type and Option	99

**EMPLOYEES'  
RETIREMENT SYSTEM  
OF THE  
STATE OF HAWAII**



**INTRODUCTORY  
SECTION**

LINDA LINGLE  
GOVERNOR



**STATE OF HAWAII**  
EMPLOYEES' RETIREMENT SYSTEM

December 8, 2003

Honorable Linda Lingle  
Governor, State of Hawaii  
Honolulu, Hawaii 96813

Dear Governor Lingle:

It is my pleasure to submit the Employees' Retirement System's (ERS) Comprehensive Annual Financial Report for the fiscal year ended June 30, 2003. This report provides information on the financial status of the ERS and highlights significant changes that occurred during the past fiscal year.

After two long years of negative investment returns, the ERS' investment portfolio had a 2.97% gain for the fiscal year ended June 30, 2003. While we are encouraged by the positive results, we remain concerned about the unfunded accrued liability, which increased from \$1.8 billion in June 2002 to \$2.9 billion in June 2003 on an actuarial basis. The primary reason for the increase in the unfunded accrued liability was the negative investment returns over the prior two years.

During the past year, Board members and staff worked diligently with the actuary to complete a new hybrid contributory retirement plan study. The intent of the study is to design a new retirement plan that will improve retirement benefits for our members at no additional cost to the employers. The study was presented to the 2003 Legislature and received significant support. Enabling statutory language is now being developed for presentation to the 2004 Legislature.

As part of our on going efforts to provide quality service to our membership, the ERS released retirement benefits calculators on the ERS website so members can estimate their future benefits. In addition, the ERS launched the *Holumua* newsletter to members, retirees and beneficiaries of the ERS to provide them with retirement and retiree medical benefits information that may impact their future.

On behalf of the Board of Trustees, I would like to thank the dedicated staff, investment managers, consultants and the many others who have worked so diligently to assure the successful operation of the ERS.

Respectfully submitted,

Jackie Ferguson-Miyamoto, Chair  
Board of Trustees

LINDA LINGLE  
GOVERNOR



**STATE OF HAWAII**  
EMPLOYEES' RETIREMENT SYSTEM

December 1, 2003

Board of Trustees  
Employees' Retirement System  
State of Hawaii  
Honolulu, Hawaii 96813

Dear Board Members:

It is our privilege to submit to you the Comprehensive Annual Financial Report (CAFR) of the Employees' Retirement System of the State of Hawaii (ERS) for the fiscal year ended June 30, 2003. Responsibility for both the accuracy of the data, as well as the completeness and fairness of the presentation, rests with the management of the ERS. To the best of our knowledge and belief, the enclosed data is accurate in all material respects and is reported in a manner that fairly presents the financial position and results of the ERS' operations.

The ERS was established by the Legislature in 1925 to provide retirement, disability and survivor benefits for State and county employees including teachers, professors, police officers, firefighters, judiciary employees, judges, and elected officials.

On March 31, 2003, the ERS' total membership of 97,831 was comprised of 62,292 active members, 4,150 inactive vested members, and 31,389 retirees and beneficiaries. This represents a 1.5% growth in the total membership over the past year. The number of retirees and beneficiaries had the largest net increase while the number of active members remained fairly constant. Participating employers include the State of Hawaii, City and County of Honolulu and the Counties of Hawaii, Maui and Kauai.

This report is divided into five sections:

- (1) Introductory - includes transmittal letters, ERS' organizational structure, and a summary of benefit provisions and retirement options;
- (2) Financial - contains a report of the Independent Certified Public Accountants, management discussion and analysis regarding the operations, the financial statements of the ERS and supplementary information;
- (3) Investment - includes reports of investment activity, investment policies, investment results, and various investment schedules;
- (4) Actuarial - contains the Actuary's Letter of Certification and results of the annual actuarial valuation; and
- (5) Statistical - reporting significant data pertaining to the ERS.

City Financial Tower • 201 Merchant Street, Suite 1400 • Honolulu, Hawaii 96813-2980  
Telephone (808) 586-1660 • Fax (808) 586-1677 • <http://www2.state.hi.us/ers>



## INTERNAL CONTROLS

The management of ERS is responsible for and has implemented systems of internal accounting controls designed to provide reasonable assurances for the safeguarding of assets and the reliability of financial records. We believe that the internal accounting controls currently in place are adequate to meet the purpose for which they were intended. We also believe the financial statements, supporting schedules and statistical tables to be fairly presented in all material respects.

## ACCOUNTING SYSTEM AND REPORTS

The accrual basis of accounting is used in recording financial transactions. Expenses are recorded when the liability is incurred, and revenues are recorded in the accounting period in which they are earned and become measurable. Interest earned is accrued on a monthly basis. Accounts receivable at year-end, in addition to accrued interest receivable, reflect accrued employer charges and investment proceeds due on sales that have not yet settled. Investments are recorded at fair value. Fixed assets are recorded at cost less accumulated depreciation. Under our cash management program, receipts are immediately deposited and are recorded as undistributed deposits until such time as they are allocated to member contributions, employer receivables, employer contributions, and investment income.

## ADDITIONS TO PLAN NET ASSETS

For a retirement system to adequately fund the payment of future retirement benefits, it is necessary to accumulate sufficient assets on a regular and systematic basis. The ERS derives its revenues from the three principal sources summarized below:

	2003	2002	Increase (Decrease)	
			Amount	Per Cent
Member contributions	\$ 57,214,521	\$ 55,451,216	\$ 1,763,305	3.1 %
Employer contributions	190,586,276	167,458,900	23,127,376	13.8 %
Net investment income (loss)	146,140,751	(503,995,093)	650,135,844	129.0 %
<b>Total</b>	<b>\$ 393,941,548</b>	<b>\$ (281,084,977)</b>	<b>\$ 675,026,525</b>	<b>240.2 %</b>

Member contributions increased due to higher salaries even though the number of active members in the Contributory Plan declined by almost 6.1%. Based on the current membership structure, the number of active employees in Contributory Plan will continue to decline as most new members are required to join the Noncontributory Plan.

State and county government employer contributions for the fiscal years ended June 30, 2003 and 2002 were based on June 30, 2000 and 1999 actuarial valuation reports, respectively. Increases in employer contributions in FY 2003 are primarily the result of a 1999 law that diverted ERS actuarial investment earnings to reduce the State and county governments' contributions to the ERS in FY 2002.

## DEDUCTIONS TO PLAN NET ASSETS

The primary purpose of the ERS is to provide retirement, disability and survivor benefits to qualified members and their beneficiaries. The cost of this program includes recurring pension benefit payments,

the refund of contributions (plus interest) to new retirees and former members, and the cost to administer the ERS. Expenses for the past two fiscal years are shown below:

	2003	2002	Increase (Decrease)	
			Amount	Per Cent
Benefits	\$ 602,805,080	\$ 565,559,305	\$ 37,245,775	6.6 %
Refund of member contributions to former members	2,605,602	3,244,334	(638,732)	(19.7)%
Refund of contributions appropriated to employers	2,800	-	2,800	100.0 %
Administrative expenses	6,780,824	5,754,832	1,025,992	17.8 %
<b>Total</b>	<b>\$ 612,194,306</b>	<b>\$ 574,558,471</b>	<b>\$ 37,635,835</b>	<b>6.6 %</b>

The increase in benefit payments reflects an increase in the number of retirees, the annual post retirement benefit increase, and a one-time lump sum \$200 bonus payment to 9,232 retirees, age 70 years or older with at least 20 years of credited service as a result of Act 233/2002. Administrative expenses are detailed in the Financial Section of the CAFR.

## INVESTMENTS

The Board of Trustees has diversified the ERS' investment portfolio to secure consistent, positive long-term investment returns while preserving capital. The diversification of investments through a long-term asset allocation strategy is generally regarded as the most important decision made in the investment process. Studies have indicated that over 85% of the variability in investment returns can be attributed to the asset allocation decision. A summary of the ERS' long-term asset allocation strategy can be found in the Investment Section of this report, in addition to a report by our Chief Investment Officer and investment consultant.

Professional investment managers have been retained to execute the Board's investment strategies and have full discretion within statutory provisions, Board policies and their respective guidelines. The investment managers retained by the Board as of June 30, 2003 are listed in the Investment Section.

Although the ERS had a 2.97% investment return in FY 2003 as compared with the negative returns in FY 2001 and FY 2002, it still fell short of the statutory 8% investment yield assumption. However, with the end of the war in Iraq, the lowest interest rates in more than four decades, major tax cuts, and improving corporate profits, we are hopeful for a stock market rebound in FY 2004.

## FUNDING STATUS

The overall objective of ERS is to accumulate sufficient assets to meet current and future retirement, disability and death benefit obligations to retirees and beneficiaries. The greater the level of funding, the larger the ratio of assets accumulated to the actuarial accrued liability and the greater the level of investment potential. The funded ratio on an actuarial basis was 75.9% and 84.0% as of June 30, 2003 and June 30, 2002, respectively. When using the fair value of assets, the funded ratio on June 30, 2003 was approximately 64.3%. A detailed discussion of the funding method is provided in the Actuarial Section of this report.

**PROFESSIONAL SERVICES**

Professional consultants are appointed by the Board of Trustees to perform professional services that are essential to the effective and efficient operation of the ERS. Opinions from the certified public accounting firm, Grant Thornton LLP, and the actuary, Gabriel, Roeder, Smith & Company, are included in this report. Callan Associates Inc. is our investment consultant and their report on the ERS' investment program and performance results are also included in this report.

**MAJOR EVENTS/INITIATIVES**

During the past year, several major lawsuits, new legislative initiatives, and a 40 percent increase in the number of members filing for retirement caused a strain on our resources. The large number of "baby boomers" who will begin to retire in the near future will further aggravate the situation. In fact, almost 10,000 members or 16% of our active members are already eligible to retire. To help us meet these challenges, the Legislature recently approved additional staff positions and funding for the design and installation of a new computer system to replace our antiquated Wang system.

A new retirement benefit calculator for Noncontributory Plan members was installed on our website in June 2003. We also added more retirement information, financial reports, and forms on our website. This has reduced the number of telephone calls and letters from our members and we are now averaging over 7,000 hits on our website each month.

The 2003 Legislature requested a study on the feasibility of allowing Contributory Plan members the opportunity to join the proposed hybrid contributory plan. The Legislature also requested a study on the feasibility of establishing a Deferred Retirement Option Plan for firefighters and police officers. Both studies are to be presented to the 2004 Legislature.

**ACKNOWLEDGEMENTS**

This report represents the dedicated collaborative efforts of ERS staff and consultants to provide extensive and reliable information as a basis for making management decisions, determining compliance with legal provisions, and for determining responsible stewardship of the assets contributed by the ERS' members and their employers. The report will be provided to legislators, State and county officials, and other interested parties.

We would like to take this opportunity to express our gratitude to the Board of Trustees, the Staff, the advisors, and to the many people who work so diligently to help our members.

Sincerely,



David Shimabukuro  
Administrator

## BOARD OF TRUSTEES

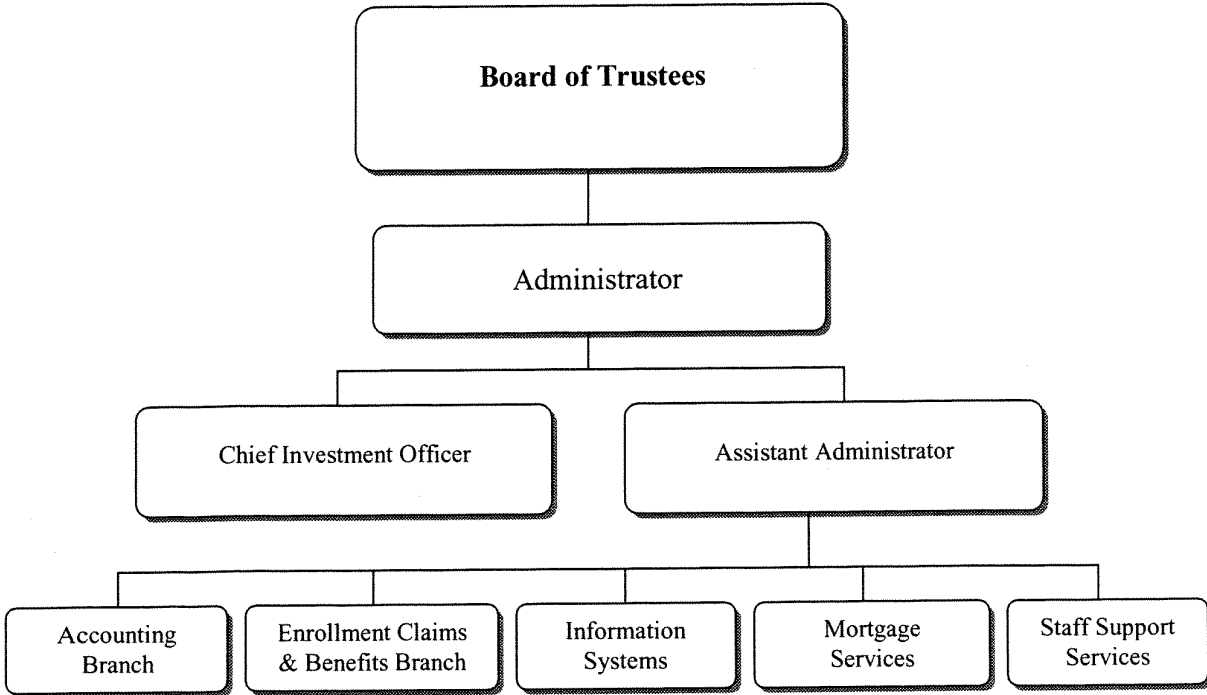
	<b>Date Current Term Began</b>	<b>Date Term Ends</b>
<b>Elected:</b>		
Ms. Pilialoa E. Lee Loy .....	January 2, 1998	January 1, 2004
Mr. Darwin J. Hamamoto .....	January 2, 2000	January 1, 2006
Ms. Jackie Ferguson-Miyamoto, Chair.....	January 2, 2002	January 1, 2008
Ms. Odetta U. Fujimori .....	January 2, 2002	January 1, 2008
<b>Appointed:</b>		
Mr. Richard (Rick) L. Humphreys, Vice Chair.....	May 10, 1999	January 1, 2005
Mr. Colbert M. Matsumoto .....	May 14, 2001	January 1, 2007
Mr. Henry F. Beerman .....	July 1, 2003	January 1, 2009
<b>Ex-Officio:</b>		
Ms. Georgina K. Kawamura .....	December 2, 2002	

---

The Board of Trustees is the governing body of the Employees' Retirement System of the State of Hawaii, with certain areas of administrative control vested in the State Department of Budget and Finance.

Four of the eight members on the Board are elected by the membership: two general employees, a teacher and a retiree. Three members are citizens of the State, one of whom is an officer of a bank authorized to do business in the State or a person of similar experience, who are not employees and are appointed by the Governor. The State Director of Finance is an ex-officio member by statute.

## ORGANIZATIONAL STRUCTURE



**Administrator**  
**Assistant Administrator**  
**Chief Investment Officer**

David Y. Shimabukuro  
 Wesley K. Machida  
 T. Kimo Blaisdell

**Actuary**  
 Gabriel, Roeder, Smith and Company

**Auditors**  
 Grant Thornton LLP

**Legal Advisor**  
 Attorney General of Hawaii

**Medical Board**  
 Dr. Patricia L. Chinn, Chair  
 Dr. Gerald J. McKenna, Member  
 Dr. Inam U.R. Rahman, Member

## PLAN SUMMARY

The Employees' Retirement System (ERS) of the State of Hawaii was established by the Legislature in 1925 to provide retirement, disability and survivor benefits for State employees, teachers, professors, county employees, police officers, firefighters, judges and elected officials.

The ERS is a qualified defined benefit pension plan under Section 401(a) of the Internal Revenue Code. As such, the ERS is exempt from federal income taxation on its investment earnings. Since January 1, 1988, member contributions have been tax deferred under Section 414(h) of the Internal Revenue Code.

Members are covered by the provisions of the Contributory or Noncontributory retirement plan. Those in the Contributory Plan are required to make contributions to the ERS and may also be covered by Social Security. Employees in the following occupational groups are required to be members of the Contributory Plan: police officers, firefighters, judges, elected officials, legislative officers, State and County department heads and deputies, attorney general investigators, and narcotics enforcement investigators. As of March 31, 2003, 9,983 active employees were enrolled in the Contributory Plan, or 16% of our active members.

Members of the Noncontributory Plan do not make contributions to the ERS and must be covered by Social Security. The Noncontributory Plan covers most employees hired from July 1, 1984, as well as employees hired before that date who elected to join the plan. As of March 31, 2003, there were 52,309 active employees in the Noncontributory Plan, which represents almost 84% of all active members. Since most new employees are required to become members of the Noncontributory Plan, these numbers will continue to increase.

A summary of the general retirement benefits for Contributory and Noncontributory members is on the following pages. The retirement options are also included.

## SUMMARY OF RETIREMENT BENEFIT PLAN PROVISIONS

	<u>Noncontributory Plan</u>	<u>Contributory Plan</u>
<b>Employee Contributions</b>	No employee contributions	7.8% of salary
<b>Normal Retirement</b>		
Eligibility	Age 62 and 10 years credited service <i>or</i> Age 55 and 30 years credited service	Age 55 and 5 years credited service
Benefit	1-1/4% of average final compensation times years of credited service (Average final compensation or AFC is an average of the highest salaries during any three years of credited service, excluding any salary paid in lieu of vacation or if ERS membership occurred prior to 1/1/71, AFC may be an average of the highest salaries during any five years of credited service including any salary paid in lieu of vacation.)	2% of average final compensation times years of credited service (Average final compensation or AFC is an average of the highest salaries during any three years of credited service, excluding any salary paid in lieu of vacation or if ERS membership occurred prior to 1/1/71, AFC may be an average of the highest salaries during any five years of credited service including any salary paid in lieu of vacation.)
<b>Early Retirement</b>		
Eligibility	Age 55 and 20 years credited service	Any age and 25 years credited service
Benefit	Maximum allowance reduced 6% per year under age 62	Maximum allowance reduced 5% per year under age 55 plus 4% per year under age 50
<b>Deferred Retirement</b>		
Requirements	10 years credited service	5 years credited service and contributions left in the ERS
Benefit	Accrued maximum allowance payable at age 65	Accrued maximum allowance payable at age 55
<b>Ordinary Disability</b>		
Eligibility	10 years credited service	10 years credited service
Benefit	Accrued maximum allowance unreduced for age	1-3/4% AFC for each full year of credited service with a minimum of 30% AFC unreduced for age

	<u>Noncontributory Plan</u>	<u>Contributory Plan</u>
<b>Service-Connected Disability (due to accident on the job)</b>		
Eligibility	Any age or credited service	Any age or credited service
Benefit	Accrued maximum allowance, but not less than 15% AFC unreduced for age	50% of AFC unreduced for age, and return of contributions for accidents after July 7, 1998.  <u>For accidents prior to July 8, 1998:</u> Totally disabled: lifetime pension of 66-2/3% AFC plus annuity, unreduced for age.  Occupationally disabled: same benefit (66-2/3% of AFC plus annuity) paid for 3 years and then pension is reduced to 33-1/3% AFC if not totally disabled, unreduced for age.
<b>Ordinary Death</b>		
Eligibility	Active employee at time of death with at least 10 years of credited service	Active employee at time of death with at least 1 year of service
Benefit	Surviving spouse and dependent children receive a benefit equal to a percentage of member's accrued maximum allowance unreduced for age or if member was eligible for retirement at the time of death, Option B (100% Joint and Survivor) benefit for surviving spouse and a percentage of member's accrued maximum allowance unreduced for age for the dependent children	Return of member's contributions and accrued interest plus a percentage of the salary earned in the 12 months preceding death or Option 2 (100% Joint and Survivor) benefit if member was eligible for retirement at the time of death and one beneficiary designated or Option 3 (50% Joint and Survivor) benefit if member was not eligible for retirement at the time of death, credited with 10 years of service, and one beneficiary designated
<b>Service-Connected Death (due to accident on the job)</b>		
Eligibility	Any age or service	Any age or service
Benefit	Surviving spouse and dependent children receive pension equal to a percentage of member's accrued maximum allowance, based on minimum accrued maximum allowance of 30% AFC	Return of member's contributions, and accrued interest plus pension of 50% AFC to surviving spouse, dependent children or dependent parents



The plan provisions summarized above apply to teachers and most State and County employees. Special provisions applicable to other groups of employees are outlined below:

- A) Police officers, firefighters, investigators of the Department of the Prosecuting Attorney and the Attorney General, and narcotic enforcement investigators, contribute 12.2% of their monthly salary to the ERS instead of 7.8%. These members may retire at age 55 with 10 years of credited service or at any age with 25 years of credited service and receive a retirement benefit of 2-1/2% of average final compensation (AFC) for each year of such service up to a maximum of 80% AFC, provided the last 5 years is credited service in any of these occupations.
- B) Judges, elected officials, and legislative officers may retire at age 55 with at least 5 years of credited service, or at any age with at least 10 years of credited service and receive a pension of 3-1/2% of AFC for each year of such service plus an annuity from their contributions allocable to the period of such service. This benefit cannot exceed 75% of the AFC. Judges hired after June 30, 1999 need 25 years of credited service in order to retire before age 55.
- C) Sewer workers in specified classifications and water safety officers may retire at any age if they are credited with 25 years of such service with the last 5 or more years in these occupations.
- D) Emergency medical technicians (EMT) may retire at any age if they are credited with 30 years of such service with the last 5 or more years in these occupations effective June 30, 2003. The years of service to qualify for early retirement is gradually being reduced through June 30, 2008 when 25 years of EMT service will qualify these members for early retirement.

### **Post Retirement Benefit**

Each retiree's original retirement allowance is increased by 2.5% on each July 1 beginning the calendar year after retirement. This cumulative benefit is not compounded and increases each year by another 2.5% of the original retirement allowance without a ceiling (i.e., 2.5% of the original retirement allowance the first year, 5% the second year, 7.5% the third year, etc.).

### **Taxation of Benefits**

All retirement benefits are subject to Federal income taxes but are exempt from Hawaii State income tax. Certain occupational (work related) disability benefits are exempt from Federal income taxes for Contributory Plan members. Arrangements to initiate voluntary withholding of Federal income tax can be made at any time. The ERS also provides retirees with a 1099-R tax form on or before January 31 of each year.

### **Additional Benefits**

Retirees, their spouses and dependent children under age 19 are eligible to receive life insurance, medical, dental, vision, and prescription drug coverage from the Employer-Union Health Benefits Trust Fund (EUTF) if they were hired before July 1, 1996, and retire with at least 10 years of credited service. If they were first hired after June 30, 1996, health benefits are available on a cost-sharing basis as long as the member retires with at least 10 years of service. A dependent of a retiree who is a full-time student at an accredited college, university or technical school and who is 19 through 23

years old is also eligible for coverage. A retiree with a hire date after July 1, 2001 will only receive coverage for him or herself.

Unused sick leave is excluded from credited service in determining health benefit coverage.

Retirees will be responsible for premiums in excess of the amount of employer contributions. Retirees and their spouses are also eligible to receive a reimbursement of the Medicare Part B medical insurance premium. More information is available on the EUTF's website at <http://www.eutf.hawaii.gov>.

### **Applying for Retirement**

A service retirement application can be filed with the ERS 150 days but no less than 30 days prior to the effective date of retirement. Once the application has been filed, cancellation prior to the effective date of retirement is permitted; however, the law requires mandatory retirement upon the third application. Members residing on the neighbor islands may obtain retirement information and application forms at the following locations:

Hawaii District Office  
101 Aupuni Street, Suite 203  
Hilo, Hawaii 96720

Kauai District Office  
3060 Eiwa Street, Room 302  
Lihue, Hawaii 96766

Maui District Office  
54 S. High Street, Room 218  
Wailuku, Hawaii 96793

### **Counseling Service**

It is the policy of the ERS to render every possible service to its members; however, as thousands of inquiries are received and answered annually, in addition to the actual processing of claims and benefits, present staff and appropriations restrict this service to those members whose immediate welfare is dependent upon the prompt settlement of benefits. Members who are not planning immediate retirement but who are interested in their benefit status, should contact the ERS for the estimate worksheets that will enable them to do their own calculations. Members who are definite about retirement should contact the ERS to request formal retirement estimates. A retirement benefit calculator for members and other retirement information are also available on the ERS' website at <http://www2.state.hi.us/ers/>.

## RETIREMENT OPTIONS

### CONTRIBUTORY PLAN

**Maximum Allowance:** The member receives a lifetime maximum allowance and at death, the difference between the value of the member's contributions at the time of retirement and the retirement allowance paid prior to death is paid to the designated beneficiary(ies) or estate.

**Option One:** The member receives a reduced lifetime allowance based on age and at death, the difference between the initial insurance reserve and the retirement allowance paid prior to death is paid to the designated beneficiary(ies) or estate.

**Option Two (100% Joint and Survivor):** The member receives a reduced lifetime allowance based on ages of both the member and the sole beneficiary and at death, the same allowance is paid to the designated beneficiary for life. Should the designated beneficiary predecease the retiree, another beneficiary cannot be named and all payments will cease at the retiree's death.

**Option Three (50% Joint and Survivor):** This plan is similar to Option Two. The member receives a reduced lifetime allowance which is higher than Option Two and is based on ages of both the member and the sole beneficiary; however, at death one-half of the allowance is paid to the designated beneficiary for life. Like Option Two, should the designated beneficiary predecease the retiree, another beneficiary cannot be named and all payments will cease at the retiree's death.

**Option Four:** This option allows the member to devise a plan that will provide a benefit according to the member's specifications. It requires certification by the Actuary and approval of the Board of Trustees. The following Option Four plans have been approved:

Combination of Options Five and Maximum Allowance. The member receives a reduced lifetime allowance and is allowed to withdraw the pre-1987 nontaxable contributions, 50% of accumulated contributions, or 75% of accumulated contributions; at death, the difference between the value of the member's contributions at the time of retirement and the retirement allowance paid prior to death is paid to the designated beneficiary(ies) or estate.

Combination of Options Five and One. The member receives a reduced lifetime allowance and is allowed to withdraw the pre-1987 nontaxable contributions, 50% of accumulated contributions, or 75% of accumulated contributions; at death, the difference between the initial insurance reserve and the retirement allowance paid prior to death is paid to the designated beneficiary(ies) or estate.

Combination of Options Five and Two. The member receives a reduced lifetime allowance based on ages of both the member and the sole beneficiary, and is allowed to withdraw the pre-1987 nontaxable contributions, 50% of accumulated contributions, or 75% of accumulated contributions; at death, the same allowance is paid to the designated beneficiary for life. As in the case of Option Two, should the designated beneficiary predecease the retiree, another beneficiary cannot be named and all payments will cease at the retiree's death.

---

Combination of Options Five and Three. The member receives a reduced lifetime allowance based on ages of both the member and the sole beneficiary, and is allowed to withdraw the pre-1987 nontaxable contributions, 50% of accumulated contributions, or 75% of accumulated contributions; at death, one-half of the allowance is paid to the designated beneficiary for life. As in the case of Option Three, should the designated beneficiary predecease the retiree, another beneficiary cannot be named and all payments will cease at the retiree's death.

**Option Five:** The member receives a reduced lifetime allowance and is allowed to withdraw all accumulated contributions; at death, the prorated amount from the last pension payment through the date of death is payable to the beneficiary(ies) or estate.

Option Four and Option Five are restricted to those members with at least ten years of credited service excluding unused sick leave credit.

Regardless of the option selected, should death occur during the first year of retirement, the designated beneficiary may elect to receive benefits as if death had occurred immediately prior to retirement in lieu of the death benefits described above.

#### **NONCONTRIBUTORY PLAN**

**Maximum Allowance:** The member receives a lifetime pension and at death, the prorated amount from the last pension payment through the date of death is payable to the beneficiary(ies) or estate.

**Option A (50% Joint and Survivor):** The member receives a reduced lifetime pension and at death, one-half of the pension is paid to the sole designated beneficiary for life. Should the designated beneficiary predecease the retiree, another beneficiary cannot be named and all payments will cease upon the retiree's death.

**Option B (100% Joint and Survivor):** The member receives a reduced lifetime pension and at death, the same pension is paid to the sole designated beneficiary for life. Like Option A, should the designated beneficiary predecease the retiree, another beneficiary cannot be named and all payments will cease upon the retiree's death.

**Option C (Ten-Year Guarantee):** The member receives a reduced lifetime pension. Should death occur within ten years of retirement, the same pension will be paid to the designated beneficiary for the balance of the ten-year period. Should the designated beneficiary predecease the retiree, another beneficiary can be named.

## LEGISLATIVE HIGHLIGHTS 2003

The following Acts, sponsored by the ERS or other agencies or parties, were passed by the 2003 Legislature and approved by the Governor:

### **Act 118, effective July 1, 2003**

- Repeals the provisions of Act 128, which changed the methodology of computing the "High 3" and "High 5" average final compensation to the highest three calendar years or highest three school contract years or the last 36 credited months. This act reinstates the old "High 3" and "High 5" average final compensation methodology retroactive to January 1, 2003.
- Specifies that the full monthly pension in the month a pensioner dies, will be payable to the pensioner instead of the beneficiary effective July 1, 2003.

### **Act 119, effective July 1, 2003**

- Allows certain positions at the University of Hawaii to be aggregated to meet ERS eligibility requirements.

### **Act 121, effective July 1, 2003**

- Requires nonresident aliens on visas who are excluded from Social Security coverage to be enrolled in the Noncontributory Plan beginning January 1, 2004. This new law streamlines enrollment processing, eliminates class code changes and the refunding of member contributions when visa status changes occur.

### **Act 134, effective July 1, 2003**

- Requires the ERS to pay retirees 4.5 per cent interest per annum for delays in finalizing their pensions. Interest begins after the sixth calendar months following the month of retirement effective January 1, 2004.
- Requires ERS to assess departments \$10 per month for delays in providing retirement information. Unused sick leave and vacation pay must be provided to the ERS within 90 days of a member's retirement date. Requests for other retirement information must be answered within 30 days to avoid the monthly assessment.

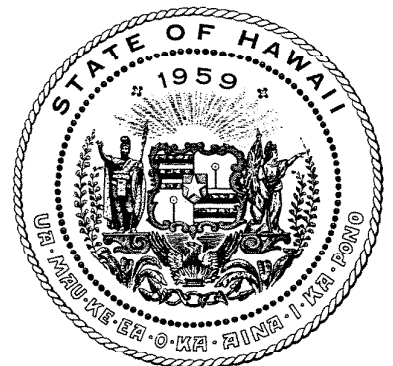
### **Act 182, effective January 1, 2004**

- Directs the ERS to provide written notification of a member's retirement date, option selection, and beneficiary designation to the member's spouse/reciprocal beneficiary.

### **Act 199, effective June 24, 2003**

- Provides an early retirement benefit with no age reduction penalty for Contributory and Noncontributory Emergency Medical Technicians (EMT).
- Graduated phase-in starting June 30, 2003 for those with 30 years of EMT service through July 1, 2008 when 25 years of EMT service will qualify these members for early retirement.

**EMPLOYEES'  
RETIREMENT SYSTEM  
OF THE  
STATE OF HAWAII**



**FINANCIAL  
SECTION**

Accountants and  
Management Consultants  
Grant Thornton LLP  
The US Member Firm of  
Grant Thornton International

Grant Thornton 

Report of Independent Certified Public Accountants

Board of Trustees  
Employees' Retirement System of the State of Hawaii

We have audited the accompanying combining statements of plan net assets of the Employees' Retirement System of the State of Hawaii (System) as of June 30, 2003 and 2002, and the related statements of changes in plan net assets for the years then ended. 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 audit.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *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. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the plan net assets of the System as of June 30, 2003 and 2002, and the changes in plan net assets for the years then ended in conformity with accounting principles generally accepted in the United States of America.

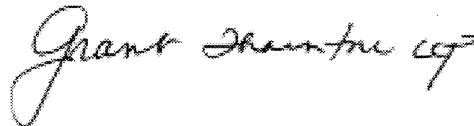
Suite 1000  
1132 Bishop Street  
Honolulu, HI 96813-2630  
Tel: 808 536-0066  
Fax: 808 523-8590

Board of Trustees  
Employees' Retirement System of the  
State of Hawaii

In accordance with *Government Auditing Standards*, we have also issued our report dated October 25, 2003 on our consideration of the System's internal control over financial reporting and our tests of its compliance with certain provisions of laws, regulations, contracts and grants. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* and should be read in conjunction with this report in considering the results of our audit.

The management's discussion and analysis on pages 22 through 27 and the supplementary information for defined benefit pension plans on pages 44 and 45 are not a required part of the basic financial statements, but is supplementary information required by the Governmental Accounting Standards Board. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the supplementary information. However, we did not audit the information and do not express an opinion on it.

Our audit was conducted for the purpose of forming an opinion on the basic financial statements of the System taken as a whole. The supplementary information included on pages 46 through 50 is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information has been subjected to the auditing procedures applied in our audit of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as whole.



Honolulu, Hawaii  
October 25, 2003



## MANAGEMENT'S DISCUSSION AND ANALYSIS

For the fiscal year ended June 30, 2003

This section presents management's discussion and analysis of the Employees' Retirement System of the State of Hawaii's (ERS and the System) financial position and performance for the fiscal year ended June 30, 2003. It is presented as a narrative overview and analysis. Please read it in conjunction with the Letter of Transmittal included in the Introductory Section, the financial statements and other information which are presented in the Financial Section of this Comprehensive Annual Financial Report.

ERS is responsible for administering a defined benefit pension plan for State, local government and public education employees in the State of Hawaii. The System also oversees short-term investment of the federal social security employer contributions for the State of Hawaii in the Social Security Contribution Fund.

Financial Highlights

- ERS retirement plan net assets decreased by a little over \$218.3 million to \$7.7 billion at June 30, 2003 from \$7.9 billion at June 30, 2002. The decrease is primarily attributed to the payment of pension benefits that exceeded the sum of investment returns and employee and employer contributions.
- The rate of return for the fiscal year ended June 30, 2003 (FY2003) was 3.0% compared to the fiscal year ended June 30, 2002 return of a negative 5.5%.
- No significant legislation was enacted during the 2003 legislative session that has a material impact on the financial position of the Fund. See the "Pension Plan Changes" later for a summary of the legislative changes that affect the System and its membership.
- The actuarial funded ratio as of the latest valuation dated June 30, 2003 decreased to 75.9% from 84.0% as of June 30, 2002. As discussed above, the decrease is due to lower than expected investments returns during the past three years and the payout of benefits greater than total contributions received.
- Total employee and employer contributions increased by almost \$24.9 million during the year due primarily from an increase in the employer contributions.
- Total pension plan benefit payouts increased by 6.6% during FY2003 to \$602.8 million from \$565.6 million in FY2002. The increase is primarily due to the growth in the number of retirees and the annual post-retirement increase.
- Administrative expenses increased by 17.8% to \$6.8 million during FY2003 from \$5.8 million during FY 2002 and were within the System's budgeted amounts for both years. The major increases are attributable to a significant increase in legal services resulting from an increase in the number of lawsuits involving the ERS, an increase in salaries and wages due to an increase in the number of positions filled during the year, overtime, an increase in the fringe benefit rate for all State employees and increased repairs and maintenance due to delays in our office

automation project. These increases were offset by completion of a one-time pension benefit study completed in FY2003 as required by legislation passed in 2001, and a decrease in depreciation of equipment.

### Overview of the Financial Statements

The ERS financial statements include fiduciary type funds that are used to account for resources held for the benefit of parties outside of ERS. The primary fund is defined as a pension trust fund as these assets are held for the benefit of our members and their beneficiaries for the payment of pension benefits, while the Contribution Fund is an agency type fund that is custodial in nature. Throughout this discussion and analysis units of measure (i.e. billions, millions, and thousands) are approximate, being rounded up or down to the nearest tenth of the respective unit value.

This discussion and analysis is intended to serve as an introduction to the ERS financial reporting which is comprised of the following components

- The Statements of Plan Net Assets provide a snapshot of the financial position of the System at June 30, 2003 and June 30, 2002. These financial statements reflect the resources available to pay benefits to members, including retirees and beneficiaries, at the end of the fiscal years reported.
- The Statements of Changes in Plan Net Assets summarize ERS' financial activities that occurred during the fiscal period from July 1, 2002 to June 30, 2003 (FY2003), and comparative amounts for the previous fiscal year from July 1, 2001 to June 30, 2002 (FY2002). The financial statements measure the changes in the resources available to pay pension benefits to members, retirees and beneficiaries for fiscal years 2003 and 2002.
- The Notes to Financial Statements provide additional information that is essential to a full understanding of the financial statements. The notes are an integral part of the financial statements and include detailed information that is essential to a full understanding of the data provided in the basic financial statements.
- The Required Supplementary Information immediately following the notes to financial statements provides two schedules showing historical actuarial information concerning the funded status of ERS and the employer contributions, with related notes.
- The remaining supplementary information provides additional detailed information concerning the changes in operating funds established by legislation, and the operating and investment related expenses of the System.

Analysis of Plan Net Assets for Pension Trust**Summary of Plan Net Assets***June 30,*

	<i>(dollars in millions)</i>		<b>Change</b>
	<b>2003</b>	<b>2002</b>	
<b>Assets</b>			
Cash and short-term investments	\$ 521.6	\$ 309.9	68.3 %
Receivables	169.4	218.9	(22.6)%
Investments	7,504.3	7,827.1	(4.1)%
Invested securities lending collateral	486.0	489.7	(0.8)%
Other assets	4.8	4.9	(2.7)%
<b>Total Assets</b>	<b>8,686.1</b>	<b>8,850.5</b>	<b>(1.9)%</b>
<b>Liabilities</b>			
Securities lending liability	486.0	489.6	(0.7)%
Investment accounts and other payables	512.9	455.4	12.6 %
<b>Total liabilities</b>	<b>998.9</b>	<b>945.0</b>	<b>5.7 %</b>
<b>Plan Net Assets</b>	<b>\$7,687.2</b>	<b>\$7,905.5</b>	<b>(2.8)%</b>

**Summary of Changes in Plan Net Assets***Year Ended June 30,*

	<i>(dollars in millions)</i>		<b>Change</b>
	<b>2003</b>	<b>2002</b>	
<b>Additions:</b>			
Contributions	\$ 247.8	\$ 222.9	11.2 %
Net investment income (loss)	146.1	(504.0)	129.0 %
<b>Total Additions</b>	<b>393.9</b>	<b>(281.1)</b>	<b>240.2 %</b>
<b>Deductions</b>			
Retirement benefit payments	602.8	565.5	6.6 %
Refunds of contributions	2.6	3.2	(19.7)%
Administrative expenses	6.8	5.8	17.8 %
<b>Total Deductions</b>	<b>612.2</b>	<b>574.5</b>	<b>6.6 %</b>
<b>Decrease in Plan Net Assets</b>	<b>\$ (218.3)</b>	<b>\$ (855.6)</b>	<b>74.5 %</b>

Investments

ERS is a long-term investor and manages the pension trust assets with long-term objectives in mind. A primary element of ERS' investment philosophy is that diversification among various asset classes is a prudent way to achieve its goals. ERS makes estimates of long-term market return and establishes an asset allocation plan taking into account the risk associated with each asset class as well as the financial objectives of the System.

For FY2003, the System's rate of return on pension trust investments was almost 3.0% which is primarily attributable to positive returns from the System's fixed income managers which were offset by the performance of the System's equity managers.

The asset distribution of ERS investment securities for the pension trust, excluding pending trade settlements and securities lending collateral, at June 30, 2003 and June 30, 2002 at fair market value is presented below. Please refer to the Investment Section of the CAFR for a discussion on asset allocation plan targets and investments by investment strategy.

Asset Class June 30,	<i>(dollars in millions)</i>			
	2003	%	2002	%
Short-term and cash	\$ 521.6	6.5%	\$ 309.9	3.9%
Equity securities	3,356.8	41.8%	3,363.2	41.3%
Fixed income	2,094.6	26.1%	2,426.9	29.8%
Index funds	1,178.7	14.7%	1,089.2	13.4%
Real estate	587.5	7.3%	619.7	7.6%
Real estate mortgages	37.1	0.5%	89.6	1.1%
Alternative investments	249.6	3.1%	238.5	2.9%
Total	<u>\$8,025.9</u>	100.0%	<u>\$8,137.0</u>	100.0%

#### Short-term and cash

Investments in short-term securities and cash of the pension trust as of June 30, 2003 increased by \$211.7 million in comparison to holdings as of June 30, 2002. Most of these funds are held by external investment managers for the settlement of pending trades and investments.

#### Equity securities and index funds

The allocation to equity securities, including index funds, remained relatively constant during the year with total investments increasing by \$83.1 million.

#### Fixed Income

Fixed income decreased by \$332.3 million at June 30, 2003 when compared to June 30, 2002 primarily due to reductions of the asset class during FY2003 to pay for pension benefits in accordance with our asset allocation strategy. The decrease was partially offset by the positive domestic and international bond market performance during the year.

#### Real Estate and Real Estate Mortgages

The total real estate related investments decreased by \$84.7 million during FY2003 as a result of the transfer of cash from net rental activities to pay for pension obligations, the sale of several properties, and the foreclosure of delinquent mortgages.

#### Alternative Investments

Investments increased in alternative investments by \$11.1 million due to the additions of new investment partnerships and the drawdowns of commitments to existing investments in accordance

with ERS' asset allocation plan targets. The increase was partially offset by negative investment returns in the private equity markets.

#### Contributions and Investment Income

During FY 2003 contributions from employers and employees totaled \$247.8 million compared to \$222.9 million during FY2002. The increase in employer contributions of \$23.1 million is in accordance with results of the actuarial valuations dated June 30, 2000 and June 30, 1999. The increase in employer contributions also includes the cost of a one-time lump sum bonus of \$200 for certain retirees as a result of Act 233/2002. Although the number of contributory members continues to decline, receipts from members increased by approximately \$1.8 million due to increases in covered payroll for contributory members.

Net investment earnings were \$146.1 million during FY2003 compared to a loss of (\$504.0) during FY2002. Net investment income and loss also includes net income from securities lending activities as an addition and investment expenses as a deduction.

The System earns additional incremental investment income by lending investments securities to brokers. This is done on a pooled basis by ERS' custodial bank, State Street Bank (SSB). The brokers provide collateral to SSB and generally use the borrowed securities to cover short sales and failed trades. SSB invests the cash collateral received from the brokers in order to earn interest. The net securities lending income decrease by approximately \$1.0 million during FY2003 represents a decrease in the demand by brokers to borrow available securities and from lower interest rates.

Investment expenses consists primarily of investment management fees paid to external investment advisor firms that oversee the ERS investment portfolio. Total investment expenses for FY2003 increased by approximately \$0.5 million over FY2002 due to foreclosure related expenses. The increase was offset by a reduction in the investment advisor fees paid due to the termination of external managers during the year by the Board of Trustees and lower net asset values.

#### Pension Plan Benefits and Expenses

The primary source of expense during FY2003 was for the payment of pension benefits totaling \$602.8 million which compares to \$565.6 million during FY2002. Pension benefits increased 6.6% primarily due to the number of new retirees and the annual post-retirement increase. Pension benefits also included a one-time payment of \$200 to certain pensioners in accordance with Act 233/2002. Refunds of contributions decreased by 19.7% during the year and are in line with the declining number of contributory members. Administrative expenses totaled almost \$6.8 million during FY2003 compared to \$5.8 million during FY2002.

#### Pension Plan Changes

Act 118/2003 restores the method to calculate "Average Final Compensation" or AFC to the methodology used prior to January 1, 2003 (rescinding the change enacted under Act 128/2002). Act 119/2003 allows certain positions at the University of Hawaii to be aggregated for membership and benefits of the System. Act 121/2003 requires foreign nationals working in the United States on a visa

to become noncontributory members. Act 134/2002 requires the System to pay 4-1/2% interest to retirees for delays in finalizing of their pension benefit amount, and allows ERS to assess the employers a monthly fee for delays in providing certain information. Act 199/2003 provides a 6-year phase-in to unreduced retirement benefits with 25 years of service regardless of age for Emergency Medical Technicians.

The effects of these legislative changes are included in the System's actuarial valuation at June 30, 2003.

#### Actuarial Valuations and Funded Status

The System uses an actuarial reserve type of funding that is financed by member contributions, employer contributions and earnings from invested assets. An independent actuarial valuation of ERS actuarial assets and liabilities is performed annually. As part of this valuation, the progress toward funding pension obligations of the retirement system is measured by comparing the actuarial value of assets to actuarial accrued liability. This measurement is referred to as the funded ratio or funded status. The actuarial funded status declined to 75.9% as of June 30, 2003 from 84.0% as of June 30, 2002, or a decrease of 8.1%. The funded ratio decrease was the result of investment returns below the investment return assumption of 8% for the last three years.

At June 30, 2003 the System's unfunded actuarial accrued liability had increased to \$2.9 billion from \$1.8 billion as of June 30, 2002. This is an increase in the unfunded liability of almost \$1.1 billion for the year. At June 30, 2003 the difference between the actuarial value of the assets and the market value of the assets was about \$1.4 billion in actuarially deferred losses. This was a decrease of \$122.9 million in actuarially deferred losses from the \$1.5 billion actuarially deferred losses at June 30, 2002. These actuarially deferred losses will be recognized by the actuary over the next following three actuarial valuations under the actuarial asset valuation method. In the absence of offsetting gains during these three plan years, the employers' contribution requirements are expected to significantly increase.

COMBINING STATEMENTS OF PLAN NET ASSETS –  
ALL TRUST AND AGENCY FUNDS

	June 30,		
	2003		
	Pension Trust Employees' Retirement System	Agency Social Security Contribution	Total
<b>ASSETS</b>			
Cash and short-term investments (notes C2 and F)			
Cash	\$ 11,987,942	\$ 259	\$ 11,988,201
Short-term investments	509,651,269	1,383,589	511,034,858
	<u>521,639,211</u>	<u>1,383,848</u>	<u>523,023,059</u>
Receivables			
Accounts receivable and others	811,286		811,286
Investment sales proceeds	136,836,097	–	136,836,097
Accrued investment income	29,674,969	–	29,674,969
Employer appropriations	1,402,600	9,478,289	10,880,889
Member contributions	643,723	–	643,723
	<u>169,368,675</u>	<u>9,478,289</u>	<u>178,846,964</u>
Investments, at fair value (notes C2 and F)			
Equity securities	3,356,750,689	–	3,356,750,689
Fixed income securities	2,094,619,386	–	2,094,619,386
Index funds	1,178,688,353	–	1,178,688,353
Real estate investments	587,477,227	–	587,477,227
Real estate mortgages (note I)	37,141,699	–	37,141,699
Alternative investments	249,608,820	–	249,608,820
	<u>7,504,286,174</u>	<u>–</u>	<u>7,504,286,174</u>
Other			
Invested securities lending collateral (note F)	486,040,925	–	486,040,925
Equipment at cost, net of depreciation (note K)	4,762,843	–	4,762,843
Other assets	40,628	–	40,628
	<u>490,844,396</u>	<u>–</u>	<u>490,844,396</u>
Total assets	8,686,138,456	10,862,137	8,697,000,593
<b>LIABILITIES</b>			
Bank overdraft (note F)	13,405,231	–	13,405,231
Accounts and other payables (note I)	20,857,309	–	20,857,309
Investment commitments payable	478,635,108	–	478,635,108
Payable to Internal Revenue Service	–	6,568,665	6,568,665
Due to employers	–	4,293,472	4,293,472
Securities lending collateral (note F)	486,040,925	–	486,040,925
Total liabilities	998,938,573	10,862,137	1,009,800,710
Commitments and contingencies (notes F, G, H and I)	–	–	–
Net assets held in trust for pension benefits (note D) (a schedule of funding progress is presented on page 44)	<u>\$ 7,687,199,883</u>	<u>\$ –</u>	<u>\$ 7,687,199,883</u>

The accompanying notes are an integral part of these statements.

2002		
Pension Trust	Agency	
Employees' Retirement System	Social Security Contribution	Total
\$ 23,870,326	\$ 916,681	\$ 24,787,007
286,021,193	3,015,875	289,037,068
309,891,519	3,932,556	313,824,075
748,798		748,798
183,356,738	-	183,356,738
34,196,540	-	34,196,540
-	13,573,483	13,573,483
643,112	-	643,112
218,945,188	13,573,483	232,518,671
3,363,151,683	-	3,363,151,683
2,426,865,673	-	2,426,865,673
1,089,153,795	-	1,089,153,795
619,733,518	-	619,733,518
89,648,871	-	89,648,871
238,544,762	-	238,544,762
7,827,098,302	-	7,827,098,302
489,657,768	-	489,657,768
4,825,611	-	4,825,611
111,771	-	111,771
494,595,150	-	494,595,150
8,850,530,159	17,506,039	8,868,036,198
3,536,795	-	3,536,795
27,582,781	-	27,582,781
424,300,174	-	424,300,174
-	6,988,385	6,988,385
-	10,517,654	10,517,654
489,657,768	-	489,657,768
945,077,518	17,506,039	962,583,557
-	-	-
\$ 7,905,452,641	\$ -	\$ 7,905,452,641



## STATEMENTS OF CHANGES IN PLAN NET ASSETS

Year ended June 30,

	2003	2002
<b>Additions</b>		
Appropriations and contributions (note E)		
Employers	\$ 190,586,276	\$ 167,458,900
Members	57,214,521	55,451,216
Total contributions	247,800,797	222,910,116
<b>Investment income (loss)</b>		
From investing activities		
Net depreciation in fair value of investments	(43,289,894)	(754,458,333)
Interest on fixed income securities	108,389,945	131,013,074
Dividends on equity securities	44,618,281	58,882,771
Interest and fees on real estate mortgages, net	2,096,318	7,761,469
Interest on short-term investments	3,736,280	7,723,429
Income on real estate investments	43,905,926	54,349,138
Alternative investment income	7,567,513	9,655,126
Miscellaneous	1,459,584	1,930,643
	168,483,953	(483,142,683)
Less investment expenses	23,984,082	23,516,718
Net investment income (loss)	144,499,871	(506,659,401)
From securities lending activities		
Securities lending income	7,171,283	14,384,853
Securities lending expenses		
Borrower rebates	5,120,608	11,056,109
Management fees	409,795	664,436
Less securities lending activities expense	5,530,403	11,720,545
Net income from securities lending activities	1,640,880	2,664,308
Total net investment income (loss)	146,140,751	(503,995,093)
Total additions	393,941,548	(281,084,977)
<b>Deductions</b>		
Benefit payments (note A3)	569,235,512	530,381,277
Refund option payments	33,569,568	35,178,028
Refunds of member contributions	2,605,602	3,244,334
Refunds paid to State and counties	2,800	-
Administrative expenses	6,780,824	5,754,832
Total deductions	612,194,306	574,558,471
NET DECREASE	(218,252,758)	(855,643,448)
<b>Net assets held in trust for pension benefits (note D)</b>		
Beginning of year	7,905,452,641	8,761,096,089
End of year	\$ 7,687,199,883	\$ 7,905,452,641

The accompanying notes are an integral part of these statements.

## NOTES TO FINANCIAL STATEMENTS

June 30, 2003 and 2002

## NOTE A – DESCRIPTION OF THE SYSTEM

1. General

The Employees' Retirement System of the State of Hawaii (System) began operations on January 1, 1926, having been established by the Territorial Legislature in the preceding year. The System is a cost-sharing, multiple-employer public employee retirement system established to administer a pension benefits program for all State and county employees, including teachers, police officers, firefighters, correction officers, judges and elected officials.

Employer, pensioner and employee membership data as of March 31,:

	<u>2003</u>	<u>2002</u>
Employers:		
State	1	1
Counties	<u>4</u>	<u>4</u>
Total employers	<u>5</u>	<u>5</u>
Pensioners and beneficiaries currently receiving benefits:		
Pensioners currently receiving benefits:		
Police and firefighters	2,579	2,433
All others	<u>27,151</u>	<u>26,337</u>
Total pensioners	29,730	28,770
Beneficiaries currently receiving benefits:		
Police and firefighters	126	135
All others	<u>1,533</u>	<u>1,425</u>
Total beneficiaries	<u>1,659</u>	<u>1,560</u>
Total pensioners and beneficiaries	<u>31,389</u>	<u>30,330</u>
Terminated vested members entitled to benefits but not yet receiving benefits:		
Police and firefighters	130	115
All others	<u>4,020</u>	<u>3,720</u>
Total terminated vested members	<u>4,150</u>	<u>3,835</u>
Current employees:		
Vested:		
Police and firefighters	3,635	3,616
All other employees	33,032	32,507
Nonvested:		
Police and firefighters	1,021	1,118
All other employees	<u>24,604</u>	<u>24,967</u>
Total current employees	<u>62,292</u>	<u>62,208</u>

## NOTE A – DESCRIPTION OF THE SYSTEM (continued)

2. The Financial Reporting Entity

As required by accounting principles generally accepted in the United States of America, these financial statements present the System (the primary government) as a separate reporting entity from the State of Hawaii (State). The System is not part of the State's financial reporting entity because it is a separate legal entity that is fiscally independent of the State. The System was established by Chapter 88 of the Hawaii Revised Statutes and is governed by a Board of Trustees (Board) as discussed below. As the primary government, the System has included the Social Security Contribution Fund in its financial statements since the Social Security Contribution Fund is not a legally separate entity.

The Board administers the System on behalf of public employees of both the State and county governments. Except for limited administrative functions, the State does not have the power to supervise or control the Board in the exercise of its functions, duties and powers. The Board consists of eight members. The State Director of Finance is a statutory member of the Board. Four members of the Board are elected by members of the System and the other three members of the Board are appointed by the Governor. Decisions are made with the concurring vote of five members of the Board. The Board appoints the Administrator and Chief Investment Officer and engages actuarial and other services required to transact the business of the System.

3. Benefits

Members of the System belong to either the contributory or noncontributory plan. All assets of the System (in the Pension Trust) may be used to pay benefits to any member of the System. Employees covered by Social Security on June 30, 1984 were given the option of joining the noncontributory plan or remaining in the contributory plan. All new employees hired after June 30, 1984, who are covered by Social Security, are generally required to join the noncontributory plan. Most members of the contributory plan are required to contribute 7.8% of their salary. Both plans provide a monthly retirement allowance based on the member's age, years of credited service, and average final compensation (AFC). The AFC is the average salary earned during the five highest paid years of service, including the payment of salary in lieu of vacation, or three highest paid years of service, excluding the payment of salary in lieu of vacation, if the employee became a member prior to January 1, 1971. The AFC for members hired on or after this date is based on the three highest paid years of service excluding the payment of salary in lieu of vacation. Vesting requirements for the contributory and noncontributory plans are five years and ten years, respectively.

Ordinary disability retirement benefits require a minimum of ten years of service, whereas service connected disability resulting from a job related accident does not have any service requirement. Under both plans, there is no age requirement.

Ordinary death benefits under the contributory and noncontributory plans require at least one year and ten years of service, respectively. Under both plans, there is no service requirement for service connected death benefits.

---

**NOTE A – DESCRIPTION OF THE SYSTEM (continued)****3. Benefits (continued)**

Retirement benefits for certain groups of contributory members, such as police officers, firefighters, some investigators, sewer workers, judges and elected officials, vary from general employees. All contributions, benefits and eligibility requirements are governed by Chapter 88 of the Hawaii Revised Statutes.

Every retiree's original retirement allowance is increased by 2-1/2% on each July 1 following the calendar year of retirement. This cumulative benefit is not compounded and increases each year by 2-1/2% of the original retirement allowance without a ceiling (2-1/2% of the original retirement allowance the first year, 5% the second year, 7-1/2% the third year, etc.).

**NOTE B – SOCIAL SECURITY CONTRIBUTION FUND**

The Social Security Contribution Fund (Contribution Fund) was established under Section 88-224 of the Hawaii Revised Statutes for the following purposes:

1. To receive all federal social security employers' contributions from the State and interest and penalties on unpaid amounts;
2. To receive any appropriations to the Contribution Fund;
3. To pay amounts required to be paid to the Internal Revenue Service (IRS); and
4. Invest and collect income on resources held by the Contribution Fund.

All other governmental agencies remit social security contributions directly to the IRS. Social security contributions withheld from employees are remitted directly to the IRS by the employers.

**NOTE C – SUMMARY OF ACCOUNTING POLICIES**

A summary of the significant accounting policies consistently applied in the preparation of the accompanying financial statements follows.

**1. Basis of Accounting**

Fiduciary funds are used to account for assets held by the System in a trustee capacity or as an agent for individuals, private organizations, other governments, and or other funds. The fiduciary fund types used by the System are a pension trust fund and an agency fund. Each of the fiduciary funds are considered a separate fiscal and accounting entity with a self-balancing set of accounts that comprise its assets, liabilities, equity, revenues and expenditures, or expenses, as appropriate. The accounting and reporting treatment applied to a fund is determined by its measurement focus. The Pension Trust Fund is accounted for on a flow of economic resources measurement focus. As an agency fund, the Contribution Fund is custodial in nature and does not measure results of operations.

## NOTE C – SUMMARY OF ACCOUNTING POLICIES (continued)

1. Basis of Accounting (continued)

The financial statements are prepared using the accrual basis of accounting under which expenses are recorded when the liability is incurred, revenues are recorded in the accounting period in which they are earned and become measurable. Employer and 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 the plan. Investment purchases and sales are recorded as of their trade date. Administrative expenses are financed exclusively with investment income.

2. Investments

Pursuant to Section 88-119 of the Hawaii Revised Statutes, the System may invest in real estate loans and mortgages; preferred and common stocks; government obligations; corporate obligations; certain other debt obligations (such as obligations secured by collateral of certain other authorized securities listed here, obligations issued or guaranteed by certain development banks, insurance company obligations); real property; alternative investments; and other securities and futures contracts. The investment decision is further dictated by internal investment policies and asset allocation established by the Board of Trustees. Assets in the Pension Trust may be invested in any of these assets, while investments in the Contribution Fund are limited to investment grade, short-term marketable securities.

Investments are reported at fair value. Where appropriate, the fair value includes disposition costs. Short-term investments are reported at cost, which approximates fair value. Securities (categorized as fixed-income, equity, index funds, and alternative investments) traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Mortgages are valued on the basis of future principal and interest payments. The fair value of real estate investments is based on independent appraisals and estimated values. Investments that do not have an established market are reported at estimated fair value.

3. Interest and Earnings Allocation

Pursuant to Section 88-21 and 88-107 of the Hawaii Revised Statutes, the Board shall annually allocate interest and other earnings of the System to the funds of the System, as follows:

- a. Annuity Savings Fund – Fixed at 4-1/2% regular interest rate.
- b. Expense Fund – To be credited all money to pay the administrative expenses of the System.
- c. Pension Accumulation Fund – To be credited with any remaining investment earnings.

---

**NOTE C – SUMMARY OF ACCOUNTING POLICIES (continued)****4. Risk Management**

The System reports liabilities, as discussed in note G, related to certain types of losses (including torts, theft of, damage to, or destruction of assets, errors or omissions, natural disasters and injuries to employees) when it is probable that the losses have occurred and the amount of those losses can be reasonably estimated.

**5. Use of Estimates**

In preparing financial statements in conformity with accounting principles generally accepted in the United States of America, management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

**6. Reclassifications**

Certain reclassifications have been made to the 2002 financial statements to conform to the 2003 presentation.

**NOTE D – DESCRIPTION OF FUNDS**

Section 88-109 of the Hawaii Revised Statutes requires the establishment and maintenance of specific funds. The funds in the Pension Trust and their purposes are described hereunder:

**1. Pension Accumulation Fund**

To accumulate contributions made by the State and counties, transfers of retired members' contributions plus related interest income from the Annuity Savings Fund and income from investments. All pension benefits, including the pensioners' bonus are paid through this Fund.

**2. Annuity Savings Fund**

To accumulate members' contributions and related interest income. Upon a member's retirement, the accumulated contributions and related interest income are transferred to the Pension Accumulation Fund or refunded to the member upon termination.

**3. Expense Fund**

To pay all the expenses necessary in connection with the administration and operation of the System. The Board estimates the amount of money necessary to be paid into the expense fund for the ensuing biennium to provide for the expense of operation of the System, and pays that amount into the expense account from the investment earnings of the System, subject to review by the legislature and approval by the Governor.

## NOTE D – DESCRIPTION OF FUNDS (continued)

Net assets held in trust for pension benefits as of June 30, are as follows:

	2003	2002
Pension Accumulation Fund	\$6,768,638,086	\$6,977,024,613
Annuity Savings Fund	906,504,024	915,247,830
Expense Fund	12,057,773	13,180,198
Total net assets held in trust for pension benefits	<u>\$7,687,199,883</u>	<u>\$7,905,452,641</u>

## NOTE E – CONTRIBUTIONS

The System's funding policy provides for periodic employer contributions at actuarially determined rates, expressed as a percentage of annual covered payroll, such that the employer contributions, along with employee contributions and an actuarially determined rate of investment return, are adequate to accumulate sufficient assets to pay benefits when due. The funding method used to calculate the total employer contribution required is the entry age normal actuarial cost method. Under this method, the total employer contribution is comprised of the "normal cost" plus the level annual payments required to amortize the unfunded actuarial accrued liability over the closed period ending June 30, 2029. The employer normal cost is the level percentage of payroll contribution required to pay all benefits. Actuarial gains and losses resulting from differences between actual and assumed experience are reflected in the employer unfunded accrued liability.

Most members of the contributory plan are required to contribute 7.8% of their salary. Police officers, firefighters, investigators of the department of prosecuting attorney and the attorney general, narcotics enforcement investigators, and public safety investigators are required to contribute 12.2% of their salary.

Employer and member contributions are governed by Chapter 88 of the Hawaii Revised Statutes. The annual required employer contributions for the years ended June 30, 2003 and 2002 were determined as part of actuarial valuations dated June 30, 2000 and 1999, respectively.

## NOTE F – CASH DEPOSITS AND INVESTMENTS

The System's policy is to invest cash in excess of operating requirements in income-producing investments. The carrying amount of the System's total deposits (including those classified as short-term investments) as of June 30, 2003 and 2002, net of a bank overdraft of \$13,405,231 and \$3,536,795, was \$143,815,312 and \$51,973,519 (which includes cash and time deposits of \$145,432,343 and \$30,923,302), respectively. Total bank balances of these deposits amounted to \$158,597,098 and \$56,399,655, respectively. Of the bank balances, \$2,111,435 and \$2,540,877, respectively, was covered by the Federal Deposit Insurance Corporation or by collateral held by the System or by its agent in the System's name, and \$156,485,663 and \$53,858,778, respectively, was uninsured and uncollateralized. The uninsured and uncollateralized balances are primarily U.S. dollar equivalents of foreign cash held for the purpose of settling transactions.

## NOTE F – CASH DEPOSITS AND INVESTMENTS (continued)

The System's investments are categorized to give an indication of the level of risk assumed at fiscal year end. The three categories of credit risk are:

- Category 1 includes investments that are insured or registered, or for which the securities are held by the System or its agent in the System's name.
- Category 2 includes uninsured and unregistered investments for which the securities are held by the counterparty's trust department or agent in the System's name.
- Category 3 includes uninsured and unregistered investments for which the securities are held by the counterparty or by its trust department or agent, but not in the System's name.

The System's investments that can be categorized within these guidelines meet the criteria of category 1. A security, for purposes of classification in the above categories, is a transferable financial instrument that evidences ownership or creditor status. "Securities" do not include investments made with another party, real estate or direct investments in mortgages. Investments in mutual funds, limited partnerships, and commingled trust funds also are not considered securities for purposes of credit risk classification. Such investments are shown in the schedule on the below as "not subject to classification."

The following table summarizes the risk categories and fair values of investments held by the System as of June 30,:

	2003 (in thousands)		2002 (in thousands)	
	Category 1	Fair value	Category 1	Fair value
Short-term securities:				
U.S. Treasury issues	\$ 5,137	\$ 5,137	\$ 891	\$ 891
Commercial paper	79,216	79,216	920	920
Certificates of deposit	145,232	145,232	30,723	30,723
	<u>229,585</u>	<u>229,585</u>	<u>32,534</u>	<u>32,534</u>
Equity securities:				
Common stock				
Not on securities loan	3,016,478	3,016,478	2,627,332	2,627,332
Depository receipts, preferred stock and other				
Not on securities loan	2,527	2,527	207,612	207,612
	<u>3,019,005</u>	<u>3,019,005</u>	<u>2,834,944</u>	<u>2,834,944</u>
Fixed income securities:				
Mortgage-backed securities				
Not on securities loan	584,490	584,490	769,512	769,512
U.S. Government bonds				
Not on securities loan	134,776	134,776	96,568	96,568
Foreign bonds				
Not on securities loan	480,528	480,528	747,249	747,249
On securities loan for noncash collateral	185	185	-	-
U.S. corporate bonds				
Not on securities loan	478,352	478,352	485,945	485,945
Asset backed securities	89,846	89,846	155,122	155,122
Other				
Not on securities loan	26,974	26,974	43,968	43,968
	<u>1,795,151</u>	<u>1,795,151</u>	<u>2,298,364</u>	<u>2,298,364</u>
Total categorized investments	<u>\$5,043,741</u>	<u>\$5,043,741</u>	<u>\$5,165,842</u>	<u>\$5,165,842</u>



## NOTE F – CASH DEPOSITS AND INVESTMENTS (continued)

	2003 (in thousands)		2002 (in thousands)	
	Category 1	Fair value	Category 1	Fair value
Total categorized investments brought forward		\$5,043,741		\$5,165,842
Investments not subject to categorization:				
Investments held by broker dealers under securities loans for cash collateral:				
Short-term securities:				
U.S. Treasury issues		3,242		–
Commercial paper		23,037		–
Equity securities:				
Common stock		139,160		344,023
Depository receipts, preferred stock and other		1,238		2,669
Fixed income securities:				
Mortgage-backed securities		10,811		–
U.S. Government bonds		140,345		94,778
Foreign bonds		135,376		383
U.S. corporate bonds		13,141		33,342
Other		295		–
Mutual funds, commingled funds, and others				
Short-term securities		255,170		256,503
Equity securities		197,348		183,120
Index funds		1,178,688		1,089,154
Real estate investments		587,477		619,733
Real estate mortgages		37,142		89,649
Alternative investments (direct investments in timber properties, limited partnership, and limited liability company interests)		249,609		238,545
		<u>2,972,079</u>		<u>2,951,899</u>
Total investments		<u>\$8,015,820</u>		<u>\$8,117,741</u>

## Reconciliation to investments on combining statements of plan net assets:

	2003 (in thousands)	2002 (in thousands)
Total investments	\$8,015,820	\$8,117,741
Less short-term securities		
U.S. Treasury issues	(8,379)	(891)
Commercial paper	(102,253)	(920)
Pooled funds and other	(255,170)	(256,503)
Certificates of deposit	(145,232)	(30,723)
Less investments on securities loans that were sold and pending settlement; included in investment sales proceeds receivable		
U.S. Treasury issues	(500)	–
Common stock	–	(1,606)
Investments on combining statements of plan net assets	<u>\$7,504,286</u>	<u>\$7,827,098</u>

## NOTE F – CASH DEPOSITS AND INVESTMENTS (continued)

Short-term securities and part of the pooled funds and other are reported as short-term investments in the accompanying combining statements of plan net assets.

The following manager held investments at fair value in excess of 5% of the System's net asset held in trust for pension benefits as of June 30,:

	<u>2003</u>	<u>2002</u>
Mellon Enhanced Equity Index Fund	\$876,077,475	\$790,056,063

1. Derivative Investments

The System enters into various derivative investment contracts to hedge, reduce costs and enhance liquidity. As with any investment, derivative contracts are subject to various types of credit and market risks. Notably, these would include the possible inability of a counterparty to meet the terms of the contract, changes in the market value of the underlying collateral, or changes in the interest rate environment. Certain of the System's investments in derivative securities and contracts and their associated credit and market risks are described as follows:

Forward Currency Exchange Contracts

The System enters into various forward currency exchange contracts to manage exposure to changes in foreign currency exchange rates and to facilitate the settlement of foreign security transactions. A forward contract is an agreement to buy or sell a specific amount of currency at a specific delivery or maturity date for an agreed-upon price. Risks associated with such contracts include movements in the value of the foreign currency relative to the U.S. dollar and the ability of the counterparty to perform in accordance with the terms of the contract. Changes in the market value of open and closed forward contracts are recorded as net appreciation in fair value of investments in the statement of changes in plan net assets. The fair value of forward currency exchange contracts outstanding at June 30, is as follows:

	<u>2003</u>	<u>2002</u>
Forward currency purchases	\$ 479,627,480	\$ 545,095,222
Forward currency sales	<u>(478,131,674)</u>	<u>(553,181,281)</u>
Unrealized gains (losses)	<u>\$ 1,495,806</u>	<u>\$ (8,086,059)</u>

Mortgage-Backed Securities

As of June 30, 2003 and 2002, the fair value of mortgage-backed securities issued or backed by the U.S. government or its agencies, or corporate issues rated AAA by at least one of the major rating agencies was \$519,442,061 and \$617,513,612, respectively. A mortgage-backed security depends on the underlying pool of mortgage loans to provide the cash flow to make principal and interest payments on the security. Therefore, they are sensitive to

## NOTE F – CASH DEPOSITS AND INVESTMENTS (continued)

1. Derivative Investments (continued)Mortgage-Backed Securities

prepayments by mortgagees, which may result from a decline in interest rates. For example, if interest rates decline and homeowners refinance mortgages, thereby pre-paying the mortgages underlying these securities, the cash flows from interest payments are reduced and the value of these securities declines. Conversely, if homeowners pay on mortgages longer than anticipated, the cash flows are greater and the return on the investment would be higher than anticipated. A collateralized mortgage obligation (CMO) is a mortgage-backed security that is comprised of classes of bonds created by prioritizing the cash flows of the underlying mortgage pool. As of June 30, 2003 and 2002, the fair value of CMO securities was \$100,943,312 and \$151,998,511, respectively.

2. Securities Lending

The System participated in a securities lending program administered by its bank custodian. Under this program, which is permissible under Chapter 88 of the Hawaii Revised Statutes, certain equity and fixed income securities of the System were lent to participating broker-dealers and banks (borrowers). In return, the System received cash, securities issued or guaranteed by the U.S. government and/or letters of credit as collateral. The System did not have the ability to pledge or sell collateral securities absent of borrower default. Borrowers were required to deliver collateral for each loan equal to: (a) in the case of loaned securities denominated in U.S. dollars or whose primary trading market was located in the U.S., 102% of the market value of the loaned securities; and (b) in the case of loaned securities not denominated in U.S. dollars or whose primary trading market was not located in the U.S., 105% of the market value of the loaned securities. The collateral was marked to market daily. If the market value of the collateral fell below the minimum collateral requirements, additional collateral was provided. Securities on loan for cash collateral are presented as unclassified in the preceding schedule of custodial credit risk; securities on loan for securities collateral are classified according to the underlying security. At June 30, 2003 and 2002, the System had no credit risk exposure to borrowers because the market value of collateral held by the System exceeded the market value of securities loaned. As of June 30, 2003 and 2002, the market value of securities loaned amounted to approximately \$469,589,342 and \$477,069,815, respectively, and the associated collateral amounted to approximately \$486,040,925 and \$489,657,768, respectively. In addition, the bank custodians indemnified the System by agreeing to purchase replacement securities or return cash collateral in the event the borrower failed to return the loaned security or pay distributions.

The System did not impose any restrictions on the amount of loans the bank custodian made on behalf of the System. Also, the System and the borrowers maintained the right to terminate securities lending transactions on demand. As such, the maturities of the investments made

## NOTE F – CASH DEPOSITS AND INVESTMENTS (continued)

2. Securities Lending (continued)

with cash collateral generally did not match the maturities of the securities loans. The extent of such mismatch as of June 30, 2003 and 2002 was 62 and 71 days, respectively.

3. Foreign Investments

The fair value of the System's investments in foreign equity and fixed income securities as of June 30, is as follows:

	<u>2003</u>	<u>2002</u>
Foreign equity securities	\$1,045,636,632	\$1,034,224,793
Foreign fixed income securities	616,089,286	747,631,789
	<u>\$1,661,725,918</u>	<u>\$1,781,856,582</u>

## NOTE G – RISK MANAGEMENT

The System is exposed to various risks of loss related to torts; theft of, damage to, or destruction of assets; errors or omissions; natural disasters; and injuries to employees. As required by state law, the System participates in coverage with the State of Hawaii. The State retains various risks and insures certain excess layers with commercial insurance policies. The excess layers are consistent with the prior fiscal year. Settled claims for the State have not exceeded the coverage provided by commercial insurance policies in any of the three fiscal years prior to June 30, 2002. Losses not covered by insurance are generally paid from legislative appropriations.

1. Torts

The System is involved in various litigation and claims, including claims regarding retirement benefits, the outcome of which cannot be presently determined, and as discussed in note I. In the opinion of management, the outcome of these actions will not have a material adverse effect on the System's financial position.

2. Property and Liability Insurance

The System also purchased property and liability insurance for all real estate owned from outside carriers. During the past three fiscal years, no loss settlements exceeded insurance coverages.

3. Workers' Compensation Policy

The State has a self-insured workers' compensation policy. Workers' compensation claims are paid from legislative appropriations.

**NOTE H – COMMITMENTS**

In the normal course of business, the System enters into commitments with associated risks. The System adheres to the same credit policies, financial and administrative controls and risk limiting and monitoring procedures for these commitments as for all investments.

The System has future financial commitments of up to an additional \$183,444,000 in real estate and \$160,994,000 in alternative investments as of June 30, 2003.

**NOTE I – CONTINGENCIES**

In 1998, the State of Hawaii Supreme Court ruled against the System in a class action suit filed by the retired public school principals, vice principals and teachers whose retirement benefits were calculated using the "High 3" method of computing average final compensation. Under the terms of the court order, the System was required to recalculate monthly retirement benefits for all members of the class who are (a) school principals and vice principals collecting a retirement benefit in 1984, (b) teachers collecting a retirement benefit in 1988, and (c) members of these groups who have since retired. The System substantially completed payments of over \$4 million to the 4,100 identified class members during the fiscal year ended June 30, 2000. The teachers filed an appeal and were awarded additional moneys as "interest" on the underpayments amounting to approximately \$1,000,000 in October 2000 by the State of Hawaii First Circuit Court. The System has filed an appeal of the First Circuit Court's decision to the Hawaii Supreme Court.

In 2000, the System initiated foreclosure proceedings against a borrower that has been in continued default on a commercial real estate loan, secured by a mortgage and other security interest. The borrowers subsequently filed a counterclaim against the System. In March 2002, the court appointed a receiver for the property at the request of the System and the receiver took possession of the property, operated it under the jurisdiction of the court, and collected and holds the net operating income. In March 2003, the borrowers and the System reached a settlement agreement whereby the borrowers would transfer title to the property to the System and the funds held in escrow as settlement for all claims and counterclaims. The transfer was completed and all claims settled effective upon approval of the court on September 9, 2003. The System will include the assets and liabilities and the results of operations of the property beginning September 9, 2003. As of June 30, 2003, the loan was recorded at fair value at the time of foreclosure, and all interest receivable was written-off.

As of June 30, 2003, the System was involved in a lawsuit relating to the development of a new computer system for the System, under a contract originally awarded in 1999. The contractor filed a lawsuit in 2002 that claimed the System breached the contract. The System filed a separate action against the contractor due to the failure of the contractor to adequately perform its contractual obligations and also named the company that guaranteed performance of the contract and the insurance company that provided a performance bond for the benefit of the System as defendants. The two lawsuits were consolidated by the courts. On September 8, 2003, all parties settled the lawsuits and mutually agreed to terminate the contract for the development of the computer system with the contractor providing the System computer software and licenses, imaged documents and miscellaneous services in exchange for payment of \$1 million by the System to the contractor. The amount will be capitalized in fiscal year 2004 when the goods and services are received.

**NOTE J – DEFERRED COMPENSATION PLAN**

The System does not sponsor a deferred compensation program. System employees are eligible to participate in the deferred compensation plan sponsored by the State of Hawaii. The State sponsored plan was created in accordance with Internal Revenue Code Section 457. The plan, available to all System employees, permits them to defer a portion of their salary until future years. The deferred compensation is not available to the employees until termination, retirement, death, or an unforeseeable emergency. All compensation deferred under the plan is held by a custodian for the exclusive benefit of participants and beneficiaries.

**NOTE K – FIXED ASSETS**

Fixed assets used in the operations are reported in statement of plan net assets at historical cost, net of accumulated depreciation. These assets are depreciated on a straight-line basis over an average useful life of three years, with no salvage value. Accumulated depreciation on equipment as of June 30, 2003 and 2002 was \$2,148,919 and \$1,542,328, respectively.

## REQUIRED SUPPLEMENTARY INFORMATION

June 30, 2003, 2002, 2001, 2000, 1999, 1998 and 1997

SCHEDULES OF FUNDING PROGRESS  
(in thousands)

Actuarial valuation date June 30,	Actuarial value of assets (1)	Actuarial accrued liability (AAL) (2)*	Unfunded actuarial accrued liability (3)*= (2)-(1)	Ratio (4)=(1)/(2)	Covered payroll (5)	UAAL as a percentage of covered payroll (6)=(3)/(5)
2003	\$9,073,960	\$11,952,057	\$2,878,097	75.9%	\$2,826,682	101.8%
2002	\$9,415,160	\$11,210,226	\$1,795,066	84.0%	\$2,671,689	67.2%
2001	\$9,515,957	\$10,506,913	\$990,956	90.6%	\$2,444,200	40.5%
2000	\$9,204,707	\$9,748,033	\$543,316	94.4%	\$2,275,298	23.9%
1999	\$8,590,807	\$9,181,730	\$590,923	93.6%	\$2,186,499	27.0%
1998	\$7,906,216	\$8,492,013	\$585,797	93.1%	\$2,135,945	27.4%

\* Note: Items (2) and (3) include the unfunded liabilities related to the Early Incentive Retirement (EIR) Program retirees who retired on December 31, 1994 and June 30, 1995 amounting to \$69,414,527, \$70,218,385, \$75,173,210, \$77,736,700, \$80,110,400, and \$82,308,100 as of June 30, 2003, 2002, 2001, 2000, 1999, and 1998, respectively. For the fiscal year ended June 30, 2003, the annual payment related to the EIR Program cost of \$5,945,684 is included in the employer contribution requirement on the financial statements. Based on a level amortization period ending June 30, 2029, this represents a reduction of principal and payment of "interest" in the amount \$803,858 and \$5,141,826, respectively.

In June 2000, June 1999 and July 1998, the Legislature of the State of Hawaii enacted Acts 216, 100 and 151, respectively, which amends Sections 88-107 and 88-122 of the Hawaii Revised Statutes related to assumptions used in determining the actuarial valuation. The amounts as of June 30, 1999 and 1998 have been revised to be in compliance with these Acts and a related lawsuit settlement agreement.

SCHEDULES OF EMPLOYER CONTRIBUTION  
(in thousands)

Year ended June 30,	Annual required contribution	Actual contribution	Percentage contributed
2003	\$190,586	\$190,586	100.0%
2002	\$167,459	\$167,459	100.0%
2001	\$164,397	\$ 8,132	4.9%
2000	\$172,255	\$ 22,392	13.0%
1999	\$185,387	\$154,470	83.3%
1998	\$307,680	\$310,627	101.0%

---

 NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

June 30, 2003

The information presented in the required supplementary schedules was determined as part of the annual actuarial valuation. Additional information as of the latest actuarial valuation follows.

Valuation date	June 30, 2003
Actuarial cost method	Entry age normal
Amortization method	Level dollar, closed
Remaining amortization period (years)	26
Asset valuation method	4-year smoothed market
Actuarial assumptions:	
Investment rate of return (set by statute)*	8.0%
Projected salary increases (set by statute)*	4.0%
*Includes inflation at 4.0%	
Cost of living adjustments	2.5% (not compounded)

In 2002, the Legislature of the State of Hawaii approved a bill changing the remaining amortization period to be fully amortized by June 30, 2029. Prior to that, the unfunded actuarial accrued liability was to be fully amortized by 2016.

The annual required contribution for the year ended June 30, 2003 was determined as part of an actuarial valuation dated June 30, 2000 that is consistent with the current actuarial valuation.



## SUPPLEMENTARY INFORMATION

## CHANGES IN NET ASSETS HELD IN TRUST FOR PENSION BENEFITS

Year ended June 30,

	2003			Total
	Pension Accumulation Fund	Annuity Savings Fund	Expense Fund	
<b>Additions</b>				
Appropriations and contributions:				
Employers	\$190,586,276	\$ -	\$ -	\$190,586,276
Members	-	57,214,521	-	57,214,521
Net investment income (loss)	146,140,751	-	-	146,140,751
<b>Total additions</b>	<b>336,727,027</b>	<b>57,214,521</b>	<b>-</b>	<b>393,941,548</b>
<b>Deductions</b>				
Benefit payments	569,235,512	-	-	569,235,512
Refund option payments	33,569,568	-	-	33,569,568
Refunds of member contributions	-	2,605,602	-	2,605,602
Refunds paid to State and counties	2,800	-	-	2,800
Administrative expenses	-	-	6,780,824	6,780,824
<b>Total deductions</b>	<b>602,807,880</b>	<b>2,605,602</b>	<b>6,780,824</b>	<b>612,194,306</b>
<b>Other changes in net assets held in trust for pension benefits:</b>				
Transfer due to retirement of members	102,302,062	(102,302,062)	-	-
Transfer of interest allocation	(38,949,337)	38,949,337	-	-
Transfer to pay administrative expenses	(7,062,765)	-	7,062,765	-
Return of unrequired funds due to savings in administrative expenses	1,404,366	-	(1,404,366)	-
	<u>57,694,326</u>	<u>(63,352,725)</u>	<u>5,658,399</u>	<u>-</u>
<b>NET (DECREASE) INCREASE</b>	<b>(208,386,527)</b>	<b>(8,743,806)</b>	<b>(1,122,425)</b>	<b>(218,252,758)</b>
<b>Net assets held in trust for pension benefits:</b>				
Beginning of year	<u>6,977,024,613</u>	<u>915,247,830</u>	<u>13,180,198</u>	<u>7,905,452,641</u>
End of year	<u>\$6,768,638,086</u>	<u>\$906,504,024</u>	<u>\$12,057,773</u>	<u>\$7,687,199,883</u>

2002			
Pension Accumulation Fund	Annuity Savings Fund	Expense Fund	Total
\$167,458,900	\$ -	\$ -	\$167,458,900
-	55,451,216	-	55,451,216
(503,995,093)	-	-	(503,995,093)
(336,536,193)	55,451,216	-	(281,084,977)
530,381,277	-	-	530,381,277
35,178,028	-	-	35,178,028
-	3,244,334	-	3,244,334
-	-	5,754,832	5,754,832
565,559,305	3,244,334	5,754,832	574,558,471
160,604,169	(160,604,169)	-	-
(38,894,423)	38,894,423	-	-
(5,790,306)	-	5,790,306	-
-	-	-	-
115,919,440	(121,709,746)	5,790,306	-
(786,176,058)	(69,502,864)	35,474	(855,643,448)
7,763,200,671	984,750,694	13,144,724	8,761,096,089
\$6,977,024,613	\$915,247,830	\$13,180,198	\$7,905,452,641

SOCIAL SECURITY CONTRIBUTION FUND  
STATEMENTS OF CHANGES IN ASSETS AND LIABILITIES  
Year ended June 30,

	2003				2002			
	Beginning balance	Additions	Deductions	Ending balance	Beginning balance	Additions	Deductions	Ending balance
<b>ASSETS</b>								
Cash	\$ 916,681	\$ 149,918,186	\$ 150,834,608	\$ 259	\$ 444,061	\$ 132,399,250	\$ 131,926,630	\$ 916,681
Short-term investments	3,015,875	9,459,864	11,092,150	1,383,589	15,140,202	13,815,753	25,940,080	3,015,875
Employer appropriations receivable	13,573,483	146,739,487	150,834,681	9,478,289	2,763,762	142,292,458	131,482,737	13,573,483
<b>Total assets</b>	<b>\$ 17,506,039</b>	<b>\$ 306,117,537</b>	<b>\$ 312,761,439</b>	<b>\$ 10,862,137</b>	<b>\$ 18,348,025</b>	<b>\$ 288,507,461</b>	<b>\$ 289,349,447</b>	<b>\$ 17,506,039</b>
<b>LIABILITIES</b>								
Payable to Internal Revenue Service	\$ 6,988,385	\$ 153,105,607	\$ 153,525,327	\$ 6,568,665	\$ 5,535,531	\$ 144,922,399	\$ 143,469,545	\$ 6,988,385
Due to employers	10,517,654	146,882,436	153,106,618	4,293,472	12,812,494	142,628,965	144,923,805	10,517,654
<b>Total liabilities</b>	<b>\$ 17,506,039</b>	<b>\$ 299,988,043</b>	<b>\$ 306,631,945</b>	<b>\$ 10,862,137</b>	<b>\$ 18,348,025</b>	<b>\$ 287,551,364</b>	<b>\$ 288,393,350</b>	<b>\$ 17,506,039</b>

## SUPPLEMENTARY INFORMATION

## ADMINISTRATIVE EXPENSES

Year ended June 30,

	<u>2003</u>	<u>2002</u>
Personnel services		
Salaries and wages	\$2,946,683	\$2,698,952
Fringe benefits	834,036	506,463
Net change in unused vacation credits	26,687	89,214
Total personnel services	<u>3,807,406</u>	<u>3,294,629</u>
Professional services		
Actuarial	98,378	96,667
Auditing and tax consulting	133,043	122,136
Medical	189,942	133,249
Disability hearing expenses	18,331	17,195
Legal services	814,383	106,425
Other services	25,604	192,996
Total professional services	<u>1,279,681</u>	<u>668,668</u>
Communication		
Printing and binding	15,541	20,363
Telephone	26,953	26,225
Postage	123,317	113,708
Travel	23,398	21,665
Total communication	<u>189,209</u>	<u>181,961</u>
Rentals		
Rental of equipment	25,709	16,276
Rental of premises	7,730	7,986
Total rentals	<u>33,439</u>	<u>24,262</u>
Other		
Repairs and maintenance	301,885	185,327
Stationery and office supplies	43,962	39,137
Equipment	16,030	29,260
Computer and office automation systems	445,278	481,700
Microfilm	10,280	6,767
Armored car service	6,673	8,559
Miscellaneous	40,390	62,109
Total other	<u>864,498</u>	<u>812,859</u>
Depreciation	<u>606,591</u>	<u>772,453</u>
	<u>\$6,780,824</u>	<u>\$5,754,832</u>

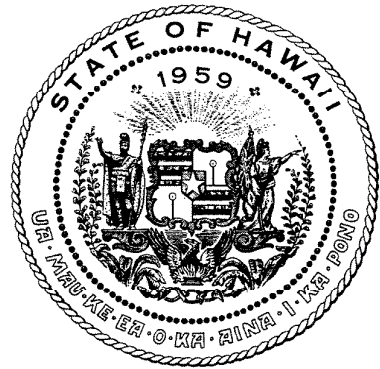
## SUPPLEMENTARY INFORMATION

## INVESTMENT EXPENSES

Year ended June 30,

	<u>2003</u>	<u>2002</u>
Investment expenses		
Investment manager/advisor fees	\$22,304,820	\$23,188,308
Bank custodian fees	351,924	244,075
Other investment expenses	<u>1,327,338</u>	<u>84,335</u>
Total investment expenses	23,984,082	23,516,718
Securities lending expenses		
Borrower rebates	5,120,608	11,056,109
Management fees	<u>409,795</u>	<u>664,436</u>
Total securities lending expenses	<u>5,530,403</u>	<u>11,720,545</u>
	<u>\$29,514,485</u>	<u>\$35,237,263</u>

**EMPLOYEES'  
RETIREMENT SYSTEM  
OF THE  
STATE OF HAWAII**



**INVESTMENT  
SECTION**

*This page is intentionally left blank.*

LINDA LINGLE  
GOVERNOR



**STATE OF HAWAII**  
EMPLOYEES' RETIREMENT SYSTEM

December 19, 2003

Dear Members:

It is once again my honor and privilege to present the Investment Section of the Comprehensive Annual Financial Report for the fiscal year ending June 30, 2003. The following are a few ERS investment highlights of the past fiscal year:

- As of June 30, 2003, ERS was one of the 150 largest defined benefit plans in the US with total assets of just under \$8.0 billion.
- The fund returned 2.97% for the fiscal year 2003, underperforming the benchmark return of 4.61% by 1.64%.
- Over the last three years the fund returned -3.21%, outperforming the composite benchmark return of -3.69% by 0.48% per year. In real dollars the 0.48% of outperformance each year has produced an extra \$143 million for the fund that would not have been achieved had the assets been invested passively in index funds.
- As part of our standard practices, we are conducting a search for a firm to provide investment consulting services and a decision is expected in 2003.

The spring of 2000 saw the end of the longest U.S. economic expansion in modern day history and with that the end of an escalating equity market. In the ensuing two years, equities encountered the worst bear market in the past 60 years. Accompanying the punishing equity market was an economic recession which was declared in March 2001. While the economic recession was "officially" over in November 2001, the equity market continued in a downward fashion until November 9, 2002. Since that date the equity markets have staged a very impressive rebound.

Investing is an up and down business. It is important to always maintain focus and discipline. At the ERS, we base our decisions on a few guiding principles fundamental to prudent investment management.

City Financial Tower • 201 Merchant Street, Suite 1400 • Honolulu, Hawaii 96813-2980  
Telephone (808) 586-1660 • Fax (808) 586-1677 • <http://www2.state.hi.us/ers/>



- Diversify among asset classes that do not perform similarly at the same time. Diversification among asset classes, including investment size and style, should dampen overall portfolio volatility and improve performance over the long run. ERS has a diversified investment portfolio that ranges from conventional stock and bond investments to real estate and venture capital.
- Design and implement a procedure to systematically rebalance the portfolio back to target allocations. It seems against human nature to “sell the good ones” and “buy the bad ones.” However, by systematically selling better performing assets and using the proceeds to buy more of the underperforming assets you are “selling high and buying low.”
- Investing is a process that requires discipline. Through our disciplined investment process ERS has developed a strategy to invest the assets of our members and provide for their retirement benefits. As with any strategy, if you stick with it, there will be periods of underperformance in the short-term, however, given the long time horizon of the ERS we are not overly concerned about these short-term periods.

Recent allegations of misconduct against individuals and firms in the investment management business have called into question the honesty, integrity and accountability of all involved in the industry. The ramifications of these allegations may include changes in governance structures, increased enforcement of rules and regulations, transparency and increased disclosure by the firms and individuals involved in investment management. There will be more fallout in the short-term but the investment management business should emerge stronger from this experience.

We are committed to the interests of our members. We will continue to manage the assets of ERS in a prudent fashion, seeking reasonable market rates of return while attempting to avoid unreasonable risk. While we cannot guarantee future results, our disciplined investment process will allow us to maintain consistent performance for the long run.

Aloha pumehana,



T. Kimo Blaisdell  
Chief Investment Officer

---

# CALLAN ASSOCIATES<sub>INC.</sub>

December 31, 2003

San Francisco  
New Jersey  
Chicago  
Atlanta  
Denver

Board of Trustees  
State of Hawaii Employees' Retirement System  
City Financial Tower  
201 Merchant Street, Suite 1400  
Honolulu, HI 96813-2980

Dear Trustees:

Enclosed is our report on investment activity for the Hawaii Employees' Retirement System for periods ended June 30, 2003, as requested by the Government Financial Officers' Association (GFOA).

## **Hawaii ERS-Total Fund Performance**

The total assets of the Retirement System were just under \$7.8 billion as of June 30, 2003, a decrease of roughly \$200 million for the fiscal year. The decrease in assets was primarily due to benefit payments, however, as there were positive investment gains for the year. The investment return for the total fund expressed as a time-weighted total rate of return was +2.97% for the 2003 fiscal year, compared to the benchmark's return of +4.61%. For the three-year period ending June 30, 2003 the total fund returned -3.21% per annum, ahead of the benchmark's -3.69%, and for the trailing five-year period the total fund posted a return of 1.49% per annum versus the benchmark's 1.98%.

## **Asset Class Performance**

Domestic equity returned -0.39% for the fiscal year, underperforming the S&P 500 Index's +0.25% and the Callan Domestic Equity Database median of -0.17%. Domestic fixed-income gained +11.12% for the year, beating the Lehman Brothers Aggregate return of +10.40% and the Callan Fixed-Income Database median return of +10.52%. International equity returned -7.90% for the 2003 fiscal year versus the MSCI EAFE Index return of -6.46%, whereas international fixed-income returned +20.43% versus the Citigroup Non-US Government Bond Index gain of +17.90%. Real Estate gained +6.89% for the year ending June 30, 2003 versus the NCREIF Total Index gain of 7.64%. Alternative investments were a negative contributor to performance, returning -11.26% for the fiscal year.

71 STEVENSON STREET, SUITE 1300, SAN FRANCISCO, CALIFORNIA 94105 Telephone 415.974.5060 Fax 415.512.0524

State of Hawaii Employees' Retirement System  
December 31, 2003  
Page 2

### **Market Conditions**

The fiscal year began with worst quarter for equity markets since the crash of 1987. Threats of war and terrorism continued to weigh heavily on investors' minds, along with concerns over the economy and corporate earnings. The beginning of the fiscal year also found capital markets reeling from a litany of corporate scandals which had occurred in previous quarters. Jittery investors continued to seek out bonds as a security blanket.

Despite a brief rally in October and November of 2002, equity markets continued to founder amidst a very real threat of war, numerous geopolitical risks abroad, and fear of a double dip recession. The turning point for the markets occurred on March 12, 2003, when the United States decided to go to war in Iraq. Until this point, the economy and the markets seemed to be ruled by uncertainty. Once this uncertainty was resolved, despite the new presence of armed conflict in the Middle East, both seemed to rally.

Generally speaking, the market tended to be led by lower quality or no-earnings stocks rebounding from several years of poor results. Growth stocks outperformed value stocks for the first time in many periods. Small cap stocks and large cap stocks were roughly even for the fiscal year.

The domestic bond market benefited from another rocky fiscal year for equities. Due to the lack of a serious inflation threat, further Federal Reserve interest rate cuts, and poor performance in the equity markets, the domestic fixed income market generated solid returns for the year ended June 30, 2003. Corporate bonds outperformed government secured treasury and agency bonds for the year. Many of the corporate backed securities downgraded in the second and third quarter of 2002 bounced back.

International equities underperformed US equities for the year ended June 30, 2003 as non-US stocks were actually in negative territory. This trend has reversed course since March 31, 2003 with international equities now well ahead of their domestic counterparts for the calendar year. International bonds benefited from the dollar's decline, outperforming the US bond market with double digit returns.

Fiscal year 2004 has been very strong so far, with positive equity market results in the third and fourth quarters. Economic indicators are also improving. Throughout the difficult market conditions of the past three years, with its constant review and oversight, the Board continues to position the Retirement System for competitive performance consistent with its objectives.

  
Callan Associates Inc.

**Report on Investment Activity for the  
Employees' Retirement System of the State of Hawaii**

Prepared by Callan Associates Inc.  
December 2003

**Outline of Investment Policies**

The primary goal of the Plan is the preservation of capital. The Board of Trustees seeks preservation of capital with a consistent, positive return for the Fund. Although pure speculation is to be avoided, the Board appreciates the fact that an above average return is associated with a certain degree of risk. Risk to be assumed must be considered appropriate for the return anticipated and consistent with the total diversification of the Fund.

*Expected Annualized Return and Risk*

Based on 2003 capital market projections for 5 years, the target allocation is expected to achieve an average annualized return of 7.9% (5.3% real return with expected inflation of 2.6%). The annual nominal return is expected to fall within a range of -4.8% and 20.6% two-thirds of the time.

*Long-range Asset Allocation Target*

The ERS only invests in the following asset classes:

	<u>Lower Limit</u>	<u>Strategic Allocation</u>	<u>Upper Limit</u>
Domestic Equity	29%	<b>32%</b>	35%
Small/Mid Cap Equity	7%	<b>9%</b>	11%
International Equity	15%	<b>17%</b>	19%
Domestic Fixed-Income	19%	<b>21%</b>	23%
International Fixed Income	5%	<b>7%</b>	9%
Mortgages	NA	<b>0% ***</b>	NA
Equity Real Estate	0%	<b>9% *</b>	9%
Alternative Investments	0%	<b>5% **</b>	5%

\* The real estate target will be the percentage actually invested up to 9% of the total fund. Changes in the real estate target will be offset by an equal percentage change in the large cap domestic equity target.

\*\* The alternatives target will be the percentage actually invested up to 5% of the total fund. Changes in the alternatives target will be offset by an equal percentage change in the large cap domestic equity target.

\*\* The mortgage target will be the percentage of the total fund actually invested. Changes in the mortgage target will be offset by an equal change in the domestic bond target.

Adjustments in the above targets take place annually in conjunction with the annual asset allocation review. The target is evaluated on the basis of assets designated to each asset class by the Board, rather than on a current invested position. The target is to be pursued primarily by cash flow on a long-term basis and be revised if significant changes occur within the economic and/or capital market environment according to the rebalancing guidelines. The target is to be reviewed annually for reasonableness relative to significant economic and market changes. A formal asset allocation/liability study is conducted at least every three years to verify or amend the targets. The last formal asset allocation/liability study was completed in the first half of 2002. At that time, the Board chose to maintain the current strategic asset allocation implemented July 1, 2000. The target was again reviewed in early 2003. A full asset/liability study will next take place in early 2005.

#### *Portfolio Evaluation Benchmark*

To monitor the total fund result, a special target index has been constructed to measure the fund's performance based on the current target mix. This serves as a minimum performance objective for the Fund. The target is adjusted quarterly to reflect the assets actually invested in real estate and alternative investments. The target index objective is included in all quarterly evaluation reports of the ERS. The composition of the index as of June 30, 2003 is:

- 35% of the Standard & Poor's 500 Stock Index
- 4.5% of the S&P Mid Cap 400
- 4.5% of the Russell 2000
- 21% of the Lehman Brothers Aggregate Bond Index
- 17% of the MSCI EAFE Index
- 7% of the Citigroup Non-U.S. World Government Bond Index
- 7.8% of the NCREIF Total Index
- 3.2% of the Post Venture Cap Index

Individual investment managers are not to be measured against this total fund objective. However, it is expected that the sum of their efforts exceeds the objective over time.

#### *Manager Evaluation*

Individual domestic and international equity and bond managers are measured against relevant indexes and their respective peer groups of managers. Market indices and peer group benchmarks are assigned to each manager and are intended as a guide for the investment manager to understand the risk/reward posture of their portfolio. Real Estate managers are measured against the median performance of the Callan Associates Real Estate database and the NCREIF Total Index. Managers have full discretion to manage the risk posture of their portfolios relative to their designated market index and may, with conviction and appropriate expertise, execute security strategies not reflected by their market index as long as they conform to the investment guidelines and the laws of the State of Hawaii.

*Investment Practices*

The full Investment Policy Statement describes in detail acceptable investment practices, manager reporting requirements, manager performance guidelines, the distribution of brokerage commissions, and securities lending guidelines. The IPS was revised in August 2003.

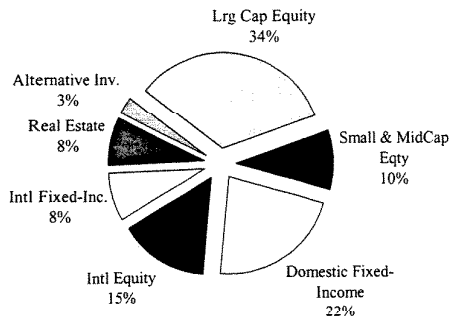
All rates of return are calculated using methodologies that are generally accepted by the Association for Investment Management and Research (AIMR). All domestic equity manager returns are daily, time-weighted rates of return based on custodial data. International equity, domestic fixed-income, and global fixed-income returns are monthly, time-weighted returns. Real estate returns are calculated using statements received directly from the manager. This ensures that the performance is based on accurate cash flows and appraisal values.

**Investment Results**

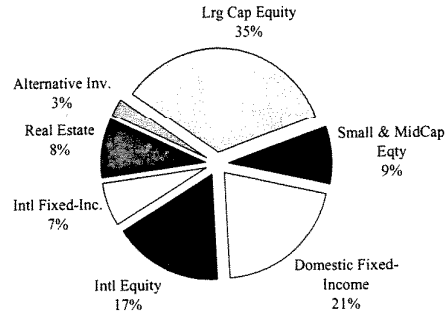
	Year Ended June 30,					Three Years	Five Years
	2003	2002	2001	2000	1999	Ended 6/2003	Ended 6/2003
<b>Domestic Equity</b>	<b>(0.39%)</b>	<b>(14.57%)</b>	<b>(10.11%)</b>	<b>2.26%</b>	<b>15.98%</b>	<b>(8.55%)</b>	<b>(1.93%)</b>
Standard & Poor's 500	0.25%	(17.99%)	(14.83%)	7.25%	22.76%	(11.20%)	(1.61%)
CAI Total Domestic Equity DB	(0.17%)	(13.98%)	(6.45%)	11.74%	14.96%	(5.56%)	1.96%
<b>Domestic Fixed Income</b>	<b>11.12%</b>	<b>8.82%</b>	<b>11.18%</b>	<b>4.94%</b>	<b>3.26%</b>	<b>10.37%</b>	<b>7.81%</b>
Lehman Aggregate Index	10.40%	8.63%	11.22%	4.57%	3.15%	10.08%	7.54%
CAI Fixed-Income DB	10.52%	7.97%	11.04%	4.58%	3.52%	9.77%	7.41%
<b>International Equity</b>	<b>(7.90%)</b>	<b>(12.25%)</b>	<b>(23.27%)</b>	<b>23.31%</b>	<b>13.80%</b>	<b>(14.73%)</b>	<b>(2.74%)</b>
MSCI EAFE Index	(6.46%)	(9.49%)	(23.60%)	17.15%	7.62%	(13.52%)	(4.00%)
CAI Non-U.S. Equity DB	(5.91%)	(7.76%)	(23.46%)	24.15%	7.78%	(12.34%)	(0.79%)
<b>International Fixed-Income</b>	<b>20.43%</b>	<b>16.84%</b>	<b>(4.34%)</b>	<b>0.96%</b>	<b>1.12%</b>	<b>10.41%</b>	<b>6.56%</b>
Non-U.S. Govt Bond Idx	17.90%	15.73%	(7.43%)	2.42%	4.87%	8.10%	6.29%
CAI Non-U.S. Fixed DB	18.24%	15.65%	(6.17%)	1.35%	5.03%	8.75%	6.47%
<b>Real Estate</b>	<b>6.89%</b>	<b>3.09%</b>	<b>5.65%</b>	<b>9.93%</b>	<b>7.60%</b>	<b>5.20%</b>	<b>6.61%</b>
NCREIF Classic Index	7.64%	5.50%	11.57%	11.62%	12.79%	8.21%	9.79%
CAI Real Estate Funds	7.41%	5.72%	11.15%	10.10%	10.88%	8.47%	9.07%
<b>Alternative Investments</b>	<b>(11.26%)</b>	<b>(13.40%)</b>	<b>7.68%</b>	<b>44.34%</b>	<b>(10.74%)</b>	<b>(6.12%)</b>	<b>1.29%</b>
Post Venture Cap Index	19.79%	(44.29%)	(48.23%)	40.35%	48.85%	(29.83%)	(6.31%)
<b>Total Fund</b>	<b>2.97%</b>	<b>(5.52%)</b>	<b>(6.80%)</b>	<b>7.38%</b>	<b>10.59%</b>	<b>(3.21%)</b>	<b>1.49%</b>
Composite Benchmark	4.61%	(6.46%)	(8.71%)	8.82%	12.34%	(3.69%)	1.78%

Asset Allocation as of June 30, 2003

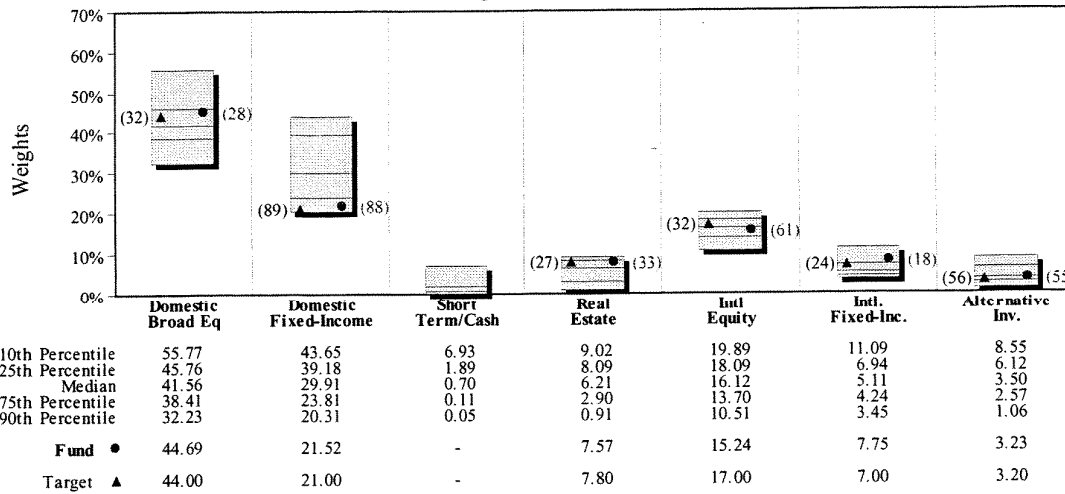
Actual Asset Allocation



Target Asset Allocation



Asset Class Weights vs CAI Public Fund - Large (>1B)



The Target Benchmark as of June 30, 2003 was 35% S&P 500, 4.5% S&P Mid Cap 400, 4.5% Russell 2000, 21% Lehman Aggregate, 7.8% NCREIF Total Index, 3.2% Post Venture Capital Index, 17% MSCI EAFE Index and 7% Citigroup Non-US Gov't Bond Index. Monies to be allocated to long-term real estate and alternatives are considered to be "parked" in domestic equities until drawn down.

---

**INVESTMENT FIRMS**

**CUSTODIAL BANK**  
State Street Bank & Trust Company

**INVESTMENT ADVISOR**  
Callan Associates Inc.

**INVESTMENT MANAGERS****U.S. EQUITIES**

Alliance Capital Management Corporation  
Barrow, Hanley, Mewhinney & Strauss, Inc.  
Bishop Street Capital Management  
CM Bidwell Investment Advisory  
Delaware Investment Advisers, LLC  
Denver Investment Advisers, LLC  
Independence Investment Associates, Inc.  
Mellon Capital Management Corporation  
Oppenheimer Capital Corporation  
Pacific Century Trust  
Jennison Associates  
Putnam Investments  
TCW Asset Management Co.  
T. Rowe Price

**REAL ESTATE**

Clarion Partners  
C.B. Richard Ellis Investors, LLC  
Heitman Real Estate Services Group  
Invesco Realty Advisors

**INTERNATIONAL EQUITIES**

Bank of Ireland Asset Management (U.S.) Ltd.  
Capital International, Inc.  
Schroder Investment Management North America, Inc.  
State Street Global Advisors

**U.S. FIXED INCOME**

Bradford and Marzec, Inc.  
CIC/HCM Capital Management, Inc.  
Pacific Income Advisers, Inc.  
Pacific Investment Management Company

**ALTERNATIVE INVESTMENTS**

Abbott Capital Management, LLC  
Hancock Timber Resource Group

**INTERNATIONAL FIXED INCOME**

Oechsle International Advisors, L.P.  
Pacific Investment Management Company

**COMMISSION RECAPTURE BROKERS**

Donaldson & Co., Incorporated  
Rochdale Securities Corporation

Lynch, Jones & Ryan/Instinet  
SunTrust Robinson Humphrey



**List of Assets Directly Held (by fair value)\***

as of June 30, 2003 (excludes investments in pooled vehicles)

\* A complete list of holdings is available for review upon request.

<u>Rank</u>	<u>Par / Shares</u>	<u>Security</u>	<u>Coupon</u>	<u>Due</u>	<u>Standard &amp; Poors</u>	<u>Fair Value</u>
<b>Domestic Fixed Income</b>						
1	55,000,000	Federal National Mortg (TBAAug30SinFam)	6.000%	12/31/2099	AAA	\$57,197,813
2	36,203,000	Federal National Mortg (TBAJul15SinFam)	5.000%	12/31/2099	AAA	37,424,290
3	33,182,000	United States Treasury Bonds	5.375%	2/15/2031	AAA	37,360,858
4	23,206,664	United States Treasury Note	3.000%	7/15/2012	AAA	25,570,843
5	15,400,000	United States Treasury Bonds	7.500%	11/15/2016	AAA	20,917,530
6	19,049,862	Federal National Mortg (REMIC)	6.390%	5/25/2036	AAA	20,707,312
7	20,203,000	Federal National Mortg Discount Notes	0.010%	7/17/2003	AAA	20,195,086
8	16,812,150	United States Treasury Note	3.875%	1/15/2009	AAA	19,249,912
9	18,714,297	Residential Funding Mtg Sec I	6.750%	9/25/2028	AAA	18,750,294
10	16,578,000	Federal Home Loan Mortg Corp	6.000%	12/31/2099	AAA	17,184,133
<b>International Fixed Income</b>						
1	26,660,000	Republic of Italy	4.500%	5/01/2009	AA	\$ 32,696,819
2	14,100,000	Federal Republic of Germany	6.250%	1/04/2024	AAA	19,722,193
3	15,284,000	Republic of Italy	4.250%	11/01/2009	AA	18,473,910
4	12,600,000	Federal Republic of Germany	6.000%	11/01/2009	AAA	15,720,689
5	11,480,000	Kingdom of Spain	5.150%	7/30/2009	AA+	14,522,095
6	11,300,000	Federal Republic of Germany	5.250%	1/04/2011	AAA	14,438,849
7	8,382,000	Kreditanstalt fur Wiederaufbau (Germany)	4.750%	12/07/2010	AAA	14,262,399
8	18,828,000	Canada Housing Tranche No 1	4.400%	3/15/2008	AAA	14,084,158
9	11,944,000	Kreditanstalt fur Wiederaufbau (Germany)	3.500%	11/15/2005	AAA	14,073,198
10	11,518,000	Republic of Italy	4.500%	3/01/2007	AA	14,052,335
<b>Domestic Equities</b>						
1	1,242,202	Citigroup Inc				\$ 53,166,245
2	1,353,014	Pfizer Inc.				46,205,428
3	1,350,198	Microsoft Corp				34,578,570
4	1,001,905	General Electric Co				28,734,635
5	348,357	Bank America Corp				27,350,654
6	711,682	JP Morgan Chase + Co				24,325,291
7	713,400	Occidental Pete Corp				23,934,570
8	1,379,228	Cisco Systems Inc				23,019,315
9	317,382	ChevronTexaco Corp				22,914,980
10	636,770	Allstate Corp				22,700,851
<b>International Equities</b>						
1	129,466	Total SA, Euro10 Series B				\$ 19,565,264
2	221,700	XL Capital Ltd				18,401,100
3	9,243,183	Vodafone Group Ord USD0.10				18,074,362
4	83,793	Nestle SA - CHF1 (Regd)				17,289,980
5	765,045	Glaxosmithkline - Ord GBP0.25				15,257,984
6	348,060	BP PLC - Ord USD0.25				14,625,481
7	183,302	Roche Holding Genuscheine NPV				14,378,086
8	256,467	UBS AG - CHF.80 (Regd)				14,266,575
9	1,917,360	Barclays - Ord GBP0.25				14,237,681
10	813,308	ING Group NV - CVA Euro .24				14,130,842

(1) Rating from Moody's, if not available by Standard &amp; Poor's (S&amp;P)

**Investments Summary***(Dollar values expressed in thousands)*

	<u>Fair Value as of June 30, 2003</u>	<u>Percentage</u>	<u>Fair Value as of June 30, 2002</u>	<u>Percentage</u>
Equity securities				
Common stock	\$ 3,155,638	42.1%	\$ 2,969,750	38.0%
Index funds	1,178,688	15.7%	1,089,154	13.9%
Pooled and others	201,113	2.7%	393,401	5.0%
	<u>4,535,439</u>	<u>60.5%</u>	<u>4,452,305</u>	<u>56.9%</u>
Fixed income securities				
Mortgage-backed securities	595,301	7.9%	769,512	9.8%
U.S. Government bonds	274,621	3.7%	191,346	2.4%
Foreign bonds	616,089	8.2%	747,631	9.6%
U.S. Corporate bonds	491,493	6.5%	519,287	6.6%
Asset backed securities	89,846	1.2%	155,122	2.0%
Pooled and others	27,269	0.4%	43,968	0.6%
	<u>2,094,619</u>	<u>27.9%</u>	<u>2,426,866</u>	<u>31.0%</u>
Others				
Real estate equities	587,477	7.8%	619,733	7.9%
Real estate mortgages	37,142	0.5%	89,649	1.1%
Alternative investments	249,609	3.3%	238,545	3.1%
	<u>874,226</u>	<u>11.6%</u>	<u>947,927</u>	<u>12.1%</u>
Total, investments at fair value	<u>\$ 7,504,286</u>	<u>100.0%</u>	<u>\$ 7,827,098</u>	<u>100.0%</u>

**Schedule of Investment Fees***by Asset Class Allocation**(Dollar values expressed in thousands)*

	<u>Fair value as of June 30, 2003</u>	<u>Total FY 2003 Investment Fees</u>	<u>Basis Points</u>
Equities			
U.S. equities	\$ 3,462,669		
International equities	1,180,777		
	<u>4,643,446</u>	<u>\$ 11,333</u>	
Fixed Income			
U.S. bonds	1,577,121		
International bonds	600,529		
	<u>2,177,650</u>	<u>3,558</u>	
Other Asset Allocations			
Real estate	587,477		
Real estate mortgages	37,142		
Alternative investments	249,609		
	<u>874,228</u>	<u>6,853</u>	
Other Investment Services			
Custodian fees		352	
Investment consultant fees		561	
Total	<u>\$ 7,695,324</u>	<u>\$ 22,657</u>	<u>29 bp</u>

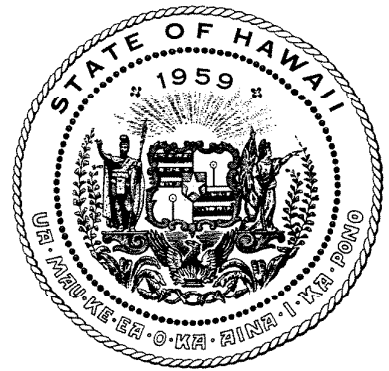
## Schedule of Broker Commissions

The Employees' Retirement System participates in a Commission Recapture Program with four brokerage firms for equity trades, which are listed in the Investment Professionals section. Domestic and international investment managers are required to direct at least 35%, of all brokerage transactions to participating brokers. Commissions charged per share are based on the investment manager's normal rate schedule. All commissions recaptured are used exclusively by the ERS for the benefit of its members and beneficiaries. ERS does not guarantee participating brokers any minimums, required volumes or fees. During the fiscal year ended June 30, 2003 the ERS recaptured \$656,158 in commissions.

The following is a list of brokers who received \$40,000 or more in commissions during Fiscal Year 2003. A complete list of all commissions is available for review upon request.

Brokerage Firms	Shares Traded	Dollar Volume of Trades	Commission	
			Dollar Amount	Per Share
Morgan Stanley Dean Witter	13,956,981	\$ 244,309,670	\$ 354,148	\$0.025
Merrill Lynch Pierce Fenner Smith	11,322,090	186,227,366	332,408	0.029
Credit Suisse First Boston	9,071,767	154,398,167	276,416	0.030
Goldman Sachs and Co	12,511,987	150,990,209	272,606	0.022
Broadcourt Capital	5,119,700	148,262,867	265,415	0.052
Donaldson & Co	5,109,896	150,106,383	250,831	0.049
Salomon Smith Barney	5,951,136	133,864,593	248,629	0.042
Bear Stearns	4,487,235	114,433,936	221,579	0.049
JP Morgan	5,297,448	113,315,438	202,043	0.038
Deutsche Bank Securities	7,622,111	151,404,952	196,398	0.026
UBS AG Warburg Paine Webber	8,610,358	116,158,254	175,419	0.020
Lehman Brothers	3,839,157	91,305,130	158,176	0.041
Suntrust Capital Markets	3,239,966	88,310,822	151,515	0.047
Rochdale Securities Corporation	3,011,088	91,665,652	149,480	0.050
Citigroup	3,313,751	61,983,963	105,083	0.032
Lynch, Jones & Ryan	2,059,910	56,971,578	102,896	0.050
Bank America	2,859,482	43,818,579	80,699	0.028
Sanford C Bernstein	1,695,576	40,401,729	80,633	0.048
AG Edwards	1,647,908	44,943,926	80,580	0.049
Citation Group	1,294,160	31,148,543	64,708	0.050
Jefferies & Company	1,925,470	29,529,913	61,937	0.032
Cantor Fitzgerald	1,240,467	22,847,522	52,892	0.043
Salomon Brothers	4,236,093	33,224,066	50,075	0.012
First Union Capital Markets	989,231	22,558,359	42,339	0.043
Adams Harkness + Hill	1,028,200	10,515,587	41,470	0.040
Others (includes 148 firms)	37,251,291	649,486,136	1,056,522	0.028
Commissioned equity trades	158,692,459	\$2,982,183,340	\$5,074,897	\$0.032
Less commissions recaptured			(656,158)	
Trades at net commission	898,905,179	\$6,062,460,307	\$4,418,739	\$0.027

**EMPLOYEES'  
RETIREMENT SYSTEM  
OF THE  
STATE OF HAWAII**



**Actuarial  
Section**

*This page is intentionally left blank.*

**GABRIEL, ROEDER, SMITH & COMPANY**

Consultants &amp; Actuaries

5605 N. MacArthur Blvd. • Suite 870 • Irving, Texas 75038-2631 • 469-524-0000 • fax 469-524-0003

September 22, 2003

Board of Trustees  
Employees' Retirement System of  
State of Hawaii  
City Financial Tower  
201 Merchant St., Ste. 1400  
Honolulu, HI 96813-2980

Dear Trustees:

**Subject: Actuarial Valuation as of June 30, 2003**

We certify that the information contained in the 2003 actuarial valuation report is accurate and fairly presents the actuarial position of the Employees' Retirement System (ERS) of the State of Hawaii (the System) as of June 30, 2003.

All calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, the results presented comply with the requirements of the Hawaii statutes and, where applicable, the Internal Revenue Code, ERISA, and the Statements of the Governmental Accounting Standards Board. The undersigned are independent actuaries. One or more of them are an Enrolled Actuary, a Member of the American Academy of Actuaries, and/or are experienced in performing valuations for large public retirement systems.

***Actuarial valuations***

The primary purpose of the valuation report is to determine the required employer contribution, to describe the current financial condition of the System, and to analyze changes in the System's condition. In addition, the report provides information required by ERS in connection with Governmental Accounting Standards Board Statement No. 25 (GASB No. 25), and it provides various summaries of the data.

Valuations are prepared annually, as of June 30th of each year, the last day of the System's plan year and the System's fiscal year.

**GABRIEL, ROEDER, SMITH & COMPANY**

Trustees  
September 22, 2003  
Page 2

### ***Financing objectives***

The employer contribution amounts are calculated by the actuarial valuation, and these amounts are applicable for the fiscal year beginning two years after the valuation date, i.e., beginning July 1, 2005. The employer contributions, when combined with the contributions made by members, are intended to provide for the normal cost and to amortize the Unfunded Actuarial Accrued Liability (UAAL) over a closed period. Act 147/2002 amended the statute to liquidate the unfunded accrued liability over a longer period of time. It is now a closed period ending June 30, 2029.

### ***Progress toward realization of financing objectives***

Based on this actuarial valuation as of June 30, 2003, the employer contribution is \$444,926,892 for Fiscal Year 2005/2006. This amount includes the normal cost and amortization of the UAAL over the remaining 26 years from June 30, 2003. It includes the impact of the significant growth in active member covered payroll, which increased 5.8%, from \$2.57 billion to \$2.72 billion. It also includes the effect of a third consecutive year of poor investment markets.

Employees and employers contributed the recommended amount for the 2002/2003 fiscal year. It is assumed that they will continue to contribute the recommended contributions as determined by the actuarial valuations. Therefore, all financing objectives are being realized.

The contribution requirement for FY 2005/2006 reflects the two-year lag between the valuation date and the beginning of the fiscal year to which that contribution applies. It assumes the employers' contributions for FY 2003/2004 are \$235.7 million and are \$328.7 million for FY 2004/2005. If these contributions are reduced, the \$444.9 million contribution for FY 2005/2006 will need to be recalculated.

### ***Benefit provisions***

Since the last valuation, the legislature enacted the following benefit enhancement to the ERS statutes:

- Act 199/2003 provides a 6-year phase-in to unreduced retirement with 25 years of service regardless of age for Emergency Medical Technicians. There is no material effect on the actuarial liability.

See the Summary of Retirement Benefit Plan Provisions in the Introductory Section of this CAFR for more details on the benefit provisions.

Trustees  
September 22, 2003  
Page 3

### ***Assumptions and methods***

With the exception of the assumptions for the investment return and for the salary scale, the actuarial assumptions used were adopted based on the recommendations provided by an experience study performed by the prior actuary. The investment return assumption and the salary scale assumption were set by legislative action. Further detail on the assumptions and methods may be found in the Summary of Actuarial Methods and Assumptions of this report. The assumptions that are based on the actuaries' recommendations are internally consistent and are reasonably based on the actual experience of the System. These assumptions are also in full compliance with all parameters established by GASB No. 25.

### ***Data***

Member data for retired, active, and inactive participants was supplied as of March 31, 2003, by the System's staff. We have not subjected this data to any auditing procedures, but have examined the data for reasonableness and consistency with the prior year's data. Asset information was supplied by the System's staff.

### ***Responsibility for Tables and Schedules***

The actuary is responsible for the information with respect to years after 1999 in the Required Supplementary Information, the Schedule of Employer Contributions, and the Notes To Required Supplementary Information in the Financial Section of the System's Comprehensive Annual Financial Report (CAFR). Information with respect to years prior to 2000 was supplied by the System.

Tables and schedules in the Actuarial Section of the CAFR were generally prepared directly by the Actuary. Certain of these tables, however, were prepared by the System utilizing information from this report. When those tables were prepared by the System from our report, they are so noted.

The following exhibits and tables were prepared by the Actuary:

- Actuarial Certification Statement
- Exhibit 1 – Actuarial Present Value of Future Benefits
- Exhibit 2 – Analysis of Normal Cost
- Exhibit 3 – Development of Actuarial Value of Assets
- Exhibit 4 – Total Experience Gain or Loss
- Exhibit 5 – Development of Employer Cost
- Exhibit 6 – Calculated Employer Contribution Requirements

**GABRIEL, ROEDER, SMITH & COMPANY**



Trustees  
September 22, 2003  
Page 4

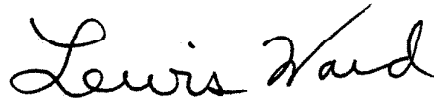
- Exhibit 7 – Employer Appropriations to Pension Accumulation Fund
- Exhibit 8 – Employer Allocation of EIR Program Costs
- Exhibit 9 – Highlights of Last Five Annual Actuarial Valuations
- Ten-Year Actuarial Schedules
  - Membership Data, March 31, 2003
  - Historical Summary of Active Member Data

Sincerely,

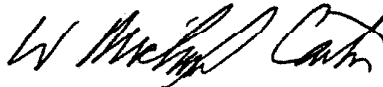
Gabriel, Roeder, Smith & Company



Joe Newton, ASA  
Senior Analyst



Lewis Ward  
Consultant



W. Michael Carter, FSA, EA  
Senior Consultant

klb

3046/2003/valuation/2003\_Val.doc

---

GABRIEL, ROEDER, SMITH & COMPANY

## Actuarial Certification Statement

	Police and Firefighters June 30, 2003	All Other Employees June 30, 2003	All Employees June 30, 2003
1. Total normal cost at valuation date	\$ 44,074,893	\$ 161,160,024	\$ 205,234,917
2. Present value of future benefits			
a. Active employees	\$ 1,322,054,017	\$ 6,026,209,193	\$ 7,348,263,210
b. Inactive members	13,952,691	198,412,396	212,365,087
c. Pensioners and beneficiaries	920,701,551	4,991,555,127	5,912,256,678
d. Total	\$ 2,256,708,259	\$ 11,216,176,716	\$ 13,472,884,975
3. Present value of future employee and employer contributions			
a. Present value of future normal costs	\$ 365,930,704	\$ 1,154,896,829	\$ 1,520,827,533
b. Present value of future employee contributions	271,059,780	104,178,968	375,238,748
c. Present value of future employer normal costs (Item 3a – Item 3b)	\$ 94,870,924	\$ 1,050,717,861	\$ 1,145,588,785
d. Present value of future Early Incentive Retirement (EIR) Program Employer contributions at valuation date	\$ 4,464,364	\$ 64,950,163	\$ 69,414,527
4. Actuarial accrued liability (Item 2d – Item 3a)	\$ 1,890,777,555	\$ 10,061,279,887	\$ 11,952,057,442
5. Actuarial value of assets			
a. Annuity Savings Fund	\$ 406,519,524	\$ 499,984,500	\$ 906,504,024
b. Pension Accumulation Fund	1,152,734,133	7,014,722,242	8,167,456,375
c. Total	\$ 1,559,253,657	\$ 7,514,706,742	\$ 9,073,960,399
6. Unfunded actuarial accrued liability	\$ 331,523,898	\$ 2,546,573,145	\$ 2,878,097,043
7. Appropriations for Fiscal Year ending June 30, 2006			
a. Employer normal cost	\$ 12,349,003	\$ 158,534,160	\$ 170,883,163
b. Amortization payment <sup>1</sup>	31,655,031	236,443,014	268,098,045
c. Employer contribution requirement before EIR	\$ 44,004,034	\$ 394,977,174	\$ 438,981,208
d. EIR payment	382,394	5,563,290	5,945,684
e. Total employer contribution requirement	\$ 44,386,428	\$ 400,540,464	\$ 444,926,892

<sup>1</sup> Fully amortized by 6/30/2029

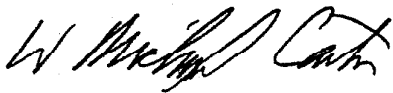
GABRIEL, ROEDER, SMITH & COMPANY

Comprehensive Annual Financial Report 2003

**Actuarial Certification Statement (continued)**

The actuarial valuation as of June 30, 2003 is based on the provisions of Chapter 88 of the Hawaii Revised Statutes, as amended. The assumptions used in the cost calculations were those adopted by the Board of Trustees based on statutory requirements and on the prior actuary's actuarial experience investigation report covering the 1995-2000 period. The actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures.

In our opinion, the contributions required to meet the System's liabilities were calculated in accordance with the provisions of Chapter 88 regarding the funding of the Employees' Retirement System on an actuarial reserve basis.



---

W. Michael Carter, FSA, EA  
Senior Consultant

**GABRIEL, ROEDER, SMITH & COMPANY**

**Exhibit 1**  
**Actuarial Present Value of Future Benefits**

	Police and Firefighters June 30, 2003 (1)	All Other Employees June 30, 2003 (2)	All Employees June 30, 2003 (3)
1. Active members			
a. Service retirement benefits	\$ 1,238,320,865	\$ 5,353,642,662	\$ 6,591,963,527
b. Deferred termination benefits	18,346,151	277,455,905	295,802,056
c. Refunds	21,851,349	644,901	22,496,250
d. Survivor benefits	32,246,881	142,355,434	174,602,315
e. Disability retirement benefits	11,288,771	252,110,291	263,399,062
f. Total	<u>\$ 1,322,054,017</u>	<u>\$ 6,026,209,193</u>	<u>\$ 7,348,263,210</u>
2. Retired members			
a. Service retirement	\$ 868,250,149	\$ 4,748,854,632	\$ 5,617,104,781
b. Disability retirement	22,582,153	81,064,146	103,646,299
c. Beneficiaries	29,869,249	161,636,349	191,505,598
d. Total	<u>\$ 920,701,551</u>	<u>\$ 4,991,555,127</u>	<u>\$ 5,912,256,678</u>
3. Inactive members			
a. Vested terminations	\$ 10,792,835	\$ 188,486,159	\$ 199,278,994
b. Nonvested terminations	3,159,856	9,926,237	13,086,093
c. Total	<u>\$ 13,952,691</u>	<u>\$ 198,412,396</u>	<u>\$ 212,365,087</u>
4. Total actuarial present value of future benefits	<u>\$ 2,256,708,259</u>	<u>\$ 11,216,176,716</u>	<u>\$ 13,472,884,975</u>
	<u>June 30, 2002 (4)</u>	<u>June 30, 2002 (5)</u>	<u>June 30, 2002 (6)</u>
5. Active members			
a. Service retirement benefits	\$ 1,203,474,983	\$ 5,102,176,596	\$ 6,305,651,579
b. Deferred termination benefits	13,379,234	273,179,853	286,559,087
c. Refunds	26,657,185	1,138,498	27,795,683
d. Survivor benefits	29,108,217	127,487,124	156,595,341
e. Disability retirement benefits	11,232,332	241,925,011	253,157,343
f. Total	<u>\$ 1,283,851,951</u>	<u>\$ 5,745,907,082</u>	<u>\$ 7,029,759,033</u>
6. Retired members			
a. Service retirement	\$ 780,594,567	\$ 4,450,381,097	\$ 5,230,975,664
b. Disability retirement	22,222,941	72,969,356	95,192,297
c. Beneficiaries	26,884,307	146,342,983	173,227,290
d. Total	<u>\$ 829,701,815</u>	<u>\$ 4,669,693,436</u>	<u>\$ 5,499,395,251</u>
7. Inactive members			
a. Vested terminations	\$ 11,050,538	\$ 172,434,081	\$ 183,484,619
b. Nonvested terminations	3,562,920	8,313,481	11,876,401
c. Total	<u>\$ 14,613,458</u>	<u>\$ 180,747,562</u>	<u>\$ 195,361,020</u>
8. Total actuarial present value of future benefits	<u>\$ 2,128,167,224</u>	<u>\$ 10,596,348,080</u>	<u>\$ 12,724,515,304</u>

**GABRIEL, ROEDER, SMITH & COMPANY**

## Exhibit 2 Analysis of Normal Cost

	Police and Firefighters June 30, 2003	All Other Employees June 30, 2003	All Employees June 30, 2003
1. Total normal cost as of valuation date			
a. Service retirement benefits	\$ 37,301,176	\$ 127,411,176	\$ 164,712,352
b. Deferred termination benefits	838,323	17,472,646	18,310,969
c. Refunds	3,985,001	4,423,423	8,408,424
d. Disability retirement benefits	546,439	7,136,751	7,683,190
e. Survivor benefits	1,403,954	4,716,028	6,119,982
f. Total	\$ 44,074,893	\$ 161,160,024	\$ 205,234,917
2. Effective employer contribution rate (Exhibit 5, Item 8)	12.20%	0.57%	1.67%
3. Payroll (adjusted for one year's pay increase) (Exhibit 5, Item 1)	\$ 267,684,805	\$ 2,558,996,748	\$ 2,826,681,553
4. Employee and employer normal cost			
a. Total normal cost (Item 1f)	\$ 44,074,893	\$ 161,160,024	\$ 205,234,917
b. Employee contribution (Item 3 * Item 2)	32,657,546	14,586,281	47,243,827
c. Employer normal cost (Item 4a – Item 4b)	\$ 11,417,347	\$ 146,573,743	\$ 157,991,090
5. Normal cost as a percent of pay			
a. Service retirement benefits	13.95%	4.99%	5.82%
b. Deferred termination benefits	0.31%	0.68%	0.65%
c. Refunds	1.49%	0.17%	0.30%
d. Disability retirement benefits	0.20%	0.28%	0.27%
e. Survivor benefits	0.52%	0.18%	0.22%
f. Total	16.47%	6.30%	7.26%
g. Employee normal cost rate (Item 2)	12.20%	0.57%	1.67%
h. Employer contribution rate (Item 5f – Item 5g)	4.27%	5.73%	5.59%

GABRIEL, ROEDER, SMITH & COMPANY

### Exhibit 3 Development of Actuarial Value of Assets

	June 30, 2003	June 30, 2002
1. Actuarial value at beginning of year	\$ 9,415,160,481	\$ 9,515,956,661
2. Contributions	247,800,797	222,910,118
3. Benefits and refunds paid	(605,413,482)	(568,803,644)
4. Expected investment return	738,908,331	747,440,792
5. Preliminary actuarial value of assets at end of year	\$ 9,796,456,127	\$ 9,917,503,927
6. Market value at end of year	\$ 7,687,164,883	\$ 7,907,020,366
7. Outstanding excess investment earnings credit (Act 100/1999)	-	-
8. Adjusted market value of assets (Items 7 + Item 8)	\$ 7,687,164,883	\$ 7,907,020,366
9. Market value excess (Item 8 – Item 5)	\$ (2,109,291,244)	\$ (2,010,483,561)
10. Determination of market value excess for current year		
a. Balance from 3 years ago	\$ 47,091,100	\$ 69,864,600
b. Balance from 2 years ago	(605,331,847)	94,182,100
c. Balance from 1 year ago	(949,899,368)	(907,997,770)
d. Balance from current year	(601,151,129)	(1,266,532,491)
11. Amortization of market value excess		
a. Balance from 3 years ago	\$ 47,091,100	\$ 69,864,600
b. Balance from 2 years ago	(302,665,923)	47,091,100
c. Balance from 1 year ago	(316,633,123)	(302,665,923)
d. Balance from current year	(150,287,782)	(316,633,123)
e. Total excess investment return	\$ (722,495,728)	\$ (502,343,446)
12. Actuarial value at end of year (Item 5 + Item 11e)	\$ 9,073,960,399	\$ 9,415,160,481
13. Annuity Savings Fund	\$ 906,504,024	\$ 915,247,831
14. Pension Accumulation Fund (Item 12 – Item 13)	\$ 8,167,456,375	\$ 8,499,912,650
15. Reserve for future years (Item 8 – Item 12)	\$ (1,386,795,516)	\$ (1,508,140,115)

GABRIEL, ROEDER, SMITH & COMPANY

### Exhibit 4 Total Experience Gain or Loss

Item	Police and Firefighters June 30, 2003	All Other Employees June 30, 2003	All Employees June 30, 2003
A. Calculation of total actuarial gain or loss			
1. Unfunded actuarial accrued liability (UAAL), previous year	\$ 175,182,882	\$ 1,619,882,569	\$ 1,795,065,451
2. Normal cost for the year (employer and employee)	\$ 41,963,704	\$ 150,889,445	\$ 192,853,149
3. Less: contributions and assessments for the year	\$ (42,581,660)	\$ (205,219,137)	\$ (247,800,797)
4. Interest at 8%			
a. On UAAL	\$ 14,014,631	\$ 129,590,606	\$ 143,605,237
b. On normal cost	3,357,096	12,071,156	15,428,252
c. On contributions	(1,703,266)	(8,208,765)	(9,912,031)
d. Total	15,668,461	133,452,997	149,121,458
5. Expected UAAL (Sum of Items 1 – 4)	\$ 190,233,387	\$ 1,699,005,874	\$ 1,889,239,261
6. Actual UAAL	\$ 331,523,898	\$ 2,546,573,145	\$ 2,878,097,043
7. Total gain (loss) for the year (Item 5 – Item 6)	\$ (141,290,511)	\$ (847,567,271)	\$ (988,857,782)
B. Source of gains and losses			
8. Asset gain (loss) for the year	\$ (124,152,416)	\$ (598,343,312)	\$ (722,495,728)
9. Liability gain (loss) for the year	\$ (17,138,095)	\$ (249,223,959)	\$ (266,362,054)
10. Change in benefit provisions	N/A	N/A	N/A
11. Change in actuarial assumptions	N/A	N/A	N/A
12. Change in asset method	N/A	N/A	N/A
13. Total	\$ (141,290,511)	\$ (847,567,271)	\$ (988,857,782)

**GABRIEL, ROEDER, SMITH & COMPANY**

### Exhibit 5 Development of Employer Cost

	Police and Firefighters June 30, 2003	All Other Employees June 30, 2003	All Employees June 30, 2003
1. Payroll (adjusted for one year's pay increase)	\$ 267,684,805	\$ 2,558,996,748	\$ 2,826,681,553
2. Actuarial present value of future pay	\$ 2,221,801,481	\$ 18,331,695,698	\$ 20,553,497,179
3. Present value of future benefits (Exhibit 1)	\$ 2,256,708,259	\$ 11,216,176,716	\$ 13,472,884,975
4. Gross normal cost at 6/30/2003			
a. Amount (Exhibit 2, Item 4a)	\$ 44,074,893	\$ 161,160,024	\$ 205,234,917
b. Percent of pay (Exhibit 2, Item 5f)	16.47%	6.30%	7.26%
5. Present value future normal cost (Item 4b * Item 2)	\$ 365,930,704	\$ 1,154,896,829	\$ 1,520,827,533
6. Actuarial accrued liability (Item 3 – Item 5)	\$ 1,890,777,555	\$ 10,061,279,887	\$ 11,952,057,442
7. Present value future employee contributions	\$ 271,059,780	\$ 104,178,968	\$ 375,238,748
8. Weighted effective employee contribution % (Item 7 / Item 2)	12.20%	0.57%	1.67%
9. Employer normal cost rate (Item 4b - Item 8)	4.27%	5.73%	5.59%
10. Actuarial value of assets	\$ 1,559,253,657	\$ 7,514,706,742	\$ 9,073,960,399
11. Unfunded actuarial accrued liability (UAAL) (Item 6 - Item 10)	\$ 331,523,898	\$ 2,546,573,145	\$ 2,878,097,043
12. Funding period in years (Funding to 6/30/2029)			
a. As of June 30, 2003	26	26	26
b. Reflecting two year lag	24	24	24
13. Present value of future Early Incentive Retirement Program Employer Contributions at 6/30/2005	\$ 4,348,225	\$ 63,260,500	\$ 67,608,725
14. Projection of UAAL for 2004/2005			
a. Expected FY2003/2004 employer contribution	\$ 18,643,190	\$ 217,042,605	\$ 235,685,795
b. Expected FY2003/2004 employee contribution	32,657,546	14,586,281	47,243,827
c. Expected FY2004/2005 employer contribution	29,192,806	299,523,912	328,716,718
d. Expected FY2004/2005 employee contribution	33,963,848	15,169,733	49,133,581
e. Expected UAAL at 6/30/2004	352,293,929	2,683,457,781	3,035,751,710
f. Expected UAAL at 6/30/2005	\$ 364,299,443	\$ 2,751,867,952	\$ 3,116,167,395
15. Amortization for Fiscal Year Ending June 30, 2006			
a. Amortization payment (level payments)	\$ 31,655,031	\$ 236,443,014	\$ 268,098,045
b. Employer normal cost	12,349,003	158,534,160	170,883,163
c. Employer contribution requirement (a + b)	44,004,034	394,977,174	438,981,208
d. EIR payment	382,394	5,563,290	5,945,684
e. Total	\$ 44,386,428	\$ 400,540,464	\$ 444,926,892
f. Employer contribution requirement (% of projected payroll)	15.33%	14.47%	14.55%

**GABRIEL, ROEDER, SMITH & COMPANY**



### Exhibit 6 Calculated Employer Contribution Requirements

	Fiscal Year 2005/2006		
	Police and Firefighters (1)	All Other Employees (2)	All Employees (3)
1. Dollar Amounts			
a. Employer Normal Cost	\$ 12,349,003	\$ 158,534,160	\$ 170,883,163
b. Amortization Payment	31,655,031	236,443,014	268,098,045
c. Subtotal	\$ 44,004,034	\$ 394,977,174	\$ 438,981,208
d. EIR Payment	382,394	5,563,290	5,945,684
e. Excess Investment Earnings Credit	-	-	-
f. Total Appropriations	\$ 44,386,428	\$ 400,540,464	\$ 444,926,892
2. Payroll Projected to Fiscal Year 2005/2006	\$ 289,527,885	\$ 2,767,810,883	\$ 3,057,338,768
3. Percentages of Total Projected Payroll (Item 1 / Item 2)			
a. Normal Cost	4.27%	5.73%	5.59%
b. Amortization Payment	10.93%	8.54%	8.77%
c. Subtotal	15.20%	14.27%	14.36%
d. EIR Payment	0.13%	0.20%	0.19%
e. Excess Investment Earnings Credit	0.00%	0.00%	0.00%
f. Total Appropriations	15.33%	14.47%	14.55%

**Note:** Total annual payroll as of March 31, 2003 was \$2,718,435,581 for all employees, comprised of \$257,496,168 for police and firefighters and \$2,460,939,413 for all other employees. (The comparable figures for March 31, 2002 were \$2,568,707,028, \$250,884,000 and \$2,317,823,028, respectively.)

**Exhibit 7**  
**Employer Appropriations to Pension Accumulation Fund**

Employer	Appropriations for 2005/2006 (Based on 6/30/2003 Valuation)			Appropriations for 20045/2005 (Based on 6/30/2002 Valuation)		
	Police and Firefighters	All Other Employees	Total	Police and Firefighters	All Other Employees	Total
State of Hawaii	\$ 2,120,991	\$ 335,862,697	\$ 337,983,688	\$ 1,436,081	\$ 250,248,917	\$ 251,684,998
City & County of Honolulu	28,759,338	37,070,684	65,830,022	19,017,353	28,635,898	47,653,251
- Board of Water Supply	-	4,299,121	4,299,121	-	3,380,240	3,380,240
County of Hawaii	5,971,191	8,818,124	14,789,315	3,856,705	6,631,058	10,487,763
County of Maui	5,219,630	9,372,758	14,592,388	3,342,065	6,810,170	10,152,235
County of Kauai	2,315,278	5,117,080	7,432,358	1,540,602	3,817,629	5,358,231
Total All Employers	\$ 44,386,428	\$ 400,540,464	\$ 444,926,892	\$ 29,192,806	\$ 299,523,912	\$ 328,716,718

**GABRIEL, ROEDER, SMITH & COMPANY**

**Exhibit 8**  
**Employer Allocation of EIR Program Costs**

	General & Teachers		Police and Firefighters		Total	
	Balance as of 7/01/2000	29 Year Payment	Balance as of 7/01/2000	29 Year Payment	Balance as of 7/01/2000	29 Year Payment
State of Hawaii	\$ 55,807,037	\$ 4,630,875	\$ 234,273	\$ 19,440	\$ 56,041,310	\$ 4,650,315
City & County of Honolulu	6,520,464	541,069	3,004,285	249,296	9,524,749	790,365
- Board of Water Supply	801,589	66,516	-	-	801,589	66,516
County of Hawaii	1,519,665	126,102	611,772	50,765	2,131,437	176,867
County of Maui	1,546,840	128,357	525,655	43,619	2,072,495	171,976
County of Kauai	848,046	70,371	232,272	19,274	1,080,318	89,645
<b>Total</b>	<b>\$ 67,043,641</b>	<b>\$ 5,563,290</b>	<b>\$ 4,608,257</b>	<b>\$ 382,394</b>	<b>\$ 71,651,898</b>	<b>\$ 5,945,684</b>

**Unamortized Balance as of June 30, 2003**

	General & Teachers		Police and Firefighters		Total	
	Balance as of 7/01/2000	29 Year Payment	Balance as of 7/01/2000	29 Year Payment	Balance as of 7/01/2000	29 Year Payment
State of Hawaii	\$ 54,064,428	\$ 226,958	\$ 54,064,428	\$ 226,958	\$ 54,291,386	\$ 226,958
City & County of Honolulu	6,316,859	2,910,475	6,316,859	2,910,475	9,227,334	2,910,475
- Board of Water Supply	776,559	-	776,559	-	776,559	-
County of Hawaii	1,472,212	592,670	1,472,212	592,670	2,064,882	592,670
County of Maui	1,498,539	509,242	1,498,539	509,242	2,007,781	509,242
County of Kauai	821,566	225,019	821,566	225,019	1,046,585	225,019
<b>Total</b>	<b>\$ 64,950,163</b>	<b>\$ 4,464,364</b>	<b>\$ 64,950,163</b>	<b>\$ 4,464,364</b>	<b>\$ 69,414,527</b>	<b>\$ 4,464,364</b>

**GABRIEL, ROEDER, SMITH & COMPANY**

**Exhibit 9**  
**Highlights of Last Five Annual Actuarial Valuations**  
 1999 through 2003

Item	Valuation Date: June 30				
	1999	2000	2001	2002	2003
Number of active members	58,387	59,191	59,992	62,208	62,292
Number of inactive members	2,777	3,016	3,416	3,835	4,150
Number of pensioners	26,709	27,357	28,210	28,770	29,730
Number of beneficiaries	1,241	1,358	1,450	1,560	1,659
Average monthly contributory plan pension amount	\$ 1,367	\$ 1,419	\$ 1,475	\$ 1,571	\$ 1,559
Average monthly noncontributory plan pension amount	\$ 1,129	\$ 1,142	\$ 1,170	\$ 1,208	\$ 1,237
Average monthly beneficiary amount	\$ 771	\$ 805	\$ 838	\$ 875	\$ 909
Total actuarial value of assets (\$millions) <sup>(1)</sup>	\$ 8,591	\$ 9,205	\$ 9,516	\$ 9,415	\$ 9,074
Unfunded actuarial accrued liability (\$millions) <sup>(1)</sup>	\$ 590.9	\$ 494.2	\$ 991.0	\$ 1,795.1	\$ 2,878.1
	Appropriation Year				
	2001-2002	2002-2003	2003-2004 <sup>(2)</sup>	2004-2005	2005-2006
Total calculated appropriations <sup>(1)</sup>	\$ 193.1	\$ 180.4	\$ 229.8	\$ 322.8	\$ 439.0
EIR Program appropriations	8.1	8.1	5.9	5.9	5.9
Excess investment earnings credit <sup>(1)</sup>	(33.7)	-	-	-	-
Net employer appropriations	\$ 167.5	\$ 188.5	\$ 235.7	\$ 328.7	\$ 444.9

<sup>(1)</sup> Figures from 1999 valuation has been revised to reflect Act 100/1999 and related lawsuit, Act 216/2000

<sup>(2)</sup> Figure from 2001 valuation has been revised to reflect reamortization to 6/30/2029 under Act 147/2002

**GABRIEL, ROEDER, SMITH & COMPANY**

## Summary of Actuarial Methods and Assumptions

### I. Valuation Date

The valuation date is June 30th of each plan year. This is the date as of which the actuarial present value of future benefits and the actuarial value of assets are determined.

### II. Actuarial Cost Method

Under the entry age normal actuarial cost method, the total employer contribution is comprised of the "normal cost" plus the level annual payment required to amortize the unfunded actuarial accrued liability over the remaining period of 29 years from July 1, 2000. The normal cost is the level percentage of payroll contribution required to accumulate the needed funds to pay all expected benefits. Actuarial gains and losses resulting from differences between actual and assumed experience are reflected in the unfunded accrued liability.

### III. Actuarial Value of Assets

The actuarial value of assets is equal to the market value, adjusted for a four-year phase in of actual investment return in excess of expected investment return. The actual return is calculated net of investment and administrative expenses, and the expected investment return is equal to the assumed investment return rate multiplied by the prior year's market value of assets, adjusted for contributions, benefits paid, and refunds.

### IV. Actuarial Assumptions

#### A. Economic Assumptions

1. Investment return: 8% per year, compounded annually, composed of an assumed 4.00% inflation rate and a 4.00% net real rate of return. (Set by legislative action.)
2. Salary increase rate: 4% per year, compounded annually. (Set by legislative action.)

#### B. Demographic Assumptions

##### 1. Mortality rates

##### General Employees

- a. Healthy males – 1994 US Group Annuity Mortality Static Table for males, set back one year.
- b. Healthy females - 1994 US Group Annuity Mortality Static Table for females.
- c. Disabled males - 1994 US Group Annuity Mortality Static Table for males, set forward ten years.
- d. Disabled females - 1994 US Group Annuity Mortality Static Table for males, set forward eleven years.

Teachers

- a. Healthy males – 1994 US Group Annuity Mortality Static Table for males, set back three years.
- b. Healthy females - 1994 US Group Annuity Mortality Static Table for females, set back one year.
- c. Disabled males - 1994 US Group Annuity Mortality Static Table for males, set forward four years.
- d. Disabled females - 1994 US Group Annuity Mortality Static Table for males, set forward six years.

Police and Fire

- a. Healthy males – 1994 US Group Annuity Mortality Static Table for males, set forward two years.
  - b. Healthy females - 1994 US Group Annuity Mortality Static Table for females, set forward two years.
  - c. Disabled males - 1994 US Group Annuity Mortality Static Table for males, set forward five years.
  - d. Disabled females - 1994 US Group Annuity Mortality Static Table for males, set forward five years.
2. Disability rates – The assumed total disability rates for employees covered by the contributory plan and the noncontributory plan at select ages are as follows:

Age	General Employees	Teachers	Police and Fire
	Male & Female	Male & Female	Male & Female
25	0.025%	0.008%	0.010%
30	0.025%	0.008%	0.010%
35	0.030%	0.010%	0.012%
40	0.045%	0.015%	0.018%
45	0.090%	0.030%	0.036%
50	0.200%	0.066%	0.080%
55	0.425%	0.139%	0.170%
60	0.870%	0.285%	0.348%

Note: The disability rates project the percentage of employees at each age that is assumed to become disabled before retiring. The percentage of disabilities assumed to be ordinary disability as opposed to accidental disability varies by employee group as follows:

Type	General Employees	Teachers	Police and Fire
	Male & Female	Male & Female	Male & Female
Ordinary	85%	100%	50%
Accidental	15%	0%	50%

3. Termination Rates - Separate male and female rates, based on both age and service, developed from 2000 Experience Study. Rates reflect terminations for causes other than death, disability or retirement. Sample rates are shown below:

General Employees

Age	Expected Terminations per 100 Lives							
	Male Members				Female Members			
	Years of Service				Years of Service			
	0	1	2	3 or more	0	1	2	3 or more
25	19.02	12.34	9.39	6.08	21.80	17.26	15.63	8.97
30	16.37	12.64	10.38	5.65	21.62	15.50	14.16	7.23
35	15.24	11.75	9.66	4.54	19.57	14.39	12.25	5.35
40	14.87	11.22	8.71	3.70	16.63	13.02	10.31	3.68
45	13.99	10.47	8.45	2.95	16.64	11.97	9.27	2.95
50	12.52	9.16	7.86	2.45	18.15	12.11	8.89	2.61
55	11.53	8.48	6.65	1.98	20.67	13.14	9.24	2.32
60	12.54	9.53	5.25	1.69	23.88	15.62	11.38	1.96

Teachers

Age	Expected Terminations per 100 Lives							
	Male Members				Female Members			
	Years of Service				Years of Service			
	0	1	2	3 or more	0	1	2	3 or more
25	24.33	10.12	13.20	7.97	20.12	12.62	13.16	8.61
30	23.04	12.60	12.75	6.62	21.78	15.04	15.25	7.25
35	24.32	14.33	12.20	5.07	23.58	16.33	16.75	5.62
40	27.14	15.40	11.29	4.33	24.54	15.93	15.95	4.16
45	30.24	15.67	10.52	3.53	24.73	15.14	13.98	2.80
50	33.50	15.43	9.97	2.49	25.71	15.70	13.25	2.00
55	37.79	14.99	9.56	1.92	27.19	16.91	12.94	1.61
60	43.72	14.18	9.24	1.76	28.47	17.93	12.13	1.87

Police and Fire

Age	Expected Terminations per 100 Lives							
	Male Members				Female Members			
	Years of Service				Years of Service			
	0	1	2	3 or more	0	1	2	3 or more
25	6.43	2.58	2.69	3.71	6.43	2.58	2.69	3.71
30	7.46	3.33	3.66	3.35	7.46	3.33	3.66	3.35
35	9.33	4.39	4.48	2.54	9.33	4.39	4.48	2.54
40	11.44	6.36	4.76	1.56	11.44	6.36	4.76	1.56
45	12.83	9.31	4.30	0.79	12.83	9.31	4.30	0.79
50	13.45	12.47	3.57	0.39	13.45	12.47	3.57	0.39
55	13.79	15.38	2.77	0.32	13.79	15.38	2.77	0.32
60	14.10	18.19	1.95	0.45	14.10	18.19	1.95	0.45

**GABRIEL, ROEDER, SMITH & COMPANY**

4. Retirement rates - Separate male and female rates, based on age, developed from the 2000 Experience Study. Sample rates are shown below:

Expected Retirements per 100 Lives									
Age	Contributory Plan					Noncontributory Plan			
	General Employees		Teachers		Police and Fire	General Employees		Teachers	
	Male	Female	Male	Female	Male & Female	Male	Female	Male	Female
45	3	1	1	1	20	8	8	5	8
46	3	1	1	1	20	8	8	5	8
47	3	1	1	1	20	8	8	5	8
48	3	1	1	1	20	8	8	5	8
49	3	1	1	1	18	8	8	5	8
50	3	1	1	1	18	8	8	5	8
51	3	1	1	1	18	8	8	5	8
52	3	1	1	1	18	8	8	5	8
53	3	1	1	1	18	8	8	5	8
54	10	10	5	2	23	8	8	5	8
55	20	20	20	20	30	8	8	5	8
56	10	10	10	15	25	5	6	5	8
57	10	10	10	15	30	5	6	5	8
58	10	10	10	15	20	5	6	6	10
59	12	12	10	15	20	5	5	6	12
60	12	12	10	15	40	8	8	5	15
61	18	15	10	15	40	15	15	6	15
62	35	35	15	25	100	40	40	15	25
63	20	25	15	15		25	25	5	15
64	20	20	15	15		30	25	5	15
65	45	45	25	25		70	50	15	30
66	25	25	25	25		40	35	20	20
67	30	30	30	30		40	35	25	25
68	40	40	40	40		40	35	25	25
69	40	40	40	40		40	35	25	25
70	100	100	100	100		100	100	100	100



**C. Other Assumptions**

1. Percent married: 77% of male employees and 57.6% of female employees are assumed to be married.
2. Age difference: Male members are assumed to be four years older than their spouses, and female members are assumed to be four years younger than their spouses.
3. Percent electing annuity on death for contributory participants (when eligible): All of the spouses of married participants who die after becoming eligible for a retirement benefit are assumed to elect an annuity or a refund, whichever is more valuable at time of participant's death.
4. Percent electing deferred termination benefit: vested terminating members are assumed to elect a refund or a deferred benefit, whichever is more valuable at the time of termination.
5. Assumed age for commencement of deferred benefits: Members electing to receive a deferred benefit are assumed to commence receipt when eligible for early retirement.
6. Administrative expenses: The assumed investment return rate represents the anticipated net return after payment of all investment and administrative expenses.
7. Reemployment, purchase of service, transfers: No recognition is made of (i) future member reimbursements upon reemployment, (ii) future purchase of additional service, or (iii) special transfer provisions.

**V. Participant Data**

Participant data was supplied on CD-ROM for (i) active members, (ii) inactive vested members, who are entitled to a future deferred benefit, (iii) members and beneficiaries receiving benefits.

Salary supplied for the current year was based on the earnings for the March preceding the valuation date. This salary was compared to March base pay plus a twelve-month average of overtime, with the greater of the two being used for valuation pay.

**VI. Dates of Adoption of Assumptions and Methods**

Generally, actuarial assumptions and methods were adopted by the Board of Trustees in 2000 as recommended by the Segal Company, the prior actuary, with respect to the assumptions, and by Gabriel, Roeder, Smith & Company with respect to the methods. These assumptions and methods were first reflected in the 2001 actuarial valuation. The legislature sets the investment return assumption and the salary scale assumption in the statutes governing the System.

---

## Summary of Plan Changes

### Act 65, effective July 1 1999

1. Requires judges who enter or re-enter service after June 30, 1999 to be at least 55 years old and five years of service or have 25 years of service to rehire.

### Act 100, effective June 30, 1999

1. Uses actuarial investment earnings in excess of a ten percent (10%) actuarial investment yield rate to reduce the employer's contribution requirements by \$147.0 million and \$50.6 million for fiscal years ending June 30, 2000 and 2001, respectively.

### Act 284, effective June 30, 2001

Provide an increase in pension benefits for current retirees with military service who retired prior to July 2, 1989. A retirant who rendered honorable active military service could be granted up to 4 years of military service credits based upon his/her years of credited service under the system, not to exceed his/her actual years of military service. The years of military service credits granted are based on the following schedule:

- 0 years for retirants with less than 8 years of credited service
- Up to 2 years of retirants with 8 years or more of credited service
- Up to 3 years of retirants with 20 years or more of credited service
- Up to 4 years of retirants with 25 years or more of credited service

For each year of military service credits granted on the schedule above, the retirant will be provided a \$36.00 increase in his/her monthly pension or retirement allowance.

### Act 199, effective June 30, 2003

Emergency Medical Technicians (EMTs) are allowed to retire with an unreduced benefit after 25 years of service regardless of age, of which the last five or more years prior to retirement must be in that capacity. This feature is phased in one year at a time, July 1, 2003 through June 30, 2008.

**TEN-YEAR ACTUARIAL SCHEDULES  
1994 to 2003**

- Retirement System Membership \*\*
  - 2003 Membership Data \*
- Historical Summary of Active Member Data \*
- Pensioners, Average Annual Pension and Active Member/Pensioner Comparison \*\*
- Number of Retirants and Beneficiaries \*\*
- Solvency Test \*\*
- Employer Contribution Rates as a Percentage of Payroll \*\*
- Employer Appropriations to Pension Accumulation Fund, Appropriation Years 1996-1997 to 2005-2006 \*\*

Note: \* Prepared by Gabriel, Roeder, Smith & Company  
 \*\* Compiled by ERS Staff from actuary reports, or other data.

**Retirement System Membership \*\*  
1994 to 2003**

March 31,	Active Members	Inactive Vested Members	Pensioners & Beneficiaries	Total Membership
1994	58,890	2,192	22,905	83,987
1995	58,498	2,189	25,360	86,047
1996	56,985	2,290	26,926	86,201
1997	57,044	2,456	27,173	86,673
1998	57,797	2,650	27,403	87,850
1999	58,387	2,777	27,950	89,114
2000	59,191	3,016	28,715	90,922
2001	59,992	3,416	29,660	93,068
2002	62,208	3,835	30,330	96,373
2003	62,292	4,150	31,389	97,831

\*\* Schedule compiled by ERS Staff from actuary reports.

**GABRIEL, ROEDER, SMITH & COMPANY**

### 2003 Membership Data \*

March 31, 2003

	Police and Firefighters		All Other Employees		All Employees	
	June 30, 2003	June 30, 2002	June 30, 2003	June 30, 2002	June 30, 2003	June 30, 2002
1. Active members						
a. Number	4,656	4,734	57,636	57,474	62,292	62,208
b. Total payroll	\$257,496,167	\$250,884,000	\$2,460,939,412	\$2,317,823,028	\$2,718,435,579	\$2,568,707,028
c. Average salary	\$ 53,304	\$ 52,996	\$ 42,698	\$ 40,328	\$ 43,640	\$ 41,292
d. Average age	40.1	39.9	46.5	46.2	46.0	45.8
e. Average service	13.1	13.0	13.1	13.2	13.1	13.2
2. Inactive members						
a. Number	130	115	4,020	3,720	4,150	3,835
b. Total annual deferred benefits	\$ 1,950,910	\$1,757,646	\$ 28,691,500	\$ 25,357,738	\$ 30,642,410	\$ 27,115,384
c. Average annual deferred benefit	\$ 15,007	\$ 15,284	\$ 7,137	\$ 6,817	\$ 7,384	\$ 7,071
3. Service retirees						
a. Number	2,411	2,265	26,135	25,368	28,546	27,633
b. Total annual benefits	\$ 76,395,874	\$ 69,006,265	\$ 465,717,257	\$ 435,609,922	\$ 542,113,131	\$ 504,616,187
c. Average annual benefit	\$ 31,686	\$ 30,466	\$ 17,820	\$ 17,172	\$ 18,991	\$ 18,261
4. Disabled retirees						
a. Number	168	168	1,016	969	1,184	1,137
b. Total annual benefits	\$ 2,285,859	\$ 2,252,986	\$ 8,625,296	\$ 8,069,480	\$ 10,911,155	\$ 10,322,466
c. Average annual benefit	\$ 13,606	\$ 13,411	\$ 8,489	\$ 8,328	\$ 9,216	\$ 9,079
5. Beneficiaries						
a. Number	126	135	1,533	1,425	1,659	1,560
b. Total annual benefits	\$ 2,582,432	\$ 2,328,810	\$ 15,515,143	\$ 14,049,496	\$ 18,097,575	\$ 16,378,306
c. Average annual benefit	\$ 20,495	\$ 17,250	\$ 10,121	\$ 9,859	\$ 10,909	\$ 10,499

\* Prepared by Gabriel, Roeder, Smith & Company

### Historical Summary of Active Member Data \*

1994 to 2003

Year Ending June 30,	Active Members		Covered Payroll		Average Salary		Average Age	Average Service
	Number	Percent Increase	Amount in \$Millions	Percent Increase	\$ Amount	Percent Increase		
1994	58,890	2.5%	2,029.9	2.7%	34,469	0.2%		
1995	58,498	-0.7%	2,083.0	2.6%	35,608	3.3%		
1996	56,985	-2.6%	1,990.1	-4.5%	34,923	-1.9%		
1997	57,044	0.1%	2,019.3	1.5%	35,399	1.4%		
1998	57,797	1.3%	2,135.9	5.8%	36,955	4.4%		
1999	58,387	0.9%	2,186.5	2.4%	37,448	1.3%		
2000	59,191	1.4%	2,275.3	4.1%	38,440	2.6%	45.5	13.0
2001	59,992	1.4%	2,350.2	3.3%	39,175	1.9%	45.6	13.3
2002	62,208	3.7%	2,568.7	9.3%	41,292	5.4%	45.8	13.2
2003	62,292	0.1%	2,718.4	5.8%	43,640	5.7%	46.0	13.1

\* Prepared by Gabriel, Roeder, Smith & Company

**Pensioners, Average Annual Pension and  
Active Member/Pensioner Comparison \*\***  
1994 to 2003

March 31,	Number of Pensioners	Average Annual Pension	Ratio of Active Members per Pensioner
1994	22,237	\$12,468	2.6
1995	24,517	\$13,452	2.6
1996	25,975	\$14,364	2.4
1997	26,152	\$14,976	2.2
1998	26,257	\$15,552	2.2
1999	26,709	\$16,116	2.2
2000	27,357	\$16,632	2.2
2001	28,210	\$16,853	2.1
2002	28,770	\$17,898	2.1
2003	29,730	\$18,601	2.1

\*\* Schedule compiled by ERS Staff from actuary reports.

**Number of Retirants and Beneficiaries \*\***  
1994 to 2003

As of Mar 31,	Added	Average Added to Rolls	Removed	Average Removed to Rolls	Total	Average Pension	% Chg
<b>Retirants</b>							
1994 <sup>1</sup>	1,037	n/a	302	n/a	23,723	\$12,468	
1995 <sup>1</sup>	2,301	n/a	664	n/a	25,360	\$13,452	7.9%
1996 <sup>1</sup>	2,249	n/a	683	n/a	26,926	\$14,364	6.8%
1997 <sup>1</sup>	943	n/a	696	n/a	27,173	\$14,976	4.3%
1998 <sup>1</sup>	1,013	n/a	783	n/a	27,403	\$15,552	3.9%
1999 <sup>1</sup>	1,311	n/a	764	n/a	27,950	\$16,116	3.6%
2000 <sup>1</sup>	1,549	n/a	784	n/a	28,715	\$16,632	3.2%
2001 <sup>1</sup>	1,668	n/a	723	n/a	29,660	\$16,853	1.3%
2002	1,229	\$18,707	739	\$12,559	28,770	\$17,898	4.1%
2003	1,723	\$20,292	763	\$12,836	29,730	\$18,601	3.9%
<b>Beneficiaries <sup>1</sup></b>							
2002	176	\$11,904	66	\$ 6,660	1,560	\$10,499	4.5%
2003	147	\$12,137	48	\$ 6,068	1,659	\$10,909	3.9%

Notes: <sup>1</sup> Beneficiary counts are included in retirant amounts through 2001. As of March 31, 2001, there were 28,210 retirants and 1,450 beneficiaries, receiving annual retirement benefits of \$17,202 and \$10,050, respectively.

n/a Information not available.

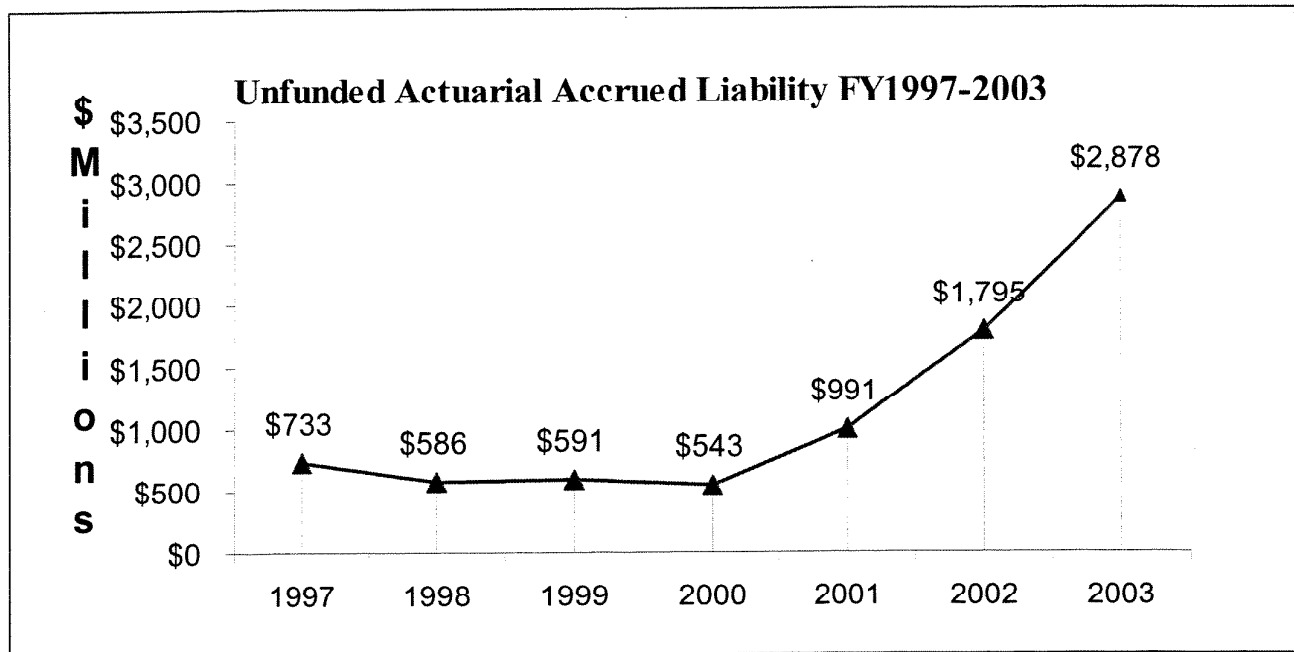
\*\* Schedule compiled by ERS staff from actuary reports.

### Solvency Test <sup>\*\*</sup> 1994 to 2003

June 30,	Actuarial Accrued Liabilities (AAL)			Actuarial Value of Assets	Cumulative Portion of Actuarial Accrued Liabilities Covered by Assets		
	Active Member Contributions	Retirees, Beneficiaries, and Inactive Vested Members	Active and Inactive Members Employer Financed Portion		Column (1)	Column (2)	Column (3)
	(1)	(2)	(3)		(5)	(6)	(7)
1994	910.0	2,842.6	3,246.7	5,146.8	100%	100%	42.9%
1995	780.7	3,530.0	3,089.1	5,615.9	100%	100%	42.3%
1996	811.6	4,091.3	2,496.8	6,084.8	100%	100%	47.3%
1997	830.7	4,369.8	2,716.9	7,268.5	100%	100%	76.1%
1998	883.5	4,472.7	3,053.5	7,916.2	100%	100%	83.5%
1999	902.2	4,682.2	3,517.2	8,590.8	100%	100%	85.5%
2000	938.0	4,914.5	3,817.8	9,204.7	100%	100%	87.8%
2001	876.0	5,232.4	4,398.5	9,516.0	100%	100%	77.5%
2002	889.9	5,499.4	4,820.9	9,415.2	100%	100%	62.7%
2003	872.3	5,912.3	5,167.5	9,074.0	100%	100%	44.3%

Note: Actuarial accrued liabilities for 1994 are not comparable with amounts shown for later years. For 1994, the sum of the three actuarial accrued liabilities equals the total pension benefit obligation. Beginning 1995, the actuarial accrued liabilities are equal to the actuarial accrued liability under the Entry Age Normal Actuarial Cost Method.

\*\* Schedule compiled by ERS Staff from actuary reports.



**Employer Contribution Rates as a Percentage of Payroll \*\***  
1994 to 2003

Actuarial Valuation as of June 30,	Police and Firefighters			All Other Employees			All Active Employees		
	Normal Cost Rate	Amorti- zation Percent	Total Employer Rate	Normal Cost Rate	Amorti- zation Percent	Total Employer Rate	Normal Cost Rate	Amorti- zation Percent	Total Employer Rate
1994	17.71%	2.68%	20.39%	12.88%	1.84%	14.72%	13.33%	1.92%	15.25%
1995	15.95%	7.24%	23.19%	5.38%	8.65%	14.03%	6.39%	8.52%	14.91%
1996	14.23%	1.23%	15.46%	3.76%	3.19%	6.95%	4.76%	3.00%	7.76%
1997	18.40%	-11.36%	7.04%	3.87%	-3.45%	0.42%	5.38%	-4.27%	1.11%
1998	11.47%	-11.22%	0.25%	4.28%	-3.88%	0.40%	4.99%	-4.61%	0.38%
1999	18.01%	-2.53%	15.48%	5.19%	1.61%	6.80%	6.46%	1.20%	7.66%
2000	13.17%	-8.82%	4.35%	6.03%	3.72%	9.75%	6.72%	2.50%	9.22%
2001	3.88%	4.16%	8.04%	5.59%	4.86%	10.45%	5.42%	4.78%	10.20%
2002	3.88%	6.46%	10.34%	5.62%	5.87%	11.49%	5.45%	5.93%	11.38%
2003	4.27%	11.06%	15.33%	5.73%	8.74%	14.47%	5.59%	8.96%	14.55%

Note: Rates for 1994 are not comparable with rates shown for later years. Beginning 1995, Amortization Percent includes EIR payment percentage and Excess Investment Earnings Credit percentage. Also, beginning 1995, the funding method was changed from Frozen Initial Liability Actuarial Cost Method to Entry Age Normal Actuarial Cost Method. Beginning in 1997, the actuarial value of assets was changed from book value to a market related value.

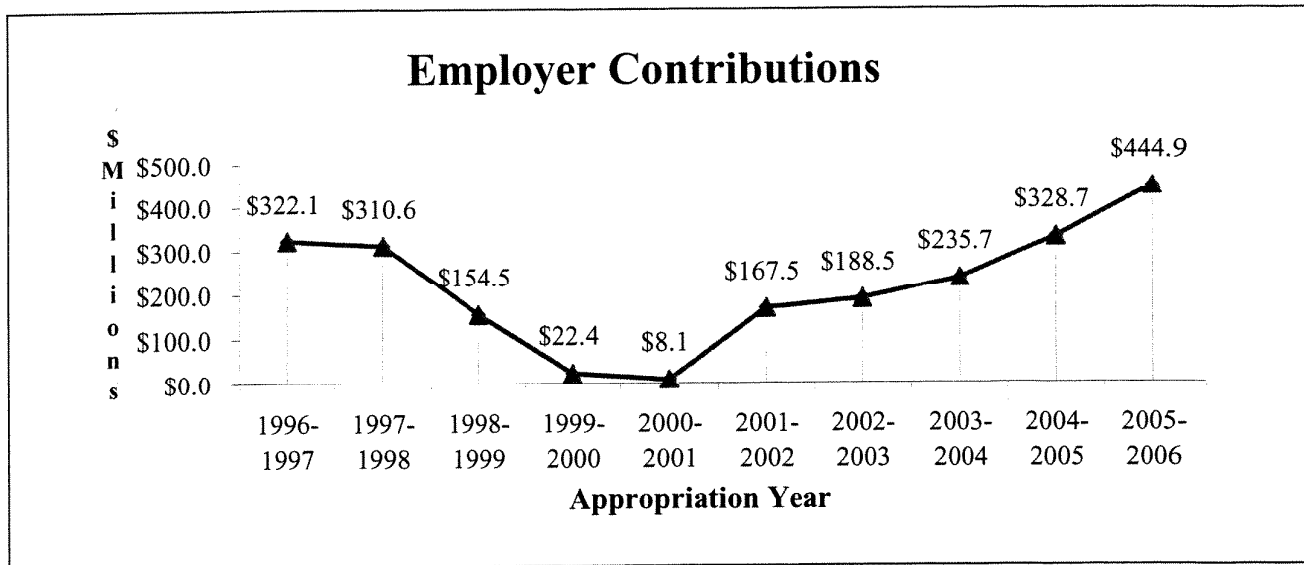
\*\* Schedule compiled by ERS Staff from actuary reports.

**Employer Appropriations to Pension Accumulation Fund** \*\*  
**Appropriation Years 1995-1996 to 2004-2005**  
 (Amounts in Millions)

Fiscal Year	Investment Yield Rate		Appropriation Year	Total Calculated Contribution	Investment Earnings Adjustment	Employer Appropriations
	Assumed for Actuarial Valuation	Actuarial Investment Return				
1993-1994	8.0%	7.76%	1996-1997	\$ 309.4	\$ 12.7	\$ 322.1
1994-1995	8.0%	6.19%	1997-1998	310.6	-	310.6
1995-1996	8.0%	9.99%	1998-1999	245.2	(90.7)	154.5
1996-1997	8.0%	13.72%	1999-2000	179.3	(156.9)	22.4
1997-1998	8.0%	11.68%	2000-2001	164.4	(156.3)	8.1
1998-1999	8.0%	12.33%	2001-2002	201.2	(33.7)	167.5
1999-2000	8.0%	12.58%	2002-2003	188.5	-	188.5
2000-2001	8.0%	8.91%	2003-2004	235.7	-	235.7
2001-2002	8.0%	2.62%	2004-2005	328.7	-	328.7
2002-2003	8.0%	0.18%	2005-2006	444.9	-	444.9

- Notes: (1) Beginning in appropriation year 1997-98, total calculated contribution includes appropriations for the Early Incentive Retirement program. 2001 results adjusted for reamortization of Unfunded Actuarial Accrued Liability and Early Incentive Retirement Program to June 30, 2029 under Act 147/2002.
- (2) \$99.4 million in additional employer contributions were deferred pursuant to the pension reform provisions in Act 327/1997.
- (3) Beginning with the 1996-97 fiscal year, the actuarial investment income is the sum of the expected net investment income based on the actuarial assumption of 8% and a four-year smoothing of the difference between the market value of assets at year-end and the expected actuarial value of assets. In prior years, the actuarial investment income was the sum of interest, dividends, and net realized gains less net realized losses and investment expenses.

\*\* Schedule compiled by ERS Staff from actuary reports.





### State Retirement System's Funded Ratios

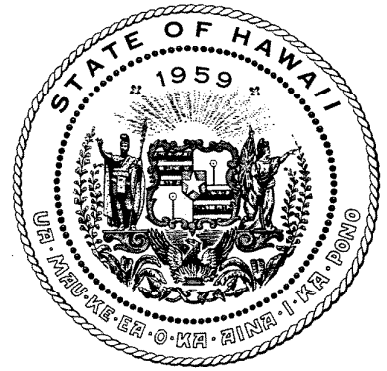
Funded Ratio	Number of General State Retirement Systems (excluding separate systems for teachers, school employees, or municipal employees)				
100% or more	19	Florida	114.8%	Virginia	104.1%
		California	111.9%	New Mexico	103.1%
		North Carolina	111.6%	Ohio	102.6%
		Delaware	109.6%	Georgia	101.7%
		Michigan	107.6%	Alaska	100.9%
		New Jersey	107.3%	Texas	100.2%
		Pennsylvania	107.2%	Alabama	100.2%
		Indiana	105.0%	Arkansas	100.1%
		Arizona	104.6%	Montana	100.0%
		North Dakota	104.2%		
90% to 99%	10	Tennessee	99.6%	Missouri	95.9%
		Maryland	98.0%	Washington	95.2%
		Vermont	97.4%	Utah	94.6%
		Wisconsin	97.1%	Iowa	92.6%
		South Dakota	96.7%	Wyoming	92.2%
80% to 89%	11	Kentucky	89.9%	<b>Hawaii *</b>	<b>84.0%</b>
		Colorado	87.9%	Kansas	83.6%
		Oregon	86.7%	Nevada	83.5%
		South Carolina	86.0%	Mississippi	83.4%
		Minnesota	85.0%	New Hampshire	82.1%
		Idaho	84.9%		
70% to 79%	6	Oklahoma	79.8%	West Virginia	75.4%
		Massachusetts	79.5%	Maine	72.9%
		Rhode Island	77.6%	Louisiana	70.2%
Less than 70%	2	Connecticut	61.6%	Illinois	53.7%

Source: Compiled from various sources by Gabriel, Roeder, Smith & Company

Note: GASB 25 funded ratios are shown for 48 general state retirement systems for valuation year(s) through December 31, 2002. A funded ratio is not shown for the Nebraska System because it is a defined contribution plan. A funded ratio for the New York System does not exist because of the use of the Aggregate Cost Method.

\* **Hawaii's GASB 25 funded ratio for the fiscal year ended June 30, 2003 was 75.9%.**

**EMPLOYEES'  
RETIREMENT SYSTEM  
OF THE  
STATE OF HAWAII**



**STATISTICAL  
SECTION**

## Participating Employers and Active Members

	As of March 31,			
	2003		2002	
	Active Members	Percentage	Active Members	Percentage
State of Hawaii	48,445	78%	48,242	78%
City & County of Honolulu	8,223	13	8,323	13
- Board of Water Supply	568	1	589	1
Hawaii County	2,028	3	2,056	3
Maui County	1,994	3	1,956	3
Kauai County	1,034	2	1,042	2
	62,292	100%	62,208	100%

## Revenues by Source

Year ended June 30	Employer appropriations (1)	Employer appropriations as a percentage of covered payroll (2)	Member contributions	Net investment income (3)	Total
1994	\$298,723,670	14.72 %	\$63,288,694	\$ 402,487,400	\$ 764,499,764
1995	192,536,598	9.24	65,720,847	340,909,684	599,167,129
1996	288,070,687	14.48	53,766,483	1,176,991,469 *	1,518,828,639
1997	322,141,010	15.59	54,364,380	1,293,952,952	1,670,458,342
1998	310,627,135	14.54	56,168,443	1,251,839,166	1,618,634,744
1999	154,469,844	7.06	55,702,647	904,809,348	1,114,981,839
2000	22,392,100	0.98	57,358,185	695,151,054	744,901,339
2001	8,131,900	0.39	54,489,895	(679,605,059)	(616,983,264)
2002	167,458,900	6.52	55,451,218	(503,995,090)	(281,084,977)
2003	190,586,276	7.01	57,214,521	146,140,751	393,941,548

(1) Employer appropriations were made in accordance with actuarially determined contributions requirements. Prior to Fiscal Year 1996, employer appropriations included funding for administrative expenses.

(2) Covered payroll as reported by the actuary, effective March 31 of each year.

(3) Prior to Fiscal Year 1997, assets were reported at cost, thus net investment income includes only realized gains and losses, plus dividends, interest and other earnings. Effective July 1, 1996, ERS adopted GASB Statement 25 changing from reporting investments at cost to reporting investments at fair value (includes unrealized gains and losses).

\* Includes recognition of previously deferred income and net unrealized gains and losses totaling \$594,325,421 as a result of adoption of GASB Statement 25.

### Expenses by Type

Year ended June 30,	Total Benefit Payments	Refunds to Members	Administrative Expenses	Other	Total
1994	\$328,148,851	\$3,244,076	\$2,875,676	\$ -	\$334,268,603
1995	405,551,920	2,653,593	2,896,684	-	411,102,197
1996	454,078,620	3,634,085	2,960,240	-	460,672,945
1997	432,732,753	3,963,721	3,217,348	-	439,913,822
1998	442,997,525	3,791,848	3,331,700	-	450,121,073
1999	478,744,074	4,454,658	3,775,942	29,272	487,003,946
2000	514,401,221	4,318,654	4,168,717	-	522,888,592
2001	544,906,809	3,892,377	4,893,712	-	553,692,898
2002	565,559,305	3,244,334	5,754,832	-	574,558,471
2003	602,805,080	2,605,602	6,780,824	2,800	612,194,306

### Benefit Payments by Type

Year ended June 30,	Pension Benefit Payments				Refund Option Payments	Total Benefit Payments
	Service	Disability	Death	Subtotal		
1994	\$281,295,215	\$6,311,982	\$4,000,781	\$291,607,978	\$36,540,873	\$328,148,851
1995	315,636,011	6,311,914	2,843,789	324,791,714	80,760,206	405,551,920
1996	376,976,563	6,399,486	3,358,029	386,734,078	70,978,627	454,078,620
1997	398,471,144	7,424,424	4,626,452	410,522,020	22,210,733	432,732,753
1998	410,622,492	7,633,183	3,770,474	422,026,149	20,971,376	442,997,525
1999	431,410,418	8,055,791	4,581,030	444,047,239	34,696,835	478,744,074
2000	460,293,937	8,305,398	2,644,579	471,243,914	43,157,307	514,401,221
2001	491,957,932	8,950,018	2,369,546	503,277,496	41,629,313	544,906,809
2002	518,579,831	9,336,267	2,465,179	530,381,277	35,178,028	565,559,305
2003	557,439,020	10,046,637	1,749,855	569,235,512	33,568,568	602,805,080

## Average Monthly Service Pensions by Years of Credited Service

As of March 31,		Years of Credited Service							All
		0-9	10-14	15-19	20-24	25-29	30-34	35+	
1994	Average Monthly Benefit	\$185	\$364	\$587	\$854	\$1,287	\$1,597	\$1,649	\$1,057
	Number of Active Retirants	1,647	2,626	2,507	2,834	4,591	4,611	2,467	21,283
1995	Average Monthly Benefit	\$191	\$377	\$609	\$882	\$1,388	\$1,681	\$1,772	\$1,143
	Number of Active Retirants	1,603	2,782	2,664	2,991	5,454	5,253	2,706	23,453
1996	Average Monthly Benefit	\$196	\$387	\$629	\$911	\$1,467	\$1,170	\$1,882	\$1,220
	Number of Active Retirants	1,554	2,865	2,724	3,090	6,068	5,758	2,867	24,926
1997	Average Monthly Benefit	\$201	\$400	\$659	\$943	\$1,539	\$1,852	\$1,985	\$1,276
	Number of Active Retirants	1,515	2,903	2,781	3,152	6,146	5,741	2,839	25,077
1998	Average Monthly Benefit	\$207	\$411	\$685	\$978	\$1,590	\$1,918	\$2,060	\$1,321
	Number of Active Retirants	1,457	2,932	2,823	3,190	6,181	5,764	2,826	25,173
1999	Average Monthly Benefit	\$212	\$421	\$710	\$1,010	\$1,645	\$1,986	\$2,143	\$1,369
	Number of Active Retirants	1,409	3,012	2,882	3,266	6,306	5,879	2,854	25,608
2000	Average Monthly Benefit	\$221	\$426	\$730	\$1,032	\$1,691	\$2,044	\$2,210	\$1,414
	Number of Active Retirants	1,368	3,107	2,941	3,336	6,435	6,139	2,936	26,262
2001	Average Monthly Benefit	\$225	\$435	\$746	\$1,058	\$1,739	\$2,101	\$2,269	\$1,462
	Number of Active Retirants	1,322	3,192	3,001	3,416	6,598	6,508	3,052	27,089
2002	Average Monthly Benefit	\$241	\$467	\$800	\$1,140	\$1,837	\$2,200	\$2,380	\$1,523
	Number of Active Retirants	1,366	3,443	3,098	3,459	6,970	6,592	2,669	27,597
2003	Average Monthly Benefit	\$241	\$449	\$788	\$1,125	\$1,837	\$2,216	\$2,384	\$1,533
	Number of Active Retirants	1,298	3,535	3,166	3,581	7,127	7,037	2,802	28,546

## Benefit Payments by Retirement Type and Option As of March 31, 2003

### Retired Contributory Members

Monthly Benefit	Number of Recipients	Type of Retirement *					Retirement Option						
		1	2	3	4	5	Max	Opt. 1	Opt. 2	Opt. 3	Opt. 4	Opt. 5	Other
\$ 1 - 300	1,827	1,574	24	12	4	213	471	515	182	62	202	386	9
301 - 600	3,170	2,698	179	64	10	219	371	298	159	68	895	1,373	6
601 - 900	2,960	2,564	107	96	11	182	319	216	126	57	1,106	1,131	5
901 - 1,200	2,730	2,450	39	86	10	145	243	196	93	54	1,078	1,059	7
1,201 - 1,500	2,515	2,351	17	51	6	90	191	153	91	27	1,074	973	6
1,501 - 1,800	2,384	2,278	10	26	6	64	152	118	84	20	1,020	985	5
1,801 - 2,100	2,352	2,279	2	17	4	50	126	67	51	20	937	1,147	4
2,101 - 2,400	2,168	2,104	7	9	3	45	126	54	54	32	878	1,021	3
2,401 - 2,700	1,752	1,718	2	4	3	25	143	54	61	26	857	609	2
2,701 - 3,000	1,263	1,244	-	2	-	17	125	39	35	26	704	334	-
3,001	2,406	2,358	-	8	4	36	297	93	132	79	1,307	498	-
	25,527	23,618	387	375	61	1,086	2,564	1,803	1,068	471	10,058	9,516	47

### Retired Noncontributory Members

Monthly Benefit	Number of Recipients	Type of Retirement *					Retirement Option				
		1	2	3	4	5	Max	Opt. A	Opt. B	Opt. C	Other
\$ 1 - 300	751	508	63	27	65	88	310	110	215	45	71
301 - 600	1,318	971	159	25	42	121	691	182	321	82	42
601 - 900	745	586	72	9	25	53	411	114	145	54	21
901 - 1,200	521	444	32	-	3	42	271	106	96	46	2
1,201 - 1,500	453	404	25	1	3	20	236	78	97	42	-
1,501 - 1,800	484	465	4	-	2	13	285	79	61	58	1
1,801 - 2,100	655	638	4	-	-	13	458	80	50	67	-
2,101 - 2,400	410	402	1	-	-	7	303	39	30	38	-
2,401 - 2,700	209	203	-	-	-	6	134	42	26	7	-
2,701 - 3,000	127	123	-	-	2	2	76	32	12	7	-
3,001	189	184	-	-	-	5	126	35	20	8	-
	5,862	4,928	360	62	142	370	3,301	897	1,073	454	137

\* Type of Retirement

- 1 – Normal retirement for age & service
- 2 – Ordinary disability retirement
- 3 – Occupational disability retirement
- 4 – Survivor payment – death in service
- 5 – Survivor payment – normal or disability retirement

Note: Refer to Plan Summary in the Introductory Section for descriptions of the types of retirements and benefit options selected by the members.