



**ALAMEDA COUNTY EMPLOYEES'
RETIREMENT ASSOCIATION**

Oakland, California 94612

A Component Unit of County of Alameda



Comprehensive Annual Financial Report

For the years ended December 31, 1997 and 1996

Comprehensive Annual Financial Report

For the years ended December 31, 1997 and 1996

Issued By

Charles F. Conrad

General Manager and Chief Investment Officer

Catherine E. Walker

Accounting and Operations Manager



ALAMEDA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

Oakland, California 94612

A Component Unit of County of Alameda

Contents

Introductory Section

| | |
|---|----|
| Mission Statement, Commitment, Goals | 2 |
| Letter of Transmittal | 3 |
| Certificate of Achievement for Excellence in Financial Reporting | 9 |
| Members of the Board of Retirement | 10 |
| Administrative Organization Chart | 11 |
| List of Professional Consultants | 12 |

Financial Section

| | |
|--|----|
| Independent Auditors' Report | 14 |
| FINANCIAL STATEMENTS: | |
| Statements of Plan Net Assets | 15 |
| Statements of Changes in Plan Net Assets | 16 |
| Notes to Financial Statements | 17 |
| SUPPLEMENTAL SCHEDULES: | |
| Schedule of Funding Progress | 26 |
| Schedule of Employer Contributions | 26 |
| Notes to Supplemental Schedules | 27 |
| Independent Auditors' Report on Compliance and Internal Control Structure over Financial Reporting Based on an Audit of Financial Statements Performed in Accordance with <i>Government Auditing Standards</i> | 28 |
| OTHER SUPPLEMENTAL INFORMATION: | |
| Schedule of Administrative Expenses | 29 |
| Fees and Other Investment Expenses Summary | 30 |
| Schedule of Payments to Consultants | 30 |

Investment Section

| | |
|--|----|
| Chief Investment Officer's Report | 32 |
| Asset Allocation | 34 |
| List of Investment Professionals | 34 |
| Investment Summary | 35 |
| Investment Results | 36 |
| Largest Stock and Bond Holdings (By Market Value) | 37 |
| Schedule of Management Fees and Commissions | 38 |

Actuarial Section

| | |
|---|----|
| Actuary's Certification Letter | 42 |
| Summary of Assumptions and Funding Method | 43 |
| Schedule of Active Member Valuation Data | 45 |
| Schedule of Retirees and Beneficiaries Added to and Removed from Retiree Payroll | 46 |
| Actuarial Analysis of Financial Experience | 46 |
| Solvency Test | 47 |
| Summary of Plan Provisions | 48 |
| Probabilities of Separation Prior to Retirement | 50 |

Statistical Section

| | |
|--|----|
| Revenue by Source | 57 |
| Expenses by Type | 57 |
| Schedule of Benefit Expenses by Type | 58 |
| Schedule of Retiree Members by Type of Benefit | 59 |
| Schedule of Average Benefit Payment Amounts | 60 |
| Participating Employers and Active Members | 61 |
| Employer Contribution Rates | 62 |

*Clockwise from top: Receptionist Ingrid Culbertson;
Board Members Marian Bamford Smith, Charles Harrington
and James Muniz; and 1998 Board Member William Schaff*

Introduction



ACERA is a retirement system, organized under the 1937 Act, County Employees Retirement Law, which provides retirement, disability, and death benefits to the employees, retirees and former employees of the County of Alameda, and certain other public employers.

ACERA's primary responsibilities include: Administration of the trust fund, delivery of retirement, disability and death benefits to eligible members, administration of health care and cost-of-living programs, and general assistance in retirement and related benefits.

Mission Statement:

To provide ACERA members and employers with flexible, cost-effective, participant-oriented benefits through prudent investment management and superior member services.

Board and Staff Commitment:

To carry out our Mission through a competent, professional, impartial and open decision making process. In providing benefits and services, all persons will be treated fairly and with courtesy and respect. Investments will be managed to balance the need for security with superior performance. We expect excellence in all activities. We will also be accountable and act in accordance with the law.

Goals:

- I. To create an environment in which Board Members can maximize their performance as trustees.
- II. To improve the level of benefits and delivery of services provided to members and employees.
- III. To improve communications with members and employers.
- IV. To attract, develop and retain competent and professional staff.
- V. To achieve and maintain top quartile investment performance as measured by the Public Fund Universe.



Alameda County Employees' Retirement Association
Board of Retirement
Oakland, California

Letter of Transmittal

Dear Board Members:

As General Manager of the Alameda County Employees Retirement Association (ACERA), I am pleased to present this Comprehensive Annual Financial Report (CAFR) for the years ended December 31, 1997 and 1996.

1997 was a year of change and growth. Association assets grew, the financial stability of the plan further strengthened, member benefits were improved, new facilities and staff were added and one-third of the Board of Retirement members ended their service at the close of 1997.

The Comprehensive Annual Financial Report

The Comprehensive Annual Financial Report (CAFR) of the Alameda County Employees' Retirement Association (ACERA) for the years ended December 31, 1997 and December 31, 1996, is submitted herewith. Responsibility for both accuracy of the data, and the completeness and fairness of the presentation, rests with ACERA's management. It is our intent to ensure that the presentation of financial information is accurate and fair, and all material disclosures have been made. The CAFR is divided into five sections:

INTRODUCTORY SECTION: Contains ACERA's Mission, Commitment and Goals, A Letter of Transmittal, the Certificate of Achievement, a list of Board of Retirement members, an overview of ACERA's Organizational Chart, and a list of Professional Consultants.

FINANCIAL SECTION: Presents the Independent Auditors' Report which contains ACERA's financial condition and funding status, the financial statements of the system and required supplementary information.

INVESTMENT SECTION: Contains a report on investment activity, investment policies, investment results and various investment schedules.

ACTUARIAL SECTION: Provides an overview of the funding status of the Association and other related actuarial information, contains the Actuary's Certification Letter and the results of the annual actuarial valuation.

STATISTICAL SECTION: Contains significant detailed data pertaining to ACERA.

I trust that you and the members of ACERA will find this CAFR helpful in understanding the Association, and our commitment to financial integrity and member service.

ACERA and its Services

Established by the Alameda County Board of Supervisors by Ordinance No. 446, dated October 21, 1947, operative January 1, 1948, and governed by the provisions of the County Employees' Retirement Law of 1937, the Alameda County Employees' Retirement Association (ACERA) provides retirement allowances and other benefits to the safety and general members employed by Alameda County and the following special districts:

Livermore Area Recreation & Park District

Housing Authority of Alameda County

Alameda County Schools

ACERA provides lifetime retirement, disability, and death benefits to its general and safety members. In addition, ACERA administers retiree health care, retiree dental care and cost-of-living programs. The Association is also responsible for the prudent investment of member and employer contributions, and defraying reasonable expenses of administration.

The Alameda County Employees' Retirement Association Board of Retirement is responsible for establishing policies governing the administration of the retirement plan, making benefit determinations and managing the investment of the system's assets. The Board operates under authority granted by Article XVI of the Constitution of the State of California.

Article XVI, Section 17(b) of the Constitution of the State of California provides that "the members of the Retirement Board of a public retirement system shall discharge their duties...solely in the interest of, and for the exclusive purpose of providing benefits to, participants and their beneficiaries, minimizing employer contributions thereto, and defraying reasonable expenses of administering the system. A Retirement Board's duty to its participants and their beneficiaries shall take precedence over any other duty." Section 17(a) further provides that the Board has..." the sole and exclusive responsibility to administer the system in a manner that will assure prompt delivery of benefits and related services to the participants and their beneficiaries."

The ACERA Board of Retirement is a nine (9) member Board, four (4) of whom are appointed by the Alameda County Board of Supervisors, four (4) of whom are elected by ACERA's membership and the County Treasurer who is an ex-officio member. Board members, with the exception of the County Treasurer, serve three (3) year terms in office, with no term limits.

The four (4) elected members are elected by the following members of ACERA:

Two (2) Board members are elected by General members of ACERA

One (1) Board member is elected by Safety members of ACERA

One (1) Board member is elected by Retired members of ACERA

The Board of Retirement oversees the General Manager and staff in the performance of their duties in accordance with the 1937 Act, County Employees Retirement Law, ACERA's by-laws and the Board policies.

Service Efforts and Accomplishments

In 1997, ACERA instituted a program to reimburse retired members for the cost of their Part B Medicare premiums. Also, retired members who reside outside the service area of ACERA's basic health plans became eligible for an ACERA reimbursement for their privately purchased coverage. The BeneSys Benefits Administration System became fully operational and the Board initiated an extensive survey of retiree benefit and service level requirements.

Accounting System and Reports

Management of ACERA is responsible for establishing and maintaining an internal control structure designed to ensure that ACERA assets are protected from loss, theft, or misuse. Responsibility for the accuracy, completeness, and fair presentation of the information, and all disclosures, rests with ACERA. The accounting firm Williams, Adley & Co., LLP, provides both financial statement and internal control audit services. The financial attest audit ensures ACERA's financial statements are presented in conformity with generally accepted accounting principles and are free from material misstatement. The internal control audit ensures ACERA's operating policies and procedures are being adhered to and are sufficient to safeguard ACERA's assets.

This report has been prepared in accordance with generally accepted accounting principles as promulgated by the Governmental Accounting Standards Board (GASB) and its predecessor, the National Council on Governmental Accounting. The financial statements are presented in accordance with guidelines established by GASB Statement No. 25, Financial Reporting for Defined Benefit Plans.

ACERA transactions are reported on the accrual basis of accounting. Revenues are taken into account when earned, regardless of the date of collection. Expenses are recorded when the corresponding liabilities are incurred, regardless of when the payment is made.

Revenues

ACERA's revenue comes from the earnings of the investment portfolio and collection of employer and employee contributions. Gross revenue at December 31, 1997 and December 31, 1996 amounted to \$536,648,027 and \$627,380,847, respectively. (See Table 1, page 6.)

The fair value of the investment portfolio, net of related liabilities, reached \$3.2 Billion, an increase of \$544.1 million from the previous year. An explanation of investment policies, investment strategies and the portfolio's composition is included in the Investment Section of this report.

Expenses

ACERA was created to provide lifetime retirement benefits, survivor benefits and permanent disability benefits to qualified members and their beneficiaries. The cost of such programs includes recurring benefit payments, as designated by the plan, refund of contributions to terminated employees and the cost of administering the system. Benefit payments and other expenses at December 31, 1997 were consistent with the prior year and increased by \$7,181,634 or 8% percent. (See Table 2, page 6.)

Table 1: Contributions and Investment Earnings

| | 1997 | 1996 | Increase/ (Decrease) Amount | Percent Change |
|-------------------------------|----------------------|----------------------|-----------------------------------|-------------------|
| Member Contributions | \$ 32,684,638 | \$ 31,196,550 | \$ 1,488,088 | 5% |
| Employer Contributions | 23,471,769 | 21,153,565 | 2,318,204 | 10% |
| Pension Revenue Bond Proceeds | — | 283,485,000 | (283,485,000) | -100% |
| Investment Earnings | 480,486,364 | 291,523,569 | 188,962,795 | 39% |
| Miscellaneous | 5,256 | 22,163 | (16,907) | -322% |
| Total | \$536,648,027 | \$627,380,847 | \$ (90,732,820) | -17% |

Table 2: Benefit Payments and Other Expenses

| | 1997 | 1996 | Increase/ (Decrease) Amount | Percent Change |
|------------------|---------------------|---------------------|-----------------------------------|-------------------|
| Retiree Benefits | \$81,285,933 | \$75,750,034 | \$5,535,899 | 7% |
| Administrative | 3,184,028 | 2,078,220 | 1,105,808 | 35% |
| Health Insurance | 5,105,210 | 4,650,146 | 455,064 | 9% |
| Actuarial | 116,636 | 146,816 | (30,180) | -26% |
| Refunds | 4,391,437 | 4,276,394 | 115,043 | 3% |
| Total | \$94,083,244 | \$86,901,610 | \$7,181,634 | 8% |

Actuarial Funding Status

ACERA's funding objective is to meet long-term benefit promises by retaining a well-funded plan status and obtaining superior investment returns while minimizing employer contributions. Employer contributions remain approximately level as a percent of member payroll. The greater the level of overall plan funding, the larger the ratio of assets accumulated to the actuarial accrued liability and the greater the level of investment potential. The advantage of a well-funded plan is that the benefits earned by participants are funded during their working careers and not by future generations of taxpayers. At the present time, ACERA enjoys a funding ratio in excess of 100%.

ACERA engages an independent actuarial consulting firm, William M. Mercer, Incorporated, to conduct annual actuarial valuations. Recommendations are presented to ACERA's Board for consideration. Triennially, an analysis is made of the appropriateness of all economic and non-economic assumptions. The last triennial analysis was performed for the period from January 1, 1993 to December 31, 1995, and certain changes to non economic assumptions were adopted by the Board.

The actuarial accrued liability of ACERA at December 31, 1997 and December 31, 1996 amount to \$2,218,319,000 and \$2,067,946,000, respectively. The actuarial value of assets at December 31, 1997 and December 31, 1996 amounted to \$2,558,859,000 and \$2,285,867,000, respectively.

The County of Alameda issued \$283,485,000 of pension obligation bonds on December 19, 1996. This recent bond issue, together with \$307,923,000 issued by the County on April 20, 1995, satisfied the Unfunded Actuarial Accrued Liability (UAAL) of the County of Alameda as presently calculated. A more detailed discussion of funding is provided in the Actuarial Section of this report.

Investments

General Authority

Article XVI, Section 17 of the constitution of the State of California provides that “Notwithstanding any other provisions of law or this Constitution, the Retirement Board of a public pension or retirement system shall have plenary authority and fiduciary responsibility for investment of moneys and administration of the system...”

Article XVI, Section 17(a) of the Constitution of the State of California provides that “the Retirement Board of a public pension or retirement system shall have the sole and exclusive fiduciary responsibility over the assets...”

Prudent Expert Duty

Article XVI, Section 17(c) of the Constitution of the State of California, provides that “the members of the Retirement Board of a public pension or retirement system shall discharge their duties... with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character and with like aim.” By permitting further diversification of investments within a fund, the prudent expert standard may enable a fund to reduce overall risk and increase returns. A summary of the asset allocation can be found in the investment section of this report.

The prudent expert rule permits the Board to establish an investment policy based upon professional advice and counsel and allows for delegation of investment authority to professional investment advisors. The Statement of Investment Policy outlines the responsibility for the investment of the fund and the degree of risk that is deemed appropriate for the fund. Investment advisors are to execute the investment policy in accordance with Board policy and guidelines.

For the years ended December 31, 1997 and December 31, 1996 ACERA investments provided a 17.9% and 14.6% rate of return, respectively. ACERA’s annualized rate of return over the last three years was 19.7%. Over the last five years, it was 13.8%.

Professional Service

Professional Consultants and Investment Managers are retained by the Board of Retirement to provide professional services essential to the effective and efficient operation of ACERA.

An opinion from the certified public accountant and the actuary are included in this report. Professional Consultants and Investment Managers retained by the Board are listed on page 12 and page 34, respectively, of this report.



Catherine E. Walker and Charles F. Conrad

Certificate of Achievement

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Alameda County Employees' Retirement Association (ACERA) for its comprehensive annual financial report (CAFR) for the fiscal year ended December 31, 1996. The Certificate of Achievement is a prestigious national award recognizing conformance with the highest standards for preparation of state and local government financial reports.

In order to be awarded a Certificate of Achievement, a government unit must publish an easily readable and efficiently organized comprehensive annual financial report, whose contents conform to program standards. The CAFR must satisfy both generally accepted accounting principals and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. The fiscal year ended December 31, 1996 was the first year ACERA submitted its CAFR and received a Certificate of Achievement. We believe our current report continues to conform to the Certificate of Achievement program requirements, and we are submitting it to GFOA.

Acknowledgments

The compilation of this report reflects the combined effort of ACERA's staff under the leadership of the Board of Retirement. It is intended to provide complete and reliable information with respect to the Board's stewardship of ACERA.

This report is being mailed to all employers and members of the Association and employee and retiree organizations. Their cooperation contributes significantly to the success of ACERA. We hope our employers and our members find this report informative.

On behalf of the Board of Retirement, I would like to take this opportunity to express my gratitude to the staff, the advisors, and to the many people who have worked so diligently to assure the successful operation of ACERA.

Respectfully submitted,

Charles F. Conrad

Charles F. Conrad
General Manager

April 17, 1998

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Alameda County
Employees' Retirement
Association, California

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended
December 31, 1996

A Certificate of Achievement for Excellence in Financial Reporting is presented by the Government Finance Officers Association of the United States and Canada to government units and public employee retirement systems whose comprehensive annual financial reports (CAFRs) achieve the highest standards in government accounting and financial reporting.



Linda K. Savitsky
President

Jeffrey L. Essler
Executive Director

Members of the Board of Retirement

At December 31, 1997



Back row (left to right)

Paul Trudell
Elected by General Members

Dr. Norvel Smith
Appointed by the Board of Supervisors

Marian Bamford Smith
Appointed by the Board of Supervisors

Wilma Chan
Appointed by the Board of Supervisors
Member of the Board of Supervisors

Donald R. White
Treasurer-Tax Collector
County of Alameda
Ex-officio Member

Charles L. Harrington
Elected by Retired Members

Front row (left to right)

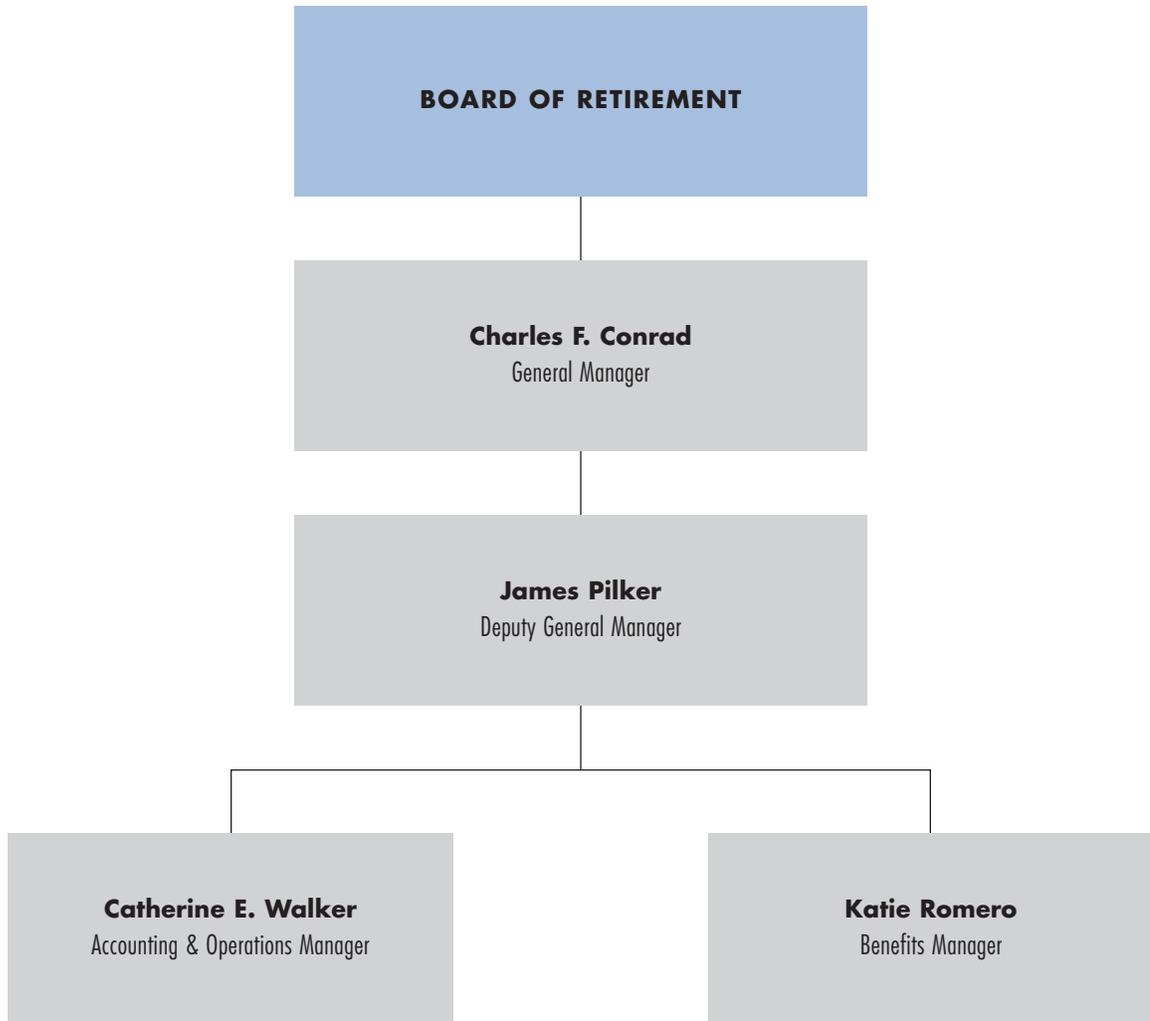
Jerry R. Jacobs, *Secretary*
Elected by General Members

Dan McClelland, *Chairman*
Elected by Safety Members

James R. Muniz, *Vice Chairman*
Appointed by the Board of Supervisors

Administrative Organization Chart

At December 31, 1997



List of Professional Consultants

Custodian

Bank of New York

Actuary

William M. Mercer, Co.

Legal Counsel

County Counsel

Baker & McKenzie

Morrison & Foerster, LLP

Jones, Day, Reaves & Pogue

Auditor

Williams, Adley & Co., LLP

Computer Services

Carolyn Ford & Associates

Client Services & Integration, Inc.

Software Support

Advent Software

Benesys Information System

Rimerman Consulting

Mortgage Loan Services

Wells Fargo Bank

Publications, Layout & Design

Laura Myers Design

Note: List of Investment Professionals is located on page 34 of the Investment Section of this report.

*Clockwise from top: Catherine E. Walker
with Art Spencer (left) and Ed Karas;
Brenda Sanders (left) and Helen Wright;
and Alex Acquah*

Financial





WILLIAMS, ADLEY & COMPANY, LLP
Management Consultants
Certified Public Accountants

Board of Retirement
Alameda County Employees' Retirement Association
Oakland, California

Independent Auditors' Report

We have audited the accompanying statements of plan net assets of the Alameda County Employees' Retirement Association ("ACERA"), a component unit of the County of Alameda, as of December 31, 1997 and 1996, and the related statements of changes in plan net assets for the years then ended. These financial statements are the responsibility of ACERA's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards 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 audits 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, net assets available for benefits of, and changes in the position of ACERA, as of December 31, 1997 and 1996, and the net assets available for benefits for the two years then ended in conformity with generally accepted accounting principles.

In accordance with Government Auditing Standards, we have also issued a report dated April 17, 1998 on our consideration of ACERA's compliance and internal control structure over financial reporting.

Our audits were made for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental schedules presented on page 26, are presented for purposes of additional analysis and are a required part of the basic financial statements. Such supplemental schedules have been subjected to the auditing procedures applied in the audits of the basic financial statements and, in our opinion, are fairly stated in all material respects in relation to the basic financial statements taken as a whole.

Williams, Adley & Company, LLP

April 17, 1998

ALAMEDA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

Statements of Plan Net Assets

| | December 31, | |
|---|------------------------|------------------------|
| | 1997 | 1996 |
| Assets | | |
| Cash and Deposits | \$ 33,251 | \$ 4,072,372 |
| <i>Receivables:</i> | | |
| Contributions | 175,071 | 189,305 |
| Accrued Interest | 5,237,798 | 5,278,754 |
| Dividends | 920,125 | 918,112 |
| Real Estate | 1,421,625 | 2,286,743 |
| Securities Lending | 45,462 | 35,011 |
| Sale of Securities | 10,190,991 | 4,926,743 |
| Sale of Real Estate | 19,700,000 | |
| Others | 3,813 | 31,199 |
| Total Receivables | 37,694,885 | 13,665,867 |
| Prepaid Expenses | 41,473 | |
| <i>Investments, at Fair Value:</i> | | |
| Short-Term Investments | 141,684,345 | 27,847,969 |
| Government Bonds | 177,881,635 | 234,340,840 |
| Corporate Bonds | 208,810,289 | 119,811,481 |
| Bond Market Fund | 390,219,580 | 355,729,037 |
| Corporate Stocks | 819,222,371 | 663,633,514 |
| Domestic Equity Index Fund | 731,811,865 | 748,364,727 |
| International Equity Co-mingled Fund | 346,535,968 | 200,986,865 |
| Real Estate Properties | 105,802,970 | 101,343,693 |
| Real Estate Trusts | 36,820,586 | 69,164,855 |
| Real Estate Mortgage Loans | 1,476,974 | 1,694,637 |
| AFL-CIO Housing Trust | 13,361,247 | 12,363,857 |
| Securities Lending Collateral | 219,385,620 | 113,585,362 |
| Total Investments | 3,193,013,450 | 2,648,866,837 |
| <i>Fixed Assets (Net of Accumulated Depreciation of \$311,309 and \$353,315):</i> | | |
| Equipment and Furniture | 1,148,209 | 227,197 |
| Leasehold Improvements | 241,772 | 14,418 |
| Total Fixed Assets | 1,389,981 | 241,615 |
| Total Assets | 3,232,173,040 | 2,666,846,691 |
| Liabilities | | |
| Prepaid Employer and Member Contributions | 24,424,426 | 22,177,941 |
| Purchase of Securities | 18,463,561 | 5,360,834 |
| Accrued Investment and Actuary Expenses | 2,124,914 | 1,636,233 |
| Accrued Administration Expenses | 471,998 | 350,807 |
| Member Refunds Payable | 328,081 | 216,038 |
| Securities Lending Liability | 219,385,620 | 113,585,362 |
| Healthcare Deductions Payable | 1,526,432 | 636,251 |
| Total Liabilities | 266,725,032 | 143,963,466 |
| Net Assets Held in Trust for Pension Benefits | \$2,965,448,008 | \$2,522,883,225 |

(See accompanying notes to the financial statements and Schedule of Funding Progress on Page 26.)

Statements of Changes in Plan Net Assets

| | December 31, | |
|--|------------------------|------------------------|
| | 1997 | 1996 |
| Additions | | |
| <i>Contributions:</i> | | |
| Members | \$ 32,684,638 | \$ 31,196,550 |
| Employer | | |
| Normal | 23,471,769 | 21,153,565 |
| Pension Obligation Bond Proceeds | | 283,485,000 |
| Total Contributions | 56,156,407 | 335,835,115 |
| <i>Investment Income:</i> | | |
| Net Appreciation in Fair Value of Investments | 437,819,878 | 255,998,721 |
| Interest | 29,747,454 | 24,227,666 |
| Dividends | 11,264,701 | 10,097,464 |
| Real Estate | 18,466,691 | 13,917,888 |
| Securities Lending | 11,055,721 | 3,100,376 |
| Total Investment Income | 508,354,445 | 307,342,115 |
| Less: Investment Expenses | (27,868,081) | (15,818,546) |
| Net Investment Income | 480,486,364 | 291,523,569 |
| Miscellaneous Income | 5,256 | 22,163 |
| Total Additions | 536,648,027 | 627,380,847 |
| Deductions | | |
| <i>Benefit Payments:</i> | | |
| Service Retirement | 79,869,841 | 74,613,616 |
| Death | 963,631 | 662,712 |
| Post Retirement | | |
| Health Insurance | 5,105,210 | 4,650,146 |
| Supplemental Cost of Living | 452,461 | 473,706 |
| Total Benefit Payments | 86,391,143 | 80,400,180 |
| Refunds | 4,391,437 | 4,276,394 |
| <i>Administration:</i> | | |
| General | 3,184,028 | 2,078,220 |
| Actuarial | 116,636 | 146,816 |
| Total Administration | 3,300,664 | 2,225,036 |
| Total Deductions | 94,083,244 | 86,901,610 |
| Excess of Additions over Deductions | 442,564,783 | 540,479,237 |
| Net Assets Held in Trust for Pension Benefits | | |
| Beginning of Year | 2,522,883,225 | 1,982,403,988 |
| End of Year | \$2,965,448,008 | \$2,522,883,225 |

(See accompanying notes to the financial statements.)

Notes to Financial Statements

December 31, 1997 and 1996

1. Plan Description

Alameda County Employees' Retirement Association ("ACERA") began operations on January 1, 1948 and is governed by the California Constitution, the County Employees Retirement Law of 1937 and the bylaws, procedures and policies adopted by the Board of Retirement. ACERA operates as a cost-sharing multi-employer defined benefit plan for Alameda County and three participating Special Districts located in the County but not under the control of the County Board of Supervisors. ACERA provides retirement, disability and death benefits to its safety and general members, and administers the retiree health benefit program. All risks and costs, including benefit costs, are shared by the participating entities. One actuarial valuation is performed annually for the system as a whole.

Plan Membership

All full-time employees of participating entities appointed to permanent positions are required by statute to become members of ACERA. Safety membership includes probation officers and employees who are active in law enforcement, fire fighting and juvenile hall group counseling. General membership includes all other occupational classifications.

ACERA's membership consisted of:

| | December 31, | |
|---|---------------|---------------|
| | 1997 | 1996 |
| Retirees and beneficiaries currently receiving benefits | 5,202 | 5,111 |
| Active Employees: | | |
| Vested | 6,774 | 6,952 |
| Nonvested | 2,473 | 2,102 |
| Terminated but not yet receiving benefits | 857 | 831 |
| Total membership | 15,306 | 14,996 |

Benefit Provisions

Benefits in the system vest after five years of credited service. Vested general members may retire at age fifty or older with ten or more years of qualifying service, at any age with thirty or more years of qualifying service, or seventy or older regardless of service credit. Vested safety members may retire at age fifty or older with ten or more years of qualifying service, or at any age with twenty or more years of qualifying service. Members who qualify are entitled to monthly retirement benefits for life. Service retirement benefits are based on final average salary, age at retirement and length of service as of retirement date, according to applicable statutory formulae.

The service retirement benefits within the plan are tiered based on their membership entry date. Members with an entry date prior to July 1, 1983 belong to Tier 1 while those with an entry date on or after July 1, 1983 belong to Tier 2. Tier 1 members contribute at a higher rate and therefore, receive higher retirement benefits.

ACERA is integrated with Social Security for all employees except police, fire, and juvenile hall group counselors. For members covered by Social Security, the retirement benefit is reduced based on the number of years of Social Security coverage as an employee of the County or District times a reduction factor.

Cost-of-Living Adjustment

Retirement benefits are subject to postretirement cost-of-living adjustments (“COLA”) based upon changes in the Consumer Price Index for the San Francisco Bay Area. Annual COLA increases/decreases are capped at 3% for Tier 1 members and 2% for Tier 2 members.

Supplemental Cost-of-Living

In addition to basic cost-of-living increases, the California Government Code also provides the Board of Retirement the authority to grant supplemental COLA increases to retirees who have experienced inflation of over 25% above their basic COLA increases. Funding for supplemental COLA increases is provided solely through the Supplemental Retiree Benefit Reserve (“SRBR”), which derives its funding from excess investment earnings. Supplemental COLA increases are subject to approval by the Board of Retirement on an annual basis providing sufficient excess earnings are available in the SRBR.

2. Summary of Significant Accounting Policies

Reporting Entity

ACERA, with its own governing board, is an independent governmental entity separate and distinct from the County of Alameda. ACERA's annual financial statements are included in the County of Alameda Annual Financial Report as a pension trust fund.

Basis of Accounting

ACERA's financial statements are prepared using the accrual basis of accounting. Employer and employee contributions are recognized as revenues in the period in which employee services are performed and expenses are recorded when the corresponding liabilities are incurred.

Securities lending transactions are accounted for in accordance with GASB Statement No. 28, Accounting and Financial Reporting for Securities Lending Transactions, which establishes reporting standards for securities lending transactions.

In accordance with Statement No. 28, cash received as collateral on securities lending transactions and investments made with that cash are reported as assets and liabilities resulting from these transactions and are both reported in the Statement of Plan Net Assets. In addition, the costs of securities lending transactions are reported as expenses in the Statement of Changes in Plan Net Assets.

Fixed Assets

Fixed assets and leasehold improvements are stated at cost, net of accumulated depreciation and amortization. Depreciation and amortization are calculated using the straight-line method over the estimated useful lives of the depreciable assets and the term of the lease, respectively. Depreciation expense was \$193,922 and \$92,110 for the years ended December 31, 1997 and 1996, respectively. Amortization expense was \$22,284 and \$5,460 for the years ended December 31, 1997 and 1996, respectively.

Cash and Deposits

Cash and pooled cash deposited with the Alameda County Treasurer, approximate market and are entirely insured. Income on pooled cash is allocated based on ACERA's average daily balance in relation to total pooled assets.

Method Used to Value Investments

Short-term investments are reported at cost, which approximates fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchanges rates. Mortgages are reported based on the remaining principal balances, which approximate the value of future principal and interest payments discounted at prevailing rates for similar instruments. The fair value of real estate investments is based on prices in a competitive market as determined by specialists.

Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires the plan administrator to make estimates and assumptions that affect certain amounts and disclosures. Accordingly, actual results may differ from those estimates.

Reclassifications

Certain amounts in the December 31, 1996 financial statements have been reclassified in 1997 for comparative purposes.

3. Contributions

The employers and members contribute to ACERA based on rates recommended by an independent actuary and adopted by the Board of Retirement. Covered employees are required by statute to contribute toward their pensions. Member contribution rates are formulated on the basis of their age at the date of entry and the actuarially-calculated benefits. Contributory plan members are required to contribute between 6.43% and 11.24% of their annual covered salary. Member contributions are refundable upon termination from the retirement system.

The County and Special Districts are required by statute to contribute the amounts necessary to finance the estimated benefits accruing to ACERA members. The County has entered into an agreement whereby the County prepays both the County's employer and employee contributions discounted at 8%. The discount (or effective interest earned) credited to the employer advance reserve balance was \$2,041,990 and \$1,799,758 for the years ended December 31, 1997 and 1996, respectively.

4. Reserves

ACERA reserves are established from member and employer contributions and the accumulation of investment income after satisfying investment and administrative expenses. Note: The reserves do not represent the present value of assets needed, as determined by actuarial valuation, to satisfy retirements and other benefits as they become due. ACERA's major reserves are as follows:

MEMBER RESERVES represent the total accumulated member contributions. Additions include member contributions and investment earnings; deductions include refunds of member contributions and transfers to Retired Member Reserves.

EMPLOYER ADVANCE RESERVES represent the total accumulated employer contributions for future retirement payments to current active members. Additions include contributions from the employer and investment earnings; deductions include transfers to Retired Member Reserves.

RETIRED MEMBER RESERVES represent the total accumulated transfers from Member Reserves and the Employer Advance Reserve and investment earnings, less payments to retired members.

CONTINGENCY RESERVE represents reserves accumulated for future earnings deficiencies and investment losses. The Contingency Reserve is used to satisfy the California Government Code requirement to reserve at least 1% of total assets against the above deficiencies. The balance of the Contingency Reserve, which is funded entirely from investment earnings, cannot exceed 3% of the total assets of the retirement system. The balance of the Contingency Reserve of \$96,965,191 and \$65,768,848 represents 3.0% and 2.5% of total assets for the years ended December 31, 1997 and 1996, respectively.

SUPPLEMENTAL RETIREE BENEFIT RESERVE ("SRBR") represents funds set aside from investment earnings to provide supplemental benefits to retirees. The Supplemental COLA benefits to retirees are currently being funded by this reserve. The SRBR was established on January 1, 1985, when the Board of Retirement and Board of Supervisors for Alameda County adopted the provisions of Article 5.5 of the Government Code.

MARKET STABILIZATION RESERVE represents unrealized gains or losses recognized in the financial statements as a result of reporting investments at fair value instead of cost.

Interest is allocated to all reserves except for the Contingency and Market Stabilization Reserves. The interest is allocated based on an actuarially determined rate, which is approved by the Board of Retirement. The Contingency Reserve is then increased to the limit of 3% of total assets at market value as established by the Board and permitted by Section 31616 of the 1937 Act. The remaining net earnings are allocated 50% to the SRBR and 50% allocated proportionately to all other reserves with the exception of the Contingency and Market Stabilization Reserves as required by Sections 31618 and 31619 of the 1937 Act.

Reserves as of December 31, 1997 and 1996 are as follows:

| | December 31, | |
|--------------------------------------|------------------------|------------------------|
| | 1997 | 1996 |
| <i>Member Reserves:</i> | | |
| Active Members | \$ 553,439,457 | \$ 500,312,429 |
| Unclaimed Deposits | 159,499 | 189,380 |
| Total Member Reserves | 553,598,956 | 500,501,809 |
| Employer Advance Reserve | 512,842,143 | 484,680,547 |
| Retired Member Reserves | 1,105,994,047 | 1,012,245,728 |
| Supplemental Retiree Benefit Reserve | 144,671,900 | 98,735,229 |
| Contingency Reserve | 96,965,191 | 65,768,848 |
| Total Reserves at Book Value | 2,414,072,237 | 2,161,932,161 |
| Market Stabilization Reserve | 551,375,771 | 360,951,064 |
| Total Reserves at Fair Value | \$2,965,448,008 | \$2,522,883,225 |

5. Actuarial Valuation

ACERA has retained an independent actuarial firm, William M. Mercer, to conduct an actuarial valuation to monitor ACERA's funding status. On an annual basis, this valuation is updated for economic and non-economic assumptions as required by the California Government Code. The last valuation was performed as of December 31, 1997, and determined the plan's funded status to be 104.3%.

6. Postemployment Healthcare Benefits

ACERA administers a healthcare benefits program for retired members and their eligible dependents. As administrator, ACERA negotiates the healthcare contract with the providers, but does not handle the claim process. ACERA withholds the healthcare premiums from the retirees' monthly benefit payments and forwards the premiums to the healthcare providers.

Alameda County (the "County") subsidizes the health care premiums of certain retirees by paying a percentage of the cost for the retiree based on the lowest average cost plan available. The amount of the subsidy is dependent upon the retirees' number of years of service. The subsidy ranges from 50% for retirees with 10 years of service to 100% for retirees with 20 years of service. The cost of the healthcare premiums, after the subsidy, is deducted from the retirees' monthly benefit payments. The program may be amended, revised or discontinued at any time.

Plan net assets are not held in trust for postemployment healthcare benefits. Each year, the County prepays an amount to cover the estimated healthcare premium subsidies. As of December 31, 1997, the County's healthcare premium account balance was \$4,485,621. A total of \$5,105,210 and \$4,650,146 was spent on healthcare premium subsidies for 3,382 and 3,263 retirees, for the periods ended December 31, 1997 and 1996, respectively.

7. Industry Concentrations of Portfolio Assets

The Board of Retirement's investment policies and guidelines permit investment in numerous specified asset classes to take advantage of the noncorrelated economic behavior of diverse asset classes. The result is a well-diversified portfolio. The investment portfolio contained no concentration of investments in any one entity (other than those issued or guaranteed by the U.S. Government) that represented 5 percent or more of the total investment portfolio.

8. Investments

ACERA's investment guidelines reflect the duties imposed by an investment standard known as the "prudent expert rule." The prudent expert rule, as set forth in the State Constitution, establishes a standard for all fiduciaries, which includes anyone who has discretionary authority with respect to ACERA's investments.

Bank of New York Western Trust Company (BoNY) serves as custodian of ACERA's investments. ACERA's asset classes include U.S. Equity, International Equity, U.S. Fixed Income, Member Mortgages and Real Estate. Any class may be held in direct form, pooled form or both. In 1997, thirteen external investment managers managed securities portfolios; six investment managers were retained for real estate investments.

Investments are categorized by type to give an indication of the level of credit risk assumed at year end. Category 1 includes investments that are insured or registered, or for which the securities are held by ACERA or its agent in ACERA's name.

Category 2 includes investments that are uninsured and unregistered, with securities held by the counterparty's trust department or agent in the entity's name. Category 3 includes investments that are uninsured and unregistered, with securities held by the counterparty or by its trust department or agent but not in the entity's name. ACERA had no Category 2 investments at December 31, 1997 and 1996.

| | Risk Category | December 31, 1997 | | December 31, 1996 | |
|--|---------------|------------------------|------------------------|------------------------|------------------------|
| | | Cost | Market | Cost | Market |
| Investments – Categorized | | | | | |
| Short-Term Investments | 1 | \$ 141,684,345 | \$ 141,684,345 | \$ 27,847,969 | \$ 27,847,969 |
| Government Bonds | 1 | 141,654,677 | 145,825,737 | 203,890,400 | 203,943,246 |
| Corporate Bonds | 1 | 184,438,779 | 189,765,649 | 119,391,961 | 119,811,481 |
| Corporate Stocks | 1 | 528,809,600 | 650,937,289 | 450,350,232 | 583,444,054 |
| Total | | 996,587,401 | 1,128,213,020 | 801,480,562 | 935,046,750 |
| <i>Investments Made With Securities Lending Cash Collateral:</i> | | | | | |
| Government Bonds | 3 | – | 50,000,000 | – | 6,000,000 |
| Corporate Bonds | 3 | – | 14,000,000 | – | 48,304,831 |
| Bank Obligations | 3 | – | 132,602,996 | – | 49,096,500 |
| Commercial Paper | 3 | – | 11,997,617 | – | 8,370,700 |
| Repurchase Agreements | 3 | – | 10,240,007 | – | 1,223,331 |
| Total | | | 218,840,620 | | 112,995,362 |
| Total Categorized Investments | | \$ 996,587,401 | \$1,347,053,640 | \$ 801,480,562 | \$1,048,042,112 |
| Investments – Not Categorized | | | | | |
| Bond Market Fund | – | \$ 351,354,455 | \$ 390,219,580 | \$ 351,354,455 | \$ 355,729,037 |
| Domestic Equity Index Fund | – | 429,054,047 | 731,811,865 | 563,231,439 | 748,364,727 |
| International Equity Co-mingled Fund | – | 283,317,472 | 346,535,968 | 183,317,472 | 200,986,865 |
| AFL-CIO Housing Trust | – | 12,516,748 | 13,361,247 | 11,887,514 | 12,363,857 |
| Real Estate Properties | – | 97,160,000 | 105,802,970 | 97,946,000 | 101,343,693 |
| Real Estate Trusts | – | 37,702,805 | 36,820,586 | 73,249,596 | 69,164,855 |
| Real Estate Mortgage Loans | – | 1,476,974 | 1,476,974 | 1,694,637 | 1,694,637 |
| Total | | 1,212,582,501 | 1,626,029,190 | 1,282,681,113 | 1,489,647,671 |
| <i>Investments Held by Broker-Dealers under Securities Loans With Cash Collateral:</i> | | | | | |
| Corporate Bonds | – | 18,231,336 | 19,044,640 | – | – |
| Corporate Stocks | – | 163,191,353 | 168,285,082 | 59,891,640 | 80,189,460 |
| Government Bonds | – | 31,659,469 | 32,055,898 | 30,277,096 | 30,397,594 |
| Total | | 213,082,158 | 219,385,620 | 90,168,736 | 110,587,054 |
| Securities Lending Short-Term Collateral Investment Pool | – | – | 545,000 | – | 590,000 |
| Total Non-Categorized Investments | | \$1,425,664,659 | \$1,845,959,810 | \$1,372,849,849 | \$1,600,824,725 |
| Total Investments | | \$2,422,252,060 | \$3,193,013,450 | \$2,174,330,411 | \$2,648,866,837 |

Securities Lending

ACERA is authorized to enter into securities lending transactions, which are short-term collateralized loans of ACERA securities to brokers, with a simultaneous agreement that allows ACERA to invest and receive earnings on the loan collateral for a loan rebate fee. All securities loans can be terminated on demand by either ACERA or the borrower, although the average term of loans is one week.

ACERA's custodian bank, BoNY, administers its securities lending program. BoNY is responsible for maintaining an adequate level of collateral in an amount equal to at least 102% of the market value of loaned U.S. government securities. Collateral received may include cash, letters of credit, or securities. If securities collateral is received, ACERA cannot pledge or sell the securities collateral unless the borrower defaults.

At year-end, ACERA had no credit risk exposure to borrowers because the amounts ACERA owed to borrowers exceeded the amounts the borrowers owed to ACERA. ACERA's contract with BoNY requires it to indemnify ACERA if the borrowers fail to return the securities (and if the collateral is inadequate to replace the securities lent) or fail to pay ACERA for income distributions by the securities' issuers while the securities are on loan.

As of December 31, 1997 and 1996, ACERA had securities on loan with a carrying value of \$213,082,158 and \$90,168,736 for cash collateral of \$219,385,620 and \$113,585,362, respectively. As the securities on loan at year-end were collateralized by cash, they are presented as unclassified in the preceding schedule of custodial credit risk. Investments made with the cash collateral are classified by risk category.

ACERA's securities lending income is as follows:

| | 1997 | 1996 |
|---|-------------------|-------------------|
| Gross Income | \$11,055,721 | \$3,100,376 |
| Expenses: | | |
| Borrower Rebates | 10,005,419 | 2,530,868 |
| Bank Fees | 420,367 | 227,772 |
| Total Expenses | 10,425,786 | 2,758,640 |
| Net Income from Securities Lending | \$ 629,935 | \$ 341,736 |

Real Estate Trusts

ACERA's investment in real estate trusts consisted of the following:

| | December 31, 1997 | | December 31, 1996 | |
|-------------------------|---------------------|---------------------|---------------------|---------------------|
| | Cost | Market | Cost | Market |
| Co-mingled Trust Funds | \$29,330,637 | \$27,670,593 | \$53,200,763 | \$48,505,663 |
| Group Annuity Contracts | 8,372,168 | 9,149,993 | 20,048,833 | 20,659,192 |
| Total | \$37,702,805 | \$36,820,586 | \$73,249,596 | \$69,164,855 |

ACERA owns units of participation in six co-mingled real estate group trust funds organized for the purpose of investing in income-producing real property. The trust funds are managed by four investment managers responsible for purchasing, holding, operating, leasing and selling the various real properties.

The group annuity contracts are unallocated contracts in that payments to the insurance company are held in an undivided fund for investment in real estate until they are used to pay benefits or to buy annuities for retiring or terminating participants. The contracts do not transfer any benefit obligation or related risk to the insurance company or guarantee that the account will have sufficient funds to cover the cost of the annuities when the time comes to purchase them.

Derivative Financial Investments

ACERA does not hold or issue derivative financial instruments for trading purposes. Derivative financial instruments are utilized by ACERA to improve or defend against currency fluctuations of the investment earnings and reduce interest rate risks. None of these securities were leveraged.

Indexed securities are short-term debt instruments for which the interest rates or principal amounts are indexed to an unrelated indicator and consist of collateralized mortgage obligations and asset-backed securities. Forwards are contracts that enable a specific quantity of a particular commodity, foreign currency or other financial instruments, to be bought or sold at its current price, with delivery and settlement at a specified future date. There were no outstanding forward contracts at December 31, 1997 and 1996. Cost and market values of index securities amounted to \$77,987,333 and \$81,676,122, respectively at December 31, 1997 and \$85,914,415 and \$88,935,370, respectively, at December 31, 1996.

At December 31, 1997 and 1996, ACERA was a 62% and 90%, respectively, owner in a co-mingled fund (market value of \$260,735,192 at December 31, 1997 and \$82,646,764 at December 31, 1996). The investment portfolio included holdings in derivatives which had a total value of \$3,492,520 at December 31, 1997 and \$562,541 at December 31, 1996.

The investments in indexed securities bear no credit or legal risks, as they are government agency debt issues. However, they bear market risk in that the mortgages can be prepaid. The investments in forwards and futures also bear market risk as the current market may be particularly sensitive to interest rate fluctuations.

9. Pension Obligation Bond Proceeds

Alameda County, the primary ACERA sponsor, issued pension obligation bonds to fully fund the County's unfunded actuarial liability for retirement benefits to County employees. No portion of the bond proceeds provides for the unfunded obligations of participating Special District employees. Bond proceeds in the amount of \$283,485,000 were transferred to ACERA for investment on December 19, 1996. The bonds are an obligation of Alameda County.

10. Administrative Expenses

ACERA's Board of Retirement annually adopts an operating budget for the administration of ACERA. The administrative expenses are charged against ACERA's investment earnings and are limited to eighteen hundredths of one percent of the total assets of the retirement system as set forth under Government Code Section 31580.2.

| | December 31, | |
|--|-----------------|-----------------|
| | 1997 | 1996 |
| Total Asset Base, at Fair Value | \$3,232,173,040 | \$2,666,846,691 |
| Maximum Allowable for Administrative Expense (.18% x \$3,232,173,040 and \$2,666,846,691) | 5,817,911 | 4,800,324 |
| Actual Administrative Expenses for the Fiscal Year | 3,300,664 | 2,225,036 |
| Excess of Allowance over Actual Administrative Expenses | \$ 2,517,247 | \$ 2,575,288 |
| Actual Administrative Expenses as a Percentage of Total Assets Base | .102% | .083% |

11. Contingent Liability

On October 1, 1997, the Supreme Court decision in the matter of *Ventura County Deputy Sheriff's Association vs. Board of Retirement of the Ventura County Employees' Retirement Association* became final. This decision means that many retirement allowances granted by the twenty county retirement systems in California, including ACERA, were smaller than they would have been had the retirement systems been using the Ventura guidelines. As a result of this decision, ACERA has filed a Declaratory Relief action with Alameda County Superior Court to resolve issues raised by Ventura and may potentially be involved in litigation. The total cost of past and future retirement allowances has not yet been determined because of the issues that still need to be resolved by the courts and the extensive research required. The estimated liabilities associated with the Ventura decision will be incorporated in the 1998 ACERA Actuarial Valuation.

12. Six-Year Historical Trend Information

The six-year historical trend information, designed to provide information about ACERA's progress made in accumulating sufficient assets to pay benefits when due, is presented on page 26.

Supplemental Schedules

December 31, 1997 and 1996

Schedule of Funding Progress

(In Millions of Dollars)

| Actuarial Valuation Date January 1, | Actuarial Value of Plan Assets (a) | Accrued Liability (\$ Actuarial "AAL") (b) | Funded Ratio (%) (a/b) | Unfunded AAL (\$) ("UAAL") (b-a) | Covered Payroll (\$) (c) | UAAL as a Percentage (%) of Covered Payroll [(b-a)/c] |
|-------------------------------------|------------------------------------|--|------------------------|----------------------------------|--------------------------|---|
| 1993 | 1,009 | 1,498 | 67% | 489 | 362 | 135% |
| 1994 | 1,076 | 1,630 | 66% | 554 | 352 | 157% |
| 1995 | 1,443 | 1,715 | 84% | 272 | 366 | 74% |
| 1996 | 1,684 | 1,951 | 86% | 267 | 374 | 71% |
| 1997 | 2,113 | 2,068 | 102% | (45) | 390 | -12% |
| 1998 | 2,314 | 2,218 | 104% | (96) | 413 | -23% |

Schedule of Employer Contributions

(In Millions of Dollars)

| Fiscal Year Ended December 31, | Annual Required Contribution (\$) | Percentage (%) Contributed |
|--------------------------------|-----------------------------------|----------------------------|
| 1992 | 37 | 100% |
| 1993 | 39 | 100% |
| 1994 | 44 | 100% |
| 1995 | 33 | 1,023%* |
| 1996 | 21 | 1,440%* |
| 1997 | 23 | 100% |

*Percentage contributed includes pension obligation bond proceeds.

ALAMEDA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**Notes to the Supplemental Schedules**

December 31, 1997 and 1996

The information presented in the supplementary schedules was determined as part of the actuarial valuations as of the date indicated. Additional information as of the latest actuarial valuation date December 31, 1997 is as follows:

ACTUARIAL COST METHOD: Entry Age Normal

ASSET VALUATION METHOD: 5-year smoothing of market value

AMORTIZATION OF UNFUNDED LIABILITY: The annual contribution rate which, if paid annually over the Unfunded Actuarial Accrued Liability (UAAL) amortization period, would accumulate to the amount necessary to fully fund the UAAL. Accumulation includes annual crediting of interest at the assumed investment earnings rate. The contribution is calculated to remain as a level percentage of future active member payroll (including payroll of new members as they enter the Association) assuming a constant number of active members. In order to remain as a level percentage of payroll, amortization payments are scheduled to increase at the assumed annual inflation rate of 4.50%. The UAAL is being funded over the 21 year period following December 31, 1997. The 1993 Golden Handshake liabilities are being amortized over the 6½ year period following December 31, 1997.

AMORTIZATION APPROACH: Open

AMORTIZATION OF ACTUARIAL GAINS AND LOSSES: Accumulated actuarial gains as of December 31, 1997 attributable to County of Alameda members are being amortized over the 11 year period following that date. Any new actuarial gains and losses will be combined with all unamortized gains and losses and amortized over the current amortization period (21 years).

INVESTMENT RATE OF RETURN: 8% per annum

PROJECTED-SALARY INCREASES: 5.6% per annum

COST OF LIVING ADJUSTMENTS: The maximum increase in retirement allowance is 3% per year for Tier 1 and 2% for Tier 2 members. The maximums are based on the change in the consumer Price Index for the calendar year prior to April 1, effective date.

CONSUMER PRICE INDEX: Increase of 4.5% per annum



WILLIAMS, ADLEY & COMPANY, LLP
Management Consultants
Certified Public Accountants

Independent Auditors' Report on Compliance and on Internal Control Over Financial Reporting Based on an Audit of Financial Statements Performed in Accordance with Government Auditing Standards

Board of Retirement
Alameda County Employees' Retirement Association
Oakland, California

We have audited the financial statements of the Alameda County Employees' Retirement Association ("ACERA") as of and for the years ended December 31, 1997 and 1996, and have issued our report thereon dated April 17, 1998. We conducted our audit in accordance with generally accepted auditing standards and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States.

Compliance

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

Internal Control Over Financial Reporting

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

This report is intended for information purposes to the Board of Retirement, ACERA management and the Controller of State of California. However, this report is a matter of public record and its distribution is not limited.

Williams, Adley & Company, LLP

April 17, 1998

Other Supplemental Information

Schedule of Administrative Expenses

For the Year Ended December 31, 1997 and 1996

| | 1997 | 1996 |
|--------------------------------------|--------------------|--------------------|
| <i>Personnel Services:</i> | | |
| Staff Wages | \$ 949,049 | \$ 795,305 |
| Fringe Benefits | 314,207 | 243,127 |
| Temporary Services | 353,254 | 38,745 |
| Total Personnel Services: | 1,616,510 | 1,077,177 |
| <i>Professional Services:</i> | | |
| Actuarial | 116,636 | 146,816 |
| Computer Services | 40,777 | 28,867 |
| Audit | 45,500 | 64,823 |
| Legal Counsel | 181,713 | 66,230 |
| Specialized Services | 238,736 | 215,435 |
| Total Professional Services | 623,362 | 522,171 |
| <i>Communication:</i> | | |
| Printing | 72,090 | 31,374 |
| Communication | 36,667 | 30,111 |
| Postage | 70,762 | 62,965 |
| Total Communication | 179,519 | 124,450 |
| <i>Rentals:</i> | | |
| Office Space | 179,399 | 64,862 |
| Equipment Leasing | 2,698 | 692 |
| Total Rentals | 182,097 | 65,554 |
| <i>Other:</i> | | |
| Training | 54,211 | 46,916 |
| Supplies | 65,571 | 10,445 |
| Maintenance-Equipment | 16,446 | 15,553 |
| Insurance | 41,038 | 92,100 |
| Depreciation and Amortization | 216,206 | 97,569 |
| Office | 291,040 | 167,221 |
| Miscellaneous | 14,664 | 5,880 |
| Total Other | 699,176 | 435,684 |
| Total Administrative Expenses | \$3,300,664 | \$2,225,036 |

Other Supplemental Information *(continued)*

Fees and Other Investment Expenses Summary

For the Fiscal Year Ended December 31, 1997 and 1996

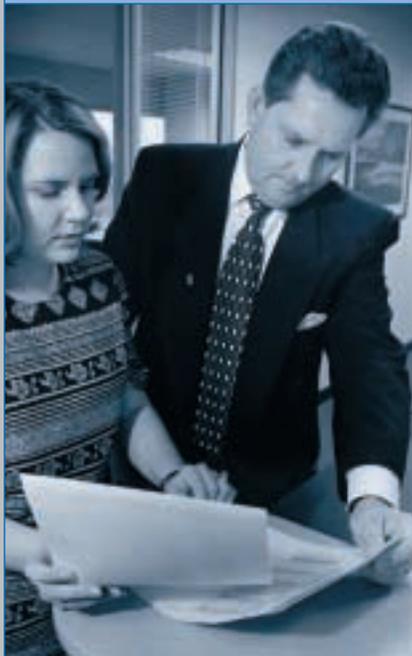
| | 1997 | 1996 |
|---|---------------------|---------------------|
| <i>Investment Manager Fees:</i> | | |
| Equity | | |
| Domestic | \$4,532,313 | \$3,690,405 |
| International | 2,177,255 | 1,405,506 |
| Fixed Income | | |
| Domestic | 823,918 | 787,888 |
| <i>Real Estate Managers:</i> | | |
| Investments in Real Estate and Mortgage Loans | | |
| Investment Trusts | 452,110 | 490,779 |
| Insurance Contracts | 176,963 | 236,946 |
| Individual Properties | 995,070 | 748,984 |
| Subtotal Real Estate Managers | 1,624,143 | 1,476,709 |
| Mortgage Loan Servicer | 4,240 | 4,686 |
| Total Investment Manager Fees | 9,161,869 | 7,365,194 |
| <i>Other Investment Expense:</i> | | |
| Investment Custodians | 217,374 | 80,956 |
| Investment Consultants | 283,559 | 273,583 |
| Legal Counsel | — | 27,474 |
| Individual Properties Operating Expenses | 4,059,128 | 2,468,000 |
| Security Lending Fees | 10,425,786 | 2,758,640 |
| Commissions | 1,678,375 | 1,044,941 |
| Interest on Prepaid County Contributions | 2,041,990 | 1,799,758 |
| Total Other Investment Expense | 18,706,212 | 8,453,352 |
| Total Fees and Other Investment Expenses | \$27,868,081 | \$15,818,546 |

Schedule of Payments to Consultants

| Nature of Services | 1997 | 1996 |
|-------------------------------------|------------------|------------------|
| Software Support | \$139,420 | \$ 22,147 |
| Computer and Personnel Coordination | 60,692 | 31,350 |
| Computer Upgrade and Maintenance | 13,833 | — |
| Executive Search | — | 50,636 |
| Other Specialized Services | 24,791 | 111,302 |
| Total Consulting Fees | \$238,736 | \$215,435 |

Clockwise from top: Rose M. Kwong counsels Ray Ballard and Ransome Roscoe, Charles McDonald (next room) and Ingrid Culbertson; Jenni Mimi Chan; Elena Tzavaras and Charles F. Conrad

Investment



Chief Investment Officer's Report

General Information

External investment management firms manage ACERA's assets. Professional investment consultants, along with investment staff, closely monitor the activity of these managers and assist the Board with the implementation of investment policies and long-term investment strategies.

ACERA's goal is to operate at a level of performance in the upper one quarter of comparable pension funds, and to be as fully funded as possible so that ACERA's benefit costs do not become a burden upon future generations of members and taxpayers.

Summary of Investment Objectives

The Board of Retirement, having sole and exclusive authority and sole and exclusive fiduciary responsibility for the investment and administration of the Trust, has adopted an Investment Policy Statement which reflects the Board's policies for the management of ACERA's investments. The Board reserves the right to amend, supplement or rescind this statement at any time. The Investment Policy Statement establishes investment program goals and policies, asset allocation policies, performance objectives, investment management policies and risk controls. It also defines the principal duties of the Board, staff, investment managers, master custodian and consultants.

ACERA's primary investment objective is to take prudent risk, as necessary, to minimize the cost of meeting the obligations of the Trust. The purpose of the Investment Policy Statement is to express in operational terms: return expectations; prudence with respect to risk and; obligations, including compliance with statutes and regulations.

An integral part of the overall investment policy is the strategic asset allocation policy. This allocation mix is designed to provide an optimal mix of asset categories with return expectations that reflect expected risk. This emphasizes a maximum diversification of the portfolio that protects the Fund from declines that a particular asset class may experience in a given period. Both traditional assets (cash, bonds, domestic stocks, fixed income and mortgages) and nontraditional assets (real estate, international stock) are included in the mix.

Total portfolio return, over the long term is directed toward achieving and maintaining a fully funded status for ACERA. Prudent risk taking is warranted within the context of overall portfolio diversification to meet this objective. All activities will be conducted so as to serve the best interests of ACERA's members and beneficiaries.

Summary of Proxy Voting Guidelines and Procedures

In recognition of its duty to manage retirement plan assets in the best interest of the plan participants, the Board has established Proxy voting guidelines and procedures which are intended to assist in the faithful discharge of the Board's duty to vote proxies on behalf of plan participants.

The guidelines consist of preferences with respect to specific, recurring proxy-voting issues followed by a general statement of voting policies. ACERA will at all times strive to cast proxy votes so as to advance the overall good of the plan participants.

Summary of Investment Results

Domestic equities posted strong returns for 1997 with the S&P 500 up 33.3% and the broad U.S. equity market up 31.8%. The median equity manager* returned 27.9% for the year. International equities as measured by the MSCI EAFE Index

*All medians are Wilshire COOP.

returned 2.1% for the year, while the median international equity manager returned 9.1%. The MSCI South Africa Index was down -8.2% for the year. Bond returns were positive, with the Lehman Aggregate returning 9.7% and the median fixed income manager 9.5%. Real estate returns were positive with the median real estate manager returning 12.1% for the year.

ACERA's Total Fund return of 17.9% for the year is below 18.9% for the median total fund and 19.1% for the median public fund. Over longer periods, ACERA's Total Fund has outperformed both the median total fund and median public fund. ACERA's total domestic equities returned 20.4% for the year, below the median equity manager return of 27.9% and below the S&P 500 return of 33.3%. Of ACERA's equity managers, The Bank of New York S&P 500 Index fund and NCM performed best with returns of 33.2%, and 28.0% respectively, exceeding median equity manager but falling short of the S&P 500. ACERA's domestic equities in aggregate have outperformed the benchmarks over longer periods.

The Morgan Stanley Capital International Europe, Australia, Far East (MSCI EAFE) Index of international equities returned 2.1% for the year and the median international equity manager returned 9.1%. Capital Guardian's return of 10.6% exceeded both the MSCI EAFE Index and the median international manager. GAM Institutional returned 24.7%, also surpassing the MSCI EAFE and the median manager. New Africa Advisers returned 6.4%, better than the -8.2% for the MSCI South Africa Index and 2.1% for MSCI EAFE, but below the median manager.

ACERA total fixed income returned 10.3% for the year, exceeding the median manager return of 9.5% and outperforming the Lehman Aggregate. All of ACERA's active bond managers beat both the median manager and the Lehman Aggregate. ACERA's passive bond manager, State Street Global Advisors, exceeded the median manager return and matched the Lehman Aggregate. Loomis Sayles was the best performer with a return of 11.9%. ACERA's total fixed income has exceeded the benchmarks over longer periods.

The median real estate manager returned 12.1% and the NCREIF Index returned 9.8% for the year. Based on Bank of New York values, ACERA's real estate portion returned 1.0%.

ACERA's alternative investment manager, Amerindo, returned -23.0% trailing the Russell 2000 Growth's return of 12.9% as well as the median equity manager.

ACERA's fund is overweighted in total equities with 62.3% of assets in equities versus the target of 52% as of December 31, 1997. Domestic equities are overweight at 51% of assets versus the target of 42%, while international equities are overweight at 11.3% of assets versus the target of 10%. Cash at 3.2% is above its target of 1% of assets. Alternative Investments are near the target allocation of 2%. Fixed income is at 27% of assets, below the target of 33%. Real estate continues to be under its 9% target at 5.3% of assets. Real estate and fixed income commitments will be funded from US equity, eventually bringing the assets closer to targets.

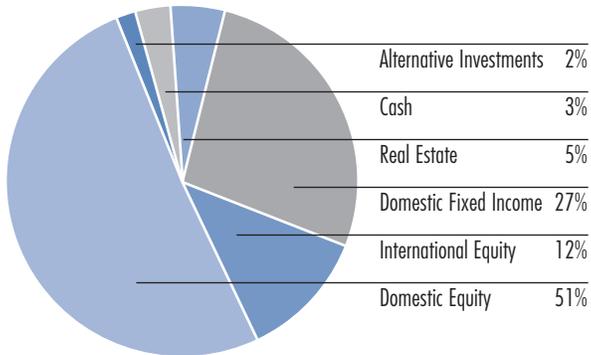


Charles F. Conrad
Chief Investment Officer

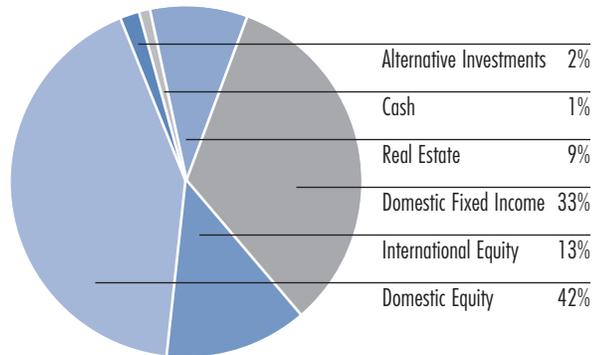
April 17, 1998

Asset Allocation

1997 ACERA Asset Allocation



Target Asset Allocation



The 1997 Actual Asset Allocation is based upon the Investment Summary.

List of Investment Professionals

Investment Managers

Equity — Domestic

Amerindo
Bank of New York — INDEX FUND
Boston Company
NCM Capital Management
Rainier Investment Management
Wellington Management Company

Equity — International

Capital Guardian Trust Fund
Global Assets Management, Inc.
RCB Trust Co.

Fixed Income — Domestic

AFL—CIO
Loomis, Sayles & Co., L.P
Nicholas — Applegate Capital Management
State Street Global Advisors

Real Estate

Copley Real Estate Advisors
Equitable Real Estate
Heitman Capital Management, Corp.
PM Realty Advisors
Schroeder Real Estate Associates Fund
The Yarmouth Group

Investment Consultants

Callan Associates Dorn, Helliesen & Cottle, Inc. Watson Wyatt Investment Consultants

Investment Summary

| | Market Value at 12/31/97 | Percentage of Total Market Value |
|--------------------------------|-----------------------------|-------------------------------------|
| Equity | | |
| <i>Domestic:</i> | | |
| The Boston Company | \$ 226,155,372 | 7.6 |
| NCM Capital | 224,902,356 | 7.6 |
| Nicholas Applegate | 115,883,571 | 3.9 |
| Rainier | 225,128,085 | 7.6 |
| Wellington | 232,109 | 0.0 |
| Bank of New York Index | 731,811,865 | 24.6 |
| Total Domestic Equity | 1,524,113,358 | 51.3 |
| <i>International:</i> | | |
| Capital Guardian | 174,953,053 | 5.9 |
| GAM Institutional | 162,010,422 | 5.4 |
| New Africa Fund | 9,572,493 | 0.3 |
| Total International Equity | 346,535,968 | 11.6 |
| Total Equity | 1,870,649,326 | 62.9 |
| Fixed Income | | |
| <i>Domestic:</i> | | |
| AFL-CIO | 13,361,248 | 0.5 |
| Loomis Sayles | 204,755,662 | 6.9 |
| Loomis Municipal | 655,218 | 0.0 |
| Nicholas Applegate | 198,036,046 | 6.7 |
| State Street Global Advisors | 390,219,580 | 13.1 |
| Total Domestic Fixed Income | 807,027,754 | 27.2 |
| Real Estate | | |
| | 142,623,556 | 4.8 |
| Alternative Investments | | |
| Amerindo | 57,669,402 | 2.0 |
| Cash | | |
| Treasurer's | 32,251 | 0.0 |
| Unallocated | 92,001,665 | 3.1 |
| Total Cash | 92,033,916 | 3.1 |
| Total Market Value | \$2,970,003,954 | 100.0 |

Investment Results

| | Current Year 1997 | Annualized | |
|--------------------------------|----------------------|------------|--------|
| | | 3 Year | 5 Year |
| Domestic Equity | | | |
| Total Domestic Equities | 20.4 | 26.6 | 18.1 |
| Median Equity | 27.9 | 27.9 | 19.3 |
| Benchmark: Russell 3000 | 31.8 | 30.0 | 19.5 |
| International Equity | | | |
| Total International Equities | 17.0 | 15.0 | 18.2 |
| Median International Equity | 9.1 | 11.5 | 13.9 |
| Benchmark: MSCI EAFE Index | 2.1 | 6.6 | 11.7 |
| Fixed Income | | | |
| Total Fixed Income | 10.3 | 11.1 | 8.3 |
| Median Fixed Income | 9.5 | 10.3 | 7.6 |
| Benchmark: Lehman Aggregate | 9.7 | 10.4 | 7.5 |
| Real Estate | | | |
| Total Real Estate | 1.0 | 0.8 | -2.7 |
| Median Real Estate | 12.1 | 8.7 | 6.2 |
| Benchmark: Russell NCREIF | 9.8 | 9.7 | 7.3 |
| Alternative Investments | | | |
| Total Alternative Investments | -23.0 | 14.9 | 11.4 |
| Median Equity | 27.9 | 27.9 | 19.3 |
| Benchmark: Russell 2000 Growth | 12.9 | 18.0 | 12.7 |
| Total Fund | | | |
| Alameda Total Fund | 17.9 | 19.7 | 13.8 |
| Median Total Fund | 18.9 | 19.0 | 13.1 |
| Benchmark: Median Public Fund | 19.1 | 18.4 | 12.6 |

Note: Returns for periods greater than 1 year are annualized.

Largest Stock Holdings (By Market Value)

As of December 31, 1997

| | Shares | Stock | Market Value |
|------------------------------|---------|--|---------------|
| 1 | 446,020 | General Electric Co. | \$ 32,726,700 |
| 2 | 518,228 | Philip Morris Companies, Inc. | 23,449,831 |
| 3 | 212,573 | International Business Machines, Corp. | 22,240,496 |
| 4 | 196,764 | Merck & Co., Inc. | 20,856,970 |
| 5 | 156,075 | Microsoft Corp. Com. | 20,172,706 |
| 6 | 199,581 | Bristol Myers Squibb Co. Com. | 18,885,339 |
| 7 | 283,165 | Johnson & Johnson Com | 18,653,502 |
| 8 | 237,778 | Coca Cola Corp. | 15,856,809 |
| 9 | 215,866 | SBC Communications, Inc. | 15,812,200 |
| 10 | 254,110 | EXXON Corp. | 15,548,371 |
| Total Largest Stock Holdings | | | \$204,202,924 |

Largest Bond Holdings (By Market Value)

As of December 31, 1997

| | Par | Bonds | | Due | Market Value |
|-----------------------------|------------|---|-------|------------|--------------|
| 1 | 14,850,000 | Gov't. National Mtg. Assn., II Pool #2285 | 8.00% | 09/20/2026 | \$13,561,335 |
| 2 | 10,000,000 | U.S. Treasury Bonds | 7.25% | 05/15/2016 | 11,390,600 |
| 3 | 6,700,000 | U.S. Treasury Bonds | 7.50% | 11/15/2016 | 7,820,173 |
| 4 | 7,100,000 | Morgan Stanley Group, Inc, DEB | 7.50% | 02/01/2024 | 7,300,858 |
| 5 | 7,000,000 | American President Cos., Ltd., SR DEB | 8.00% | 01/15/2024 | 7,029,120 |
| 6 | 6,450,000 | Discover Card Master TR I | 5.39% | 01/16/2003 | 6,445,614 |
| 7 | 6,000,000 | SAFECO Cap TR I | 8.07% | 07/15/2037 | 6,290,100 |
| 8 | 5,575,000 | U.S. Treasury Bonds | 6.38% | 08/15/2027 | 5,879,897 |
| 9 | 6,000,000 | Mead Corp., DEB | 7.13% | 08/01/2025 | 5,871,420 |
| 10 | 5,865,000 | Federal National Mtg. Assn., GTD | 6.50% | 09/18/2027 | 5,707,549 |
| Total Largest Bond Holdings | | | | | \$77,296,666 |

Schedule of Management Fees and Commissions

| Investment Activity | December 31, | |
|---|--------------|------------|
| | 1997 | 1996 |
| Equity | | |
| <i>Domestic</i> | | |
| Amerindo | \$ 588,192 | \$ 761,001 |
| Bank of New York-Index Fund | 218,246 | 126,572 |
| Boston Company | 1,085,773 | 870,008 |
| Harris, Bretall, Sullivan & Smith | — | 64,633 |
| NCM Capital Management | 802,159 | 617,518 |
| Nicholas-Applegate | 1,106,583 | 1,002,874 |
| Rainier Investment Management | 436,487 | — |
| Wellington Management Co. | 294,873 | 247,799 |
| Total | 4,532,313 | 3,690,405 |
| <i>International</i> | | |
| Capital Guardian | 785,282 | 526,660 |
| Global Assets Management, Inc. | 1,238,834 | 737,491 |
| RCB Trust Co. | 153,139 | 141,355 |
| Total | 2,177,255 | 1,405,506 |
| Fixed Income | | |
| <i>Domestic</i> | | |
| AFL-CIO | 54,976 | 57,519 |
| Loomis, Sayles & Co. L.P. | 279,080 | 311,461 |
| Nicholas-Applegate | 332,011 | 296,447 |
| State Street Global Advisors | 157,851 | 122,461 |
| Total | 823,918 | 787,888 |
| Real Estate Managers | | |
| <i>Investment in Real Estate and Mortgage Loans</i> | | |
| <i>Investment Trust</i> | | |
| Schroeder Real Estate Associates Fund A | 116,009 | 130,527 |
| Value Enhancement Fund B, L.P.'s | 43,900 | 42,054 |
| Fund C, L.P. | 98,927 | 23,929 |
| PM Realty-IREF II | 50,531 | 36,752 |
| The Yarmouth Group | 55,008 | 107,014 |
| Heitman Capital Management Corp. | 87,735 | 150,503 |
| Total | 452,110 | 490,779 |
| <i>Real Estate Insurance Contracts</i> | | |
| Equitable Real Estate | 153,460 | 188,400 |
| Copley Real Estate Advisors | 23,502 | 48,546 |
| Total | 176,962 | 236,946 |
| <i>Individual Properties</i> | | |
| PM Realty | 995,070 | 748,984 |
| Total | 1,624,142 | 1,476,709 |

continued next page

Schedule of Management Fees and Commissions *(continued)*

| | December 31, | |
|---|--------------------|--------------------|
| | 1997 | 1996 |
| Real Estate Managers <i>(continued)</i> | | |
| <i>Mortgage Loan Servicers</i> | | |
| Wells Fargo Bank | 4,240 | 4,686 |
| <i>Security Lending Fees</i> | | |
| Borrower Rebate | 10,005,419 | 2,530,867 |
| Management Fee | 420,367 | 227,773 |
| Total | 10,425,786 | 2,758,640 |
| Total Investment Management Fees | 19,587,654 | 10,123,834 |
| Other Investment Fees | | |
| <i>Commissions</i> | | |
| Amerindo Investment Advisors | 14,490 | 5,725 |
| Boston Co. | 772,830 | 613,467 |
| NCM Capital Management | 276,753 | 274,506 |
| Nicholas Applegate | 192,249 | 99,661 |
| Rainier Investment Management | 368,525 | — |
| Wellington Management Co. | 53,528 | 51,581 |
| Total Other Investment Fees | \$1,678,375 | \$1,044,940 |

Actuarial



Board of Retirement
Alameda County Employees' Retirement Association
Oakland, California

Dear Members of the Board:

We are pleased to present the actuarial valuation for the Alameda County Employees' Retirement Association prepared as of December 31, 1997 by William M. Mercer, Incorporated. The report includes:

- (1) a determination of the recommended employer contribution rates. These rates are calculated to be effective for the fiscal year beginning July 1, 1998;
- (2) a determination of the recommended member contribution rates, also to be effective for the fiscal year beginning July 1, 1998;
- (3) a determination of the funded status as of December 31, 1997; and
- (4) financial reporting and disclosure information pursuant to applicable accounting standards.

This report conforms with the requirements of the governing state and local statutes, accounting rules, and generally accepted actuarial principles and practices.

DEPUTY SHERIFF'S ASSOCIATION VS. VENTURA COUNTY — In August 1997, the California Supreme Court issued a decision in this case which may require certain additional compensation elements to be included in compensation earnable. This actuarial valuation does not reflect the impact of this decision.

We look forward to presenting this report to the Board at the April 1998 meeting.

Sincerely,



Drew James, FSA, EA, MAAA



Andy Yeung, ASA, EA

April 9, 1998

The actuarial valuation required for the Alameda County Employees' Retirement Association has been prepared as of December 31, 1997 by William M. Mercer, Incorporated. In preparing this valuation, we have employed generally accepted actuarial methods and assumptions to determine a sound value for the Association's assets, liability and future contribution requirements. Our calculations are based upon member data provided to us by the Association's staff and financial information provided by the unaudited report. This data has not been audited, but it has been reviewed and found to be consistent, both internally and with prior year's data.

The contribution requirements are determined as a percentage of payroll. Employer rates provide for both normal cost and a contribution to amortize the unfunded actuarial accrued liability. The amortization period for most of the unfunded actuarial accrued liability is 21 years as of December 31, 1997. The amortization period of the 1993 Golden Handshake liabilities is 6½ years as of December 31, 1997. The contribution to the unfunded actuarial accrued liability is calculated to remain level as a percentage of future payroll (including projected payroll for future members). Payments will increase at the assumed rate of inflation, which is 4.50% per year. The periods for amortizing the unfunded actuarial accrued liability are set by the Board of Retirement.

Contribution levels are recommended by the Actuary and adopted by the Board each year. The ratio of Actuarial Value of Assets to Actuarial Accrued Liabilities increased from 102.2% to 104.3% during the year.

The method of calculating Normal Cost has been revised to meet the requirements of GASB Statement No. 27. The Normal Cost is calculated so that funding for retiring members is no longer completed subsequent to their assumed date of retirement. There have been no changes in actuarial assumptions from those used in the previous actuarial valuation. These assumptions and methods, when applied in combination, fairly represent past and anticipated future experience of the Association.

In order to maintain the County's employer contribution rates at last year's level, we recommend the Retirement Board accelerate the recognition of the favorable investment returns from the pension obligation bonds over 11 years.

Future contribution requirements may differ from those determined in the valuation because of:

- (1) differences between actual experience and anticipated experience;
- (2) changes in actuarial assumptions or methods;
- (3) changes in statutory provisions; and
- (4) differences between the contribution rates determined by the valuation and those adopted by the Board.

DEPUTY SHERIFF'S ASSOCIATION VS. VENTURA COUNTY – In August 1997, the California Supreme Court issued a decision in this case which may require certain additional compensation elements to be included in compensation earnable. This actuarial valuation does not reflect the impact of this decision.

William M. Mercer, Incorporated



Drew James, FSA, EA, MAAA

April 9, 1998



Andy Yeung, ASA, EA

Summary of Assumptions and Funding Method

The following interest rate and inflation rate assumptions have been adopted by the Board as of December 31, 1997.

ASSUMPTIONS

| | |
|---|--|
| Valuation Interest Rate | 8% |
| Inflation Assumption | 4.50% |
| Cost-of-Living Adjustment: | 3% for Tier 1 members 2% for Tier 2 members |
| Interest Rate Credited to Member Accounts | 8% |

The following post-retirement and pre-retirement demographic experiences and salary increase assumptions are based on the plan's actuarial experience through December 31, 1995.

They were adopted by the Retirement Board as of December 31, 1995.

POST-RETIREMENT MORTALITY

(a) Service

| | |
|----------------|---|
| General Member | |
| Males | 1983 Group Annuity Mortality Table with no setback (Male) |
| Females | 1983 Group Annuity Mortality Table with no setback (Female) |
| Safety Members | 1983 Group Annuity Mortality Table with no setback (Male) |
| Beneficiaries | 1983 Group Annuity Mortality Table with no setback (Female) |

(b) Disability

| | |
|---------|---|
| General | 1981 General Disability Mortality Table |
| Safety | 1981 Safety Disability Mortality Table |

(c) For Employee Contribution Rate Purposes

| | |
|---------|---|
| General | 1983 Group Annuity Mortality Table with a 4 year setback (Male) |
| Safety | 1983 Group Annuity Mortality Table with no setback (Male) |

continued next page

| | |
|--------------------------|---|
| PRE-RETIREMENT MORTALITY | Based upon the Experience Analysis as of 12/31/95 |
| WITHDRAWAL RATES | Based upon the Experience Analysis as of 12/31/95 |
| DISABILITY RATES | Based upon the Experience Analysis as of 12/31/95 |
| SERVICE RETIREMENT RATES | Based upon the Experience Analysis as of 12/31/95 |
| SALARY SCALES | Total increases of 5.60% per year reflecting approximately 4.50% for inflation and approximately 1.1% for merit and longevity |

PERCENT OF ACTIVE AND INACTIVE MEMBERS MARRIED

| | |
|---------|-----|
| Males | 80% |
| Females | 50% |

BENEFICIARY AGE DIFFERENCE

| | |
|---------|-----------------|
| Males | 3 years older |
| Females | 3 years younger |

VALUE OF ASSETS FOR CONTRIBUTION RATE PURPOSES

Actuarial Value as described in Section II(ii)

Funding Method and Amortization of Actuarial Gains or Losses

The County’s liability is being funded on the Entry Age Normal Method with an Unfunded Actuarial Accrued Liability (UAAL). The current amortization period for the UAAL is 21 years from the valuation date. The 1993 Golden Handshake liabilities are being amortized over a 10-year period beginning in 1994. There are 6½ years remaining in the amortization schedule as of the date of the Valuation. The County UAAL funding requirements are being offset by credits derived from Pension Obligation Bonds issued by the County in 1995 and 1996. Accumulated actuarial gains as of December 31, 1997, attributable to greater than expected investment returns earned on the Pension Obligation Bond proceeds, are being amortized over the 11 year period following that date. Any new actuarial gains and losses will be combined with all unamortized prior gains and losses and amortized over the current amortization period (21 years).

Schedule of Active Member Valuation Data

| Valuation Date | Plan Type | Number | Annual Payroll \$ | Annual Average Pay \$ | Percentage of Increase in Average Pay* |
|----------------|--------------|--------------|----------------------|--------------------------|--|
| 1/1/89 | General | 7,554 | 233,799,690 | 30,950 | 6.89 |
| | Safety | 1,023 | 36,350,119 | 35,533 | 0.50 |
| | TOTAL | 8,577 | 270,149,809 | 31,497 | 6.08 |
| 1/1/90 | General | 7,642 | 42,368,125 | 31,715 | 2.47 |
| | Safety | 1,333 | 50,475,045 | 37,866 | 6.57 |
| | TOTAL | 8,975 | 92,843,170 | 32,629 | 3.59 |
| 1/1/91 | General | 7,689 | 264,710,135 | 34,427 | 8.55 |
| | Safety | 1,298 | 54,927,313 | 42,317 | 11.75 |
| | TOTAL | 8,987 | 319,637,448 | 35,567 | 9.00 |
| 1/1/92 | General | 7,766 | 85,172,127 | 36,721 | 6.66 |
| | Safety | 1,203 | 56,369,693 | 46,858 | 10.73 |
| | TOTAL | 8,969 | 141,541,820 | 38,080 | 7.07 |
| 1/1/93 | General | 7,916 | 309,059,921 | 39,042 | 6.32 |
| | Safety | 1,172 | 58,467,579 | 49,887 | 6.46 |
| | TOTAL | 9,088 | 367,527,500 | 40,441 | 6.20 |
| 1/1/94 | General | 7,738 | 301,833,734 | 39,007 | -0.09 |
| | Safety | 1,120 | 55,540,749 | 49,590 | -0.60 |
| | TOTAL | 8,858 | 357,374,483 | 40,345 | -0.24 |
| 1/1/95 | General | 7,933 | 310,459,574 | 39,135 | 0.33 |
| | Safety | 1,128 | 55,445,811 | 49,154 | -0.88 |
| | TOTAL | 9,061 | 365,905,385 | 40,382 | 0.09 |
| 1/1/96 | General | 7,861 | 314,376,236 | 39,992 | 2.19 |
| | Safety | 1,196 | 59,227,940 | 49,522 | 0.75 |
| | TOTAL | 9,057 | 373,604,176 | 41,250 | 2.15 |
| 1/1/97 | General | 7,859 | 326,703,539 | 41,571 | 3.95 |
| | Safety | 1,195 | 62,992,218 | 52,713 | 6.44 |
| | TOTAL | 9,054 | 389,695,757 | 43,041 | 4.34 |
| 1/1/98 | General | 7,969 | 344,339,885 | 43,210 | 3.94 |
| | Safety | 1,278 | 68,705,274 | 53,760 | 1.99 |
| | TOTAL | 9,247 | 413,045,159 | 44,668 | 3.78 |

*Reflects the increase in average salary for members at the beginning of the year versus those at the end of the year, it does not reflect the average salary increases received by members who worked the full year.

Schedule of Retirees and Beneficiaries Added To and Removed From Retiree Payroll

| Plan Year | At Beginning of Year | Added During Year | Removed During Year | At End of Year | Annual Retiree Payroll (In Thousands) | % Increase in Annual Retiree Payroll | Average Annual Allowance |
|-----------|----------------------|-------------------|---------------------|----------------|---------------------------------------|--------------------------------------|--------------------------|
| 1992 | 4,557 | N/A | N/A | 4,642 | \$54,450 | 7.63% | \$11,730 |
| 1993 | 4,642 | 355 | 121 | 4,876 | 63,511 | 16.64% | 13,025 |
| 1994 | 4,876 | 241 | 191 | 4,926 | 66,392 | 4.54% | 13,478 |
| 1995 | 4,926 | 284 | 190 | 5,020 | 71,426 | 7.58% | 14,228 |
| 1996 | 5,020 | 248 | 157 | 5,111 | 75,966 | 6.36% | 14,863 |
| 1997 | 5,111 | 220 | 129 | 5,202 | \$81,868 | 7.77% | \$15,738 |

N/A – Not Available

Actuarial Analysis of Financial Experience

(Amounts in millions)

| | Plan Years | | |
|--|------------|---------|--------|
| | 1997 | 1996 | 1995 |
| Prior Valuation Unfunded Actuarial Accrued Liability | \$ (45) | \$ 267 | \$ 272 |
| Expected Increase from Prior Valuation | (1) | (261)* | 25 |
| Salary Increase Greater (Less) than Expected | (8) | (3) | (23) |
| Asset Return Less (Greater) than Expected | (61) | (28) | (27) |
| Other Experience | 10 | (14) | 37 |
| Actuarial Value of Assets Method Change | – | – | (112) |
| Economic Assumption Changes | – | – | (17) |
| Noneconomic Assumption Changes | – | – | 89 |
| Data Corrections | 10 | (6) | 23 |
| Ending Unfunded Actuarial Accrued Liability | \$ (95) | \$ (45) | \$ 267 |

*Included a Pension Obligation Bond Credit of \$283.

Solvency Test

(Amounts in Thousands)

| Valuation Date | Aggregate Accrued Liabilities for | | | | Portion of Accrued Liabilities Covered by Reported Assets | | | |
|----------------|------------------------------------|-------------------------------|---|-------------|---|------|------|-----|
| | (1) Active Member Contributions | (2) Retired/Vested Members | (3) Active Members (Employer Financed Portion) | Total | Actuarial Value of Assets | (1) | (2) | (3) |
| 12/31/92 | \$336,299 | \$ 646,842 | \$514,971 | \$1,498,112 | \$1,009,175 | 100% | 100% | 5% |
| 12/31/93 | 364,006 | 775,997 | 489,500 | 1,629,503 | 1,076,096 | 100 | 92 | 0 |
| 12/31/94 | 406,588 | 817,536 | 490,904 | 1,715,028 | 1,443,470 | 100 | 100 | 45 |
| 12/31/95 | 448,792 | 890,098 | 612,162 | 1,951,052 | 1,684,299 | 100 | 100 | 56 |
| 12/31/96 | 452,253 | 944,777 | 606,546 | 2,003,576 | 2,113,009 | 100 | 100 | 100 |
| 12/31/97 | 510,381 | 1,041,268 | 666,670 | 2,218,319 | 2,313,787 | 100 | 100 | 100 |

NOTES:

This exhibit includes actuarially funded liabilities and assets. The Supplemental Retirees Benefit Reserve and Contingency Reserve are not included.

Events affecting year to year comparability:

12/31/92 – Investment return assumption reduced from 8.50% to 8.25%; Inflation assumption dropped from 5.5% to 5%; changes to noneconomic assumptions.

12/31/93 – Investment return assumption reduced from 8.25% to 8%; Inflation assumption dropped from 5% to 4.75%; Golden handshake offered in 1993.

12/31/94 – Includes \$307,923 Pension Obligation Bond contribution made on 4/29/95.

12/31/95 – Inflation assumption dropped from 4.75% to 4.5%; changes to noneconomic assumptions; change in actuarial asset valuation methodology.

Summary of Plan Provisions

Benefit Sections 31676.1, 31676.12 and 31664 of the 1937 Act

Briefly summarized below are the major provisions of the County Employees Retirement Law of 1937, as amended through January 1, 1998, and as adopted by Alameda County.

Membership

Employees hired after June 30, 1983 become members under Tier 2. All other members are covered by Tier 1 provisions.

Final Average Salary

Final average salary (FAS) is defined as the highest 12 consecutive months of compensation earnable for Tier 1 and highest 36 consecutive months for Tier 2.

Return of Contributions

If a member should resign or die before becoming eligible for retirement, his or her contributions plus interest will be refunded. In lieu of receiving a return of contributions, a member with five or more years of service may elect to leave his or her contributions on deposit and receive a deferred vested benefit when eligible for retirement.

Service Retirement Benefit

Members with 10 years of service who have attained the age of 50 are eligible to retire. Members with 30 years of service (20 years for Safety), regardless of age, are eligible to retire.

The benefit is a percentage of monthly FAS per year of service, depending on age at retirement and is illustrated below for typical ages. For members integrated with Social Security, the benefit is reduced by 1/3 of the percentage shown below times the first \$350 of monthly FAS per year of service credited after January 1, 1956.

Percentage of Final Average Salary — General

| Age | Tier 1 | Tier 2 | Safety |
|-------------|--------|--------|--------|
| 50 | 1.34% | 1.18% | 2.00% |
| 55 | 1.77% | 1.49% | 2.62% |
| 60 | 2.34% | 1.92% | 2.62% |
| 62 | 2.62% | 2.09% | 2.62% |
| 65 and over | 2.62% | 2.43% | 2.62% |

Disability Benefit

Disabled members with 5 years of service, regardless of age, are eligible for nonservice connected disability. The benefit is 1.8% (1.5% for Tier 2 General members) of FAS for each year of service. If this benefit does not equal 1/3 of FAS, the benefit is increased by the above percentage of FAS for the years which would have been credited to age 62 for Tier 1 General members,

age 65 for Tier 2 General members and age 55 for Safety members. The total benefit in this case cannot exceed 1/3 of FAS.

If the disability is service connected, the member may retire regardless of length of service, with a benefit of 50% of FAS.

Death Benefit (Before Retirement)

In addition to the return of contributions, a lump sum death benefit is payable to the member's beneficiary or estate equal to one month's salary for each completed year of service under the Retirement System, based on the final year's average salary, but not to exceed six months' salary.

If a member dies while eligible for service retirement or non-service connected disability, the spouse receives 60% of the allowance that the member would have received for retirement on the day of his or her death.

If a member dies in the performance of duty, the spouse receives 50% of the member's FAS.

Death Benefit (After Retirement)

If a member dies after retirement, a lump sum amount of \$1,000 is paid to the beneficiary or estate.

If the retirement was for service connected disability, 100% of the member's allowance as it was at death is continued to the surviving spouse for life.

If the retirement was for other than service connected disability, 60% of the member's allowance is continued to the spouse for life.

Maximum Benefit

The maximum basic benefit payable to a member or beneficiary is 100% of FAS.

Cost of Living

The maximum increase in retirement allowance is 3% per year for Tier 1 and 2% for Tier 2 members. The maximums are based on the change in the Consumer Price Index for the calendar year prior to the April 1 effective date.

Contribution Rates

Member basic rates are based on a formula reflecting the age at entry into the System. The rates are such as to provide, for each year of service, an average annuity at age 60 of 1/100 of FAS for General members under Tier 1, at age 60 of 1/120 of FAS for General members under Tier 2, and at age 50 of 1/100 of FAS for Safety members. Member cost of living rates are actuarially determined to pay for one-half of future cost of living liabilities.

For members integrated with Social Security, the above contributions are reduced by one-third of that portion of such contribution payable with respect to the first \$350 of monthly salary. Member contributions are refundable upon termination from the System.

The County rates are actuarially determined to provide for the balance of the contributions needed to fund the benefits promised under the Retirement System.

Probabilities of Separation Prior to Retirement

General Tier 1 Male Members

| Age | Withdrawal | | Ordinary Death | Ordinary Disability | Service | Duty Death | Duty Disability | Terminated Vested |
|-----|------------|--------|----------------|---------------------|---------|------------|-----------------|-------------------|
| | 0<X<5 | 5<=X | | | | | | |
| 20 | .23205 | .20000 | .00020 | .00000 | .00000 | .00010 | .00010 | .00000 |
| 21 | .23205 | .18990 | .00020 | .00000 | .00000 | .00010 | .00010 | .00000 |
| 22 | .23205 | .17980 | .00020 | .00000 | .00000 | .00010 | .00010 | .00000 |
| 23 | .23205 | .16971 | .00020 | .00000 | .00000 | .00010 | .00010 | .00000 |
| 24 | .23205 | .15961 | .00020 | .00000 | .00000 | .00010 | .00010 | .00000 |
| 25 | .23205 | .14951 | .00030 | .00020 | .00000 | .00010 | .00010 | .00100 |
| 26 | .23205 | .13941 | .00040 | .00020 | .00000 | .00010 | .00010 | .00180 |
| 27 | .23205 | .12932 | .00040 | .00020 | .00000 | .00010 | .00010 | .00270 |
| 28 | .23205 | .11922 | .00040 | .00020 | .00000 | .00010 | .00010 | .00360 |
| 29 | .23205 | .10912 | .00050 | .00020 | .00000 | .00010 | .00010 | .00450 |
| 30 | .23205 | .09902 | .00048 | .00020 | .00000 | .00010 | .00010 | .00464 |
| 31 | .23205 | .08893 | .00048 | .00030 | .00000 | .00010 | .00010 | .00548 |
| 32 | .23205 | .07883 | .00048 | .00030 | .00000 | .00010 | .00010 | .00633 |
| 33 | .23205 | .06873 | .00048 | .00030 | .00000 | .00010 | .00010 | .00658 |
| 34 | .23205 | .05863 | .00048 | .00040 | .00000 | .00010 | .00010 | .00683 |
| 35 | .23205 | .04854 | .00050 | .00040 | .00000 | .00010 | .00010 | .00840 |
| 36 | .23205 | .04480 | .00060 | .00040 | .00000 | .00010 | .00010 | .00870 |
| 37 | .23205 | .04160 | .00070 | .00050 | .00000 | .00010 | .00020 | .00900 |
| 38 | .23205 | .03840 | .00070 | .00050 | .00000 | .00010 | .00030 | .00900 |
| 39 | .23205 | .03520 | .00070 | .00060 | .00000 | .00010 | .00030 | .00900 |
| 40 | .23205 | .02740 | .00091 | .00070 | .00000 | .00010 | .00040 | .00870 |
| 41 | .23205 | .02471 | .00091 | .00080 | .00000 | .00010 | .00040 | .00841 |
| 42 | .23205 | .02246 | .00101 | .00090 | .00000 | .00010 | .00050 | .00811 |
| 43 | .23205 | .02022 | .00111 | .00100 | .00000 | .00010 | .00060 | .00781 |
| 44 | .23205 | .01842 | .00131 | .00100 | .00000 | .00010 | .00060 | .00752 |
| 45 | .23205 | .01712 | .00145 | .00110 | .00000 | .00009 | .00070 | .00722 |
| 46 | .23205 | .01527 | .00159 | .00110 | .00000 | .00009 | .00070 | .00722 |
| 47 | .23205 | .01388 | .00174 | .00120 | .00000 | .00009 | .00080 | .00722 |
| 48 | .23205 | .01296 | .00188 | .00130 | .00000 | .00009 | .00080 | .00722 |
| 49 | .23205 | .01296 | .00202 | .00130 | .00000 | .00009 | .00090 | .00722 |
| 50 | .23205 | .00897 | .00217 | .00140 | .01967 | .00010 | .00090 | .00660 |
| 51 | .23205 | .00859 | .00243 | .00140 | .01180 | .00010 | .00100 | .00598 |
| 52 | .23205 | .00822 | .00277 | .00150 | .01180 | .00010 | .00100 | .00535 |
| 53 | .23205 | .00785 | .00303 | .00160 | .01180 | .00010 | .00120 | .00473 |
| 54 | .23205 | .00747 | .00329 | .00170 | .01574 | .00010 | .00140 | .00411 |
| 55 | .23205 | .00755 | .00376 | .00180 | .08594 | .00010 | .00160 | .00348 |
| 56 | .23205 | .00715 | .00423 | .00190 | .07448 | .00010 | .00180 | .00305 |
| 57 | .23205 | .00675 | .00470 | .00200 | .07448 | .00010 | .00200 | .00253 |
| 58 | .23205 | .00650 | .00516 | .00220 | .08021 | .00010 | .00220 | .00218 |
| 59 | .23205 | .00650 | .00563 | .00240 | .10313 | .00010 | .00240 | .00174 |
| 60 | .23205 | .00650 | .00610 | .00260 | .14937 | .00010 | .00260 | .00133 |
| 61 | .23205 | .00650 | .00660 | .00280 | .13579 | .00010 | .00280 | .00133 |
| 62 | .23205 | .00650 | .00710 | .00300 | .33948 | .00010 | .00300 | .00133 |
| 63 | .23205 | .00650 | .00760 | .00320 | .25801 | .00010 | .00320 | .00133 |
| 64 | .23205 | .00650 | .00810 | .00340 | .27159 | .00010 | .00340 | .00133 |
| 65 | .00000 | .00000 | .00850 | .00000 | .27203 | .00010 | .00000 | .00133 |
| 66 | .00000 | .00000 | .00900 | .00000 | .27203 | .00010 | .00000 | .00133 |
| 67 | .00000 | .00000 | .00950 | .00000 | .31736 | .00010 | .00000 | .00133 |
| 68 | .00000 | .00000 | .01010 | .00000 | .54405 | .00010 | .00000 | .00133 |
| 69 | .00000 | .00000 | .01070 | .00000 | .72540 | .00010 | .00000 | .00133 |
| 70 | .00000 | .00000 | .00000 | .00000 | 1.00000 | .00000 | .00000 | .00000 |

Probabilities of Separation Prior to Retirement

General Tier 1 Female Members

| Age | Withdrawal | | Ordinary Death | Ordinary Disability | Service | Duty Death | Duty Disability | Terminated Vested |
|-----|------------|--------|-------------------|------------------------|---------|---------------|--------------------|----------------------|
| | O<X<5 | 5<=X | | | | | | |
| 20 | .23205 | .20000 | .00000 | .00000 | .00000 | .00000 | .00010 | .00000 |
| 21 | .23205 | .18192 | .00000 | .00000 | .00000 | .00000 | .00010 | .00000 |
| 22 | .23205 | .16383 | .00000 | .00000 | .00000 | .00000 | .00010 | .00000 |
| 23 | .23205 | .14575 | .00000 | .00000 | .00000 | .00000 | .00010 | .00000 |
| 24 | .23205 | .12766 | .00000 | .00000 | .00000 | .00000 | .00010 | .00000 |
| 25 | .23205 | .10958 | .00020 | .00010 | .00000 | .00000 | .00010 | .00094 |
| 26 | .23205 | .09778 | .00020 | .00010 | .00000 | .00000 | .00010 | .00170 |
| 27 | .23205 | .08599 | .00020 | .00020 | .00000 | .00000 | .00010 | .00254 |
| 28 | .23205 | .07419 | .00020 | .00020 | .00000 | .00000 | .00010 | .00339 |
| 29 | .23205 | .06240 | .00020 | .00020 | .00000 | .00000 | .00010 | .00424 |
| 30 | .23205 | .05060 | .00030 | .00030 | .00000 | .00000 | .00019 | .00638 |
| 31 | .23205 | .04866 | .00030 | .00030 | .00000 | .00000 | .00028 | .00754 |
| 32 | .23205 | .04671 | .00030 | .00030 | .00000 | .00000 | .00028 | .00870 |
| 33 | .23205 | .04476 | .00040 | .00030 | .00000 | .00000 | .00038 | .00986 |
| 34 | .23205 | .04243 | .00040 | .00040 | .00000 | .00000 | .00038 | .01000 |
| 35 | .23205 | .03773 | .00040 | .00040 | .00000 | .00010 | .00050 | .01000 |
| 36 | .23205 | .03303 | .00040 | .00040 | .00000 | .00010 | .00050 | .01000 |
| 37 | .23205 | .02833 | .00040 | .00040 | .00000 | .00010 | .00060 | .01000 |
| 38 | .23205 | .02362 | .00040 | .00050 | .00000 | .00010 | .00060 | .01000 |
| 39 | .23205 | .01892 | .00040 | .00060 | .00000 | .00010 | .00060 | .01000 |
| 40 | .23205 | .01422 | .00049 | .00070 | .00000 | .00010 | .00078 | .00984 |
| 41 | .23205 | .01304 | .00058 | .00080 | .00000 | .00010 | .00078 | .00969 |
| 42 | .23205 | .01205 | .00067 | .00090 | .00000 | .00010 | .00078 | .00953 |
| 43 | .23205 | .01106 | .00076 | .00090 | .00000 | .00010 | .00078 | .00937 |
| 44 | .23205 | .01007 | .00085 | .00090 | .00000 | .00010 | .00078 | .00922 |
| 45 | .23205 | .00935 | .00094 | .00100 | .00000 | .00010 | .00113 | .00906 |
| 46 | .23205 | .00857 | .00104 | .00100 | .00000 | .00010 | .00149 | .00853 |
| 47 | .23205 | .00779 | .00113 | .00100 | .00000 | .00010 | .00184 | .00799 |
| 48 | .23205 | .00721 | .00132 | .00110 | .00000 | .00010 | .00220 | .00767 |
| 49 | .23205 | .00662 | .00142 | .00110 | .00000 | .00010 | .00255 | .00735 |
| 50 | .23205 | .00506 | .00143 | .00120 | .04500 | .00010 | .00291 | .00666 |
| 51 | .23205 | .00474 | .00145 | .00120 | .03500 | .00010 | .00291 | .00597 |
| 52 | .23205 | .00441 | .00147 | .00150 | .03500 | .00010 | .00323 | .00528 |
| 53 | .23205 | .00408 | .00149 | .00160 | .03500 | .00010 | .00355 | .00459 |
| 54 | .23205 | .00376 | .00150 | .00170 | .04000 | .00010 | .00388 | .00390 |
| 55 | .23205 | .00635 | .00152 | .00180 | .08886 | .00010 | .00373 | .00321 |
| 56 | .23205 | .00606 | .00154 | .00190 | .07270 | .00010 | .00358 | .00294 |
| 57 | .23205 | .00577 | .00156 | .00200 | .08078 | .00010 | .00344 | .00268 |
| 58 | .23205 | .00548 | .00157 | .00220 | .10501 | .00010 | .00329 | .00254 |
| 59 | .23205 | .00519 | .00159 | .00240 | .10501 | .00010 | .00315 | .00250 |
| 60 | .23205 | .00180 | .00161 | .00260 | .10502 | .00010 | .00300 | .00210 |
| 61 | .23205 | .00180 | .00172 | .00280 | .12836 | .00010 | .00300 | .00180 |
| 62 | .23205 | .00180 | .00184 | .00300 | .25672 | .00010 | .00300 | .00150 |
| 63 | .23205 | .00180 | .00195 | .00320 | .21005 | .00010 | .00300 | .00120 |
| 64 | .23205 | .00180 | .00213 | .00340 | .22172 | .00010 | .00300 | .00090 |
| 65 | .00000 | .00000 | .00234 | .00000 | .25717 | .00010 | .00000 | .00060 |
| 66 | .00000 | .00000 | .00246 | .00000 | .23812 | .00010 | .00000 | .00050 |
| 67 | .00000 | .00000 | .00252 | .00000 | .33337 | .00010 | .00000 | .00040 |
| 68 | .00000 | .00000 | .00270 | .00000 | .47625 | .00010 | .00000 | .00030 |
| 69 | .00000 | .00000 | .00282 | .00000 | .57150 | .00010 | .00000 | .00020 |
| 70 | .00000 | .00000 | .00000 | .00000 | 1.00000 | .00000 | .00000 | .00000 |

Probabilities of Separation Prior to Retirement

General Tier 2 Male Members

| Age | 0<X<1 | 1<=X<2 | Withdrawal | | | 5<=X | Ordinary Death | Ordinary Disability | Service | Duty Death | Duty Disability | Terminated Vested |
|-----|--------|--------|------------|--------|--------|--------|----------------|---------------------|---------|------------|-----------------|-------------------|
| | | | 2<=X<3 | 3<=X<4 | 4<=X<5 | | | | | | | |
| 20 | .18768 | .10647 | .07748 | .06285 | .04774 | .18770 | .00020 | .00000 | .00000 | .00010 | .00010 | .10000 |
| 21 | .18768 | .10647 | .07748 | .06285 | .04774 | .10650 | .00020 | .00000 | .00000 | .00010 | .00010 | .10000 |
| 22 | .18768 | .10647 | .07748 | .06285 | .04774 | .07750 | .00020 | .00000 | .00000 | .00010 | .00010 | .10000 |
| 23 | .18768 | .10647 | .07748 | .06285 | .04774 | .06290 | .00020 | .00000 | .00000 | .00010 | .00010 | .10000 |
| 24 | .18768 | .10647 | .07748 | .06285 | .04774 | .04770 | .00020 | .00000 | .00000 | .00010 | .00010 | .10000 |
| 25 | .18768 | .10647 | .07748 | .06285 | .04774 | .04700 | .00030 | .00020 | .00000 | .00010 | .00010 | .08000 |
| 26 | .18768 | .10647 | .07748 | .06285 | .04774 | .04650 | .00040 | .00020 | .00000 | .00010 | .00010 | .06000 |
| 27 | .18768 | .10647 | .07748 | .06285 | .04774 | .04579 | .00040 | .00020 | .00000 | .00010 | .00010 | .04000 |
| 28 | .18768 | .10647 | .07748 | .06285 | .04774 | .04335 | .00040 | .00020 | .00000 | .00010 | .00010 | .03000 |
| 29 | .18768 | .10647 | .07748 | .06285 | .04774 | .04121 | .00050 | .00020 | .00000 | .00010 | .00010 | .02500 |
| 30 | .18768 | .10647 | .07748 | .06285 | .04774 | .03992 | .00050 | .00020 | .00000 | .00009 | .00010 | .02250 |
| 31 | .18768 | .10647 | .07748 | .06285 | .04774 | .03863 | .00050 | .00030 | .00000 | .00009 | .00010 | .02000 |
| 32 | .18768 | .10647 | .07748 | .06285 | .04774 | .03734 | .00050 | .00030 | .00000 | .00009 | .00010 | .01900 |
| 33 | .18768 | .10647 | .07748 | .06285 | .04774 | .03605 | .00050 | .00030 | .00000 | .00009 | .00010 | .01861 |
| 34 | .18768 | .10647 | .07748 | .06285 | .04774 | .03476 | .00050 | .00040 | .00000 | .00009 | .00010 | .01823 |
| 35 | .18768 | .10647 | .07748 | .06285 | .04774 | .03347 | .00050 | .00040 | .00000 | .00009 | .00010 | .01784 |
| 36 | .18768 | .10647 | .07748 | .06285 | .04774 | .03218 | .00060 | .00040 | .00000 | .00009 | .00010 | .01746 |
| 37 | .18768 | .10647 | .07748 | .06285 | .04774 | .03089 | .00070 | .00050 | .00000 | .00009 | .00020 | .01707 |
| 38 | .18768 | .10647 | .07748 | .06285 | .04774 | .02960 | .00070 | .00050 | .00000 | .00009 | .00030 | .01669 |
| 39 | .18768 | .10647 | .07748 | .06285 | .04774 | .02831 | .00070 | .00060 | .00000 | .00009 | .00030 | .01630 |
| 40 | .18768 | .10647 | .07748 | .06285 | .04774 | .02702 | .00090 | .00070 | .00000 | .00009 | .00040 | .01591 |
| 41 | .18768 | .10647 | .07748 | .06285 | .04774 | .02436 | .00090 | .00080 | .00000 | .00009 | .00040 | .01553 |
| 42 | .18768 | .10647 | .07748 | .06285 | .04774 | .02215 | .00100 | .00090 | .00000 | .00009 | .00050 | .01514 |
| 43 | .18768 | .10647 | .07748 | .06285 | .04774 | .02180 | .00110 | .00100 | .00000 | .00009 | .00060 | .01476 |
| 44 | .18768 | .10647 | .07748 | .06285 | .04774 | .02150 | .00130 | .00100 | .00000 | .00009 | .00060 | .01437 |
| 45 | .18768 | .10647 | .07748 | .06285 | .04774 | .02130 | .00150 | .00110 | .00000 | .00009 | .00070 | .01398 |
| 46 | .18768 | .10647 | .07748 | .06285 | .04774 | .02110 | .00170 | .00110 | .00000 | .00009 | .00070 | .01398 |
| 47 | .18768 | .10647 | .07748 | .06285 | .04774 | .02100 | .00180 | .00120 | .00000 | .00009 | .00080 | .01398 |
| 48 | .18768 | .10647 | .07748 | .06285 | .04774 | .02080 | .00200 | .00130 | .00000 | .00009 | .00080 | .01398 |
| 49 | .18768 | .10647 | .07748 | .06285 | .04774 | .02060 | .00230 | .00130 | .00000 | .00009 | .00090 | .01398 |
| 50 | .18768 | .10647 | .07748 | .06285 | .04774 | .02050 | .00250 | .00140 | .01464 | .00010 | .00090 | .01260 |
| 51 | .18768 | .10647 | .07748 | .06285 | .04774 | .01997 | .00280 | .00140 | .00879 | .00010 | .00100 | .01120 |
| 52 | .18768 | .10647 | .07748 | .06285 | .04774 | .01911 | .00320 | .00150 | .00879 | .00010 | .00100 | .00980 |
| 53 | .18768 | .10647 | .07748 | .06285 | .04774 | .01824 | .00350 | .00160 | .00879 | .00010 | .00120 | .00840 |
| 54 | .18768 | .10647 | .07748 | .06285 | .04774 | .01737 | .00380 | .00170 | .01171 | .00010 | .00140 | .00700 |
| 55 | .18768 | .10647 | .07748 | .06285 | .04774 | .01900 | .00420 | .00180 | .02642 | .00010 | .00160 | .00634 |
| 56 | .18768 | .10647 | .07748 | .06285 | .04774 | .01800 | .00450 | .00190 | .02290 | .00010 | .00180 | .00555 |
| 57 | .18768 | .10647 | .07748 | .06285 | .04774 | .01700 | .00500 | .00200 | .02290 | .00010 | .00200 | .00460 |
| 58 | .18768 | .10647 | .07748 | .06285 | .04774 | .01600 | .00530 | .00220 | .02466 | .00010 | .00220 | .00396 |
| 59 | .18768 | .10647 | .07748 | .06285 | .04774 | .01600 | .00570 | .00240 | .03171 | .00010 | .00240 | .00317 |
| 60 | .18768 | .10647 | .07748 | .06285 | .04774 | .01600 | .00610 | .00260 | .03713 | .00010 | .00260 | .00200 |
| 61 | .18768 | .10647 | .07748 | .06285 | .04774 | .01500 | .00660 | .00280 | .03376 | .00010 | .00280 | .00200 |
| 62 | .18768 | .10647 | .07748 | .06285 | .04774 | .01500 | .00710 | .00300 | .08439 | .00010 | .00300 | .00200 |
| 63 | .18768 | .10647 | .07748 | .06285 | .04774 | .01500 | .00760 | .00320 | .06414 | .00010 | .00320 | .00200 |
| 64 | .18768 | .10647 | .07748 | .06285 | .04774 | .01500 | .00810 | .00340 | .06752 | .00010 | .00340 | .00200 |
| 65 | .00000 | .00000 | .00000 | .00000 | .00000 | .00000 | .00850 | .00000 | .12606 | .00010 | .00000 | .00185 |
| 66 | .00000 | .00000 | .00000 | .00000 | .00000 | .00000 | .00900 | .00000 | .12606 | .00010 | .00000 | .00185 |
| 67 | .00000 | .00000 | .00000 | .00000 | .00000 | .00000 | .00950 | .00000 | .14706 | .00010 | .00000 | .00185 |
| 68 | .00000 | .00000 | .00000 | .00000 | .00000 | .00000 | .01010 | .00000 | .25211 | .00010 | .00000 | .00185 |
| 69 | .00000 | .00000 | .00000 | .00000 | .00000 | .00000 | .01070 | .00000 | .33615 | .00010 | .00000 | .00185 |
| 70 | .00000 | .00000 | .00000 | .00000 | .00000 | .00000 | .00000 | .00000 | 1.00000 | .00000 | .00000 | .00000 |

Probabilities of Separation Prior to Retirement

General Tier 2 Female Members

| Age | Withdrawal | | | | | 5 <= X | Ordinary Death | Ordinary Disability | Service | Duty Death | Duty Disability | Terminated Vested |
|-----|------------|------------|------------|------------|------------|--------|----------------|---------------------|---------|------------|-----------------|-------------------|
| | 0 < X < 1 | 1 <= X < 2 | 2 <= X < 3 | 3 <= X < 4 | 4 <= X < 5 | | | | | | | |
| 20 | .18768 | .10647 | .07748 | .06285 | .04774 | .18770 | .00000 | .00000 | .00000 | .00000 | .00010 | .01048 |
| 21 | .18768 | .10647 | .07748 | .06285 | .04774 | .10650 | .00000 | .00000 | .00000 | .00000 | .00010 | .01048 |
| 22 | .18768 | .10647 | .07748 | .06285 | .04774 | .07750 | .00000 | .00000 | .00000 | .00000 | .00010 | .01048 |
| 23 | .18768 | .10647 | .07748 | .06285 | .04774 | .06290 | .00000 | .00000 | .00000 | .00000 | .00010 | .01048 |
| 24 | .18768 | .10647 | .07748 | .06285 | .04774 | .04770 | .00000 | .00000 | .00000 | .00000 | .00010 | .01048 |
| 25 | .18768 | .10647 | .07748 | .06285 | .04774 | .04676 | .00011 | .00009 | .00000 | .00000 | .00009 | .01048 |
| 26 | .18768 | .10647 | .07748 | .06285 | .04774 | .04582 | .00011 | .00009 | .00000 | .00000 | .00009 | .01048 |
| 27 | .18768 | .10647 | .07748 | .06285 | .04774 | .04489 | .00016 | .00019 | .00000 | .00000 | .00009 | .01048 |
| 28 | .18768 | .10647 | .07748 | .06285 | .04774 | .04395 | .00016 | .00019 | .00000 | .00000 | .00009 | .01048 |
| 29 | .18768 | .10647 | .07748 | .06285 | .04774 | .04301 | .00016 | .00019 | .00000 | .00000 | .00009 | .01048 |
| 30 | .18768 | .10647 | .07748 | .06285 | .04774 | .04207 | .00040 | .00021 | .00000 | .00000 | .00022 | .01048 |
| 31 | .18768 | .10647 | .07748 | .06285 | .04774 | .04113 | .00040 | .00021 | .00000 | .00000 | .00035 | .01048 |
| 32 | .18768 | .10647 | .07748 | .06285 | .04774 | .04019 | .00040 | .00021 | .00000 | .00000 | .00048 | .01048 |
| 33 | .18768 | .10647 | .07748 | .06285 | .04774 | .03926 | .00040 | .00021 | .00000 | .00000 | .00061 | .01048 |
| 34 | .18768 | .10647 | .07748 | .06285 | .04774 | .03832 | .00050 | .00028 | .00000 | .00000 | .00075 | .01048 |
| 35 | .18768 | .10647 | .07748 | .06285 | .04774 | .03738 | .00048 | .00023 | .00000 | .00008 | .00088 | .01048 |
| 36 | .18768 | .10647 | .07748 | .06285 | .04774 | .03520 | .00048 | .00023 | .00000 | .00008 | .00088 | .01048 |
| 37 | .18768 | .10647 | .07748 | .06285 | .04774 | .03266 | .00048 | .00023 | .00000 | .00008 | .00105 | .01048 |
| 38 | .18768 | .10647 | .07748 | .06285 | .04774 | .03048 | .00058 | .00020 | .00000 | .00008 | .00105 | .01048 |
| 39 | .18768 | .10647 | .07748 | .06285 | .04774 | .02831 | .00068 | .00020 | .00000 | .00008 | .00105 | .01048 |
| 40 | .18768 | .10647 | .07748 | .06285 | .04774 | .02743 | .00069 | .00022 | .00000 | .00008 | .00117 | .01048 |
| 41 | .18768 | .10647 | .07748 | .06285 | .04774 | .02515 | .00070 | .00026 | .00000 | .00008 | .00129 | .01048 |
| 42 | .18768 | .10647 | .07748 | .06285 | .04774 | .02324 | .00072 | .00029 | .00000 | .00008 | .00141 | .01048 |
| 43 | .18768 | .10647 | .07748 | .06285 | .04774 | .02134 | .00073 | .00029 | .00000 | .00008 | .00152 | .01048 |
| 44 | .18768 | .10647 | .07748 | .06285 | .04774 | .01943 | .00074 | .00029 | .00000 | .00008 | .00164 | .01048 |
| 45 | .18768 | .10647 | .07748 | .06285 | .04774 | .02039 | .00075 | .00035 | .00000 | .00009 | .00176 | .01048 |
| 46 | .18768 | .10647 | .07748 | .06285 | .04774 | .01869 | .00075 | .00035 | .00000 | .00009 | .00176 | .01048 |
| 47 | .18768 | .10647 | .07748 | .06285 | .04774 | .01699 | .00075 | .00035 | .00000 | .00009 | .00176 | .01048 |
| 48 | .18768 | .10647 | .07748 | .06285 | .04774 | .01572 | .00087 | .00038 | .00000 | .00009 | .00180 | .01048 |
| 49 | .18768 | .10647 | .07748 | .06285 | .04774 | .01444 | .00087 | .00038 | .00000 | .00009 | .00180 | .01048 |
| 50 | .18768 | .10647 | .07748 | .06285 | .04774 | .01415 | .00110 | .00049 | .01094 | .00009 | .00176 | .01048 |
| 51 | .18768 | .10647 | .07748 | .06285 | .04774 | .01323 | .00110 | .00049 | .00851 | .00009 | .00176 | .01048 |
| 52 | .18768 | .10647 | .07748 | .06285 | .04774 | .01232 | .00131 | .00062 | .00851 | .00009 | .00196 | .01048 |
| 53 | .18768 | .10647 | .07748 | .06285 | .04774 | .01141 | .00145 | .00066 | .00851 | .00009 | .00216 | .01048 |
| 54 | .18768 | .10647 | .07748 | .06285 | .04774 | .01050 | .00152 | .00070 | .00973 | .00009 | .00235 | .01048 |
| 55 | .18768 | .10647 | .07748 | .06285 | .04774 | .01315 | .00170 | .00102 | .02026 | .00010 | .00258 | .01048 |
| 56 | .18768 | .10647 | .07748 | .06285 | .04774 | .01255 | .00188 | .00133 | .01657 | .00010 | .00280 | .01048 |
| 57 | .18768 | .10647 | .07748 | .06285 | .04774 | .01196 | .00206 | .00165 | .01842 | .00010 | .00303 | .01048 |
| 58 | .18768 | .10647 | .07748 | .06285 | .04774 | .01136 | .00225 | .00197 | .02394 | .00010 | .00325 | .01048 |
| 59 | .18768 | .10647 | .07748 | .06285 | .04774 | .01076 | .00243 | .00228 | .02394 | .00010 | .00348 | .01048 |
| 60 | .18768 | .10647 | .07748 | .06285 | .04774 | .01800 | .00261 | .00260 | .03548 | .00010 | .00371 | .01048 |
| 61 | .18768 | .10647 | .07748 | .06285 | .04774 | .01800 | .00286 | .00280 | .04337 | .00010 | .00406 | .01048 |
| 62 | .18768 | .10647 | .07748 | .06285 | .04774 | .01800 | .00302 | .00300 | .08673 | .00010 | .00441 | .01048 |
| 63 | .18768 | .10647 | .07748 | .06285 | .04774 | .01800 | .00318 | .00320 | .07096 | .00010 | .00494 | .01048 |
| 64 | .18768 | .10647 | .07748 | .06285 | .04774 | .01800 | .00343 | .00340 | .07490 | .00010 | .00529 | .01048 |
| 65 | .00000 | .00000 | .00000 | .00000 | .00000 | .00000 | .00071 | .00000 | .12129 | .00010 | .00000 | .01048 |
| 66 | .00000 | .00000 | .00000 | .00000 | .00000 | .00000 | .00071 | .00000 | .11231 | .00010 | .00000 | .01048 |
| 67 | .00000 | .00000 | .00000 | .00000 | .00000 | .00000 | .00071 | .00000 | .15723 | .00010 | .00000 | .01048 |
| 68 | .00000 | .00000 | .00000 | .00000 | .00000 | .00000 | .00071 | .00000 | .22461 | .00010 | .00000 | .01048 |
| 69 | .00000 | .00000 | .00000 | .00000 | .00000 | .00000 | .00071 | .00000 | .26953 | .00010 | .00000 | .01048 |
| 70 | .00000 | .00000 | .00000 | .00000 | .00000 | .00000 | .00000 | .00000 | 1.00000 | .00000 | .00000 | .00000 |

Probabilities of Separation Prior to Retirement

Safety Tier 1 Members

| Age | Withdrawal | | Ordinary Death | Ordinary Disability | Service | Duty Death | Duty Disability | Terminated Vested |
|-----|------------|--------|-------------------|------------------------|---------|---------------|--------------------|----------------------|
| | 0<X<5 | 5 <= X | | | | | | |
| 20 | .15000 | .15000 | .00000 | .00000 | .00000 | .00040 | .00000 | .10000 |
| 21 | .13500 | .13500 | .00000 | .00000 | .00000 | .00040 | .00000 | .10000 |
| 22 | .12000 | .12000 | .00000 | .00000 | .00000 | .00040 | .00000 | .10000 |
| 23 | .11000 | .11000 | .00000 | .00000 | .00000 | .00040 | .00000 | .10000 |
| 24 | .10200 | .10200 | .00000 | .00000 | .00000 | .00040 | .00000 | .10000 |
| 25 | .09700 | .09700 | .00030 | .00010 | .00000 | .00040 | .00010 | .10000 |
| 26 | .09200 | .09200 | .00030 | .00010 | .00000 | .00040 | .00010 | .10000 |
| 27 | .08700 | .08700 | .00040 | .00020 | .00000 | .00040 | .00020 | .10000 |
| 28 | .08000 | .08000 | .00040 | .00020 | .00000 | .00040 | .00020 | .10000 |
| 29 | .07500 | .07500 | .00040 | .00020 | .00000 | .00040 | .00020 | .10000 |
| 30 | .06900 | .06901 | .00038 | .00020 | .00000 | .00040 | .00020 | .04450 |
| 31 | .06600 | .06302 | .00048 | .00020 | .00000 | .00040 | .00020 | .03263 |
| 32 | .06500 | .05704 | .00048 | .00020 | .00000 | .00040 | .00020 | .02670 |
| 33 | .06400 | .05105 | .00048 | .00020 | .00000 | .00040 | .00020 | .02077 |
| 34 | .06300 | .04506 | .00050 | .00030 | .00000 | .00040 | .00030 | .01500 |
| 35 | .06100 | .03907 | .00050 | .00030 | .00000 | .00040 | .00084 | .01434 |
| 36 | .05800 | .03308 | .00050 | .00040 | .00000 | .00040 | .00112 | .01368 |
| 37 | .05300 | .02710 | .00050 | .00040 | .00000 | .00040 | .00112 | .01302 |
| 38 | .04800 | .02111 | .00057 | .00050 | .00000 | .00040 | .00140 | .01236 |
| 39 | .04400 | .01512 | .00064 | .00050 | .00000 | .00050 | .00140 | .01170 |
| 40 | .04000 | .00913 | .00069 | .00060 | .00000 | .00050 | .00148 | .01104 |
| 41 | .03700 | .00845 | .00074 | .00060 | .00100 | .00050 | .00155 | .01038 |
| 42 | .03300 | .00753 | .00079 | .00060 | .00100 | .00050 | .00163 | .00972 |
| 43 | .03000 | .00685 | .00084 | .00070 | .00100 | .00050 | .00170 | .00906 |
| 44 | .02700 | .00616 | .00089 | .00070 | .00100 | .00060 | .00178 | .00840 |
| 45 | .02000 | .00378 | .00094 | .00080 | .00100 | .00060 | .00185 | .00774 |
| 46 | .01200 | .00227 | .00099 | .00080 | .00150 | .00060 | .00185 | .00774 |
| 47 | .00700 | .00132 | .00104 | .00090 | .00150 | .00060 | .00209 | .00774 |
| 48 | .00400 | .00076 | .00109 | .00090 | .00200 | .00060 | .00209 | .00774 |
| 49 | .00100 | .00019 | .00114 | .00100 | .00250 | .00070 | .00232 | .00774 |
| 50 | .00000 | .00000 | .00119 | .00100 | .08066 | .00070 | .00247 | .00269 |
| 51 | .00000 | .00000 | .00124 | .00110 | .02881 | .00070 | .00272 | .00269 |
| 52 | .00000 | .00000 | .00129 | .00110 | .03457 | .00070 | .00272 | .00269 |
| 53 | .00000 | .00000 | .00134 | .00120 | .05185 | .00080 | .00297 | .00269 |
| 54 | .00000 | .00000 | .00139 | .00120 | .14404 | .00080 | .00297 | .00269 |
| 55 | .00000 | .00000 | .00144 | .00130 | .29653 | .00080 | .00321 | .00000 |
| 56 | .00000 | .00000 | .00150 | .00130 | .22239 | .00080 | .00321 | .00000 |
| 57 | .00000 | .00000 | .00156 | .00140 | .22239 | .00090 | .00346 | .00000 |
| 58 | .00000 | .00000 | .00163 | .00140 | .22239 | .00090 | .00346 | .00000 |
| 59 | .00000 | .00000 | .00175 | .00150 | .59305 | .00090 | .00371 | .00000 |
| 60 | .00000 | .00000 | .00000 | .00000 | 1.00000 | .00000 | .00000 | .00000 |

Probabilities of Separation Prior to Retirement

Safety Tier 2 Members

| Age | Withdrawal | | Ordinary Death | Ordinary Disability | Service | Duty Death | Duty Disability | Terminated Vested |
|-----|------------|--------|-------------------|------------------------|---------|---------------|--------------------|----------------------|
| | 0<X<5 | 5<=X | | | | | | |
| 20 | .07000 | .07000 | .00000 | .00000 | .00000 | .00040 | .00000 | .02500 |
| 21 | .07000 | .07000 | .00000 | .00000 | .00000 | .00040 | .00000 | .02500 |
| 22 | .07000 | .07000 | .00000 | .00000 | .00000 | .00040 | .00000 | .02500 |
| 23 | .07000 | .07000 | .00000 | .00000 | .00000 | .00040 | .00000 | .02500 |
| 24 | .07000 | .07000 | .00000 | .00000 | .00000 | .00040 | .00000 | .02500 |
| 25 | .07000 | .05147 | .00030 | .00010 | .00000 | .00040 | .00010 | .02400 |
| 26 | .07000 | .04881 | .00030 | .00010 | .00000 | .00040 | .00010 | .02300 |
| 27 | .07000 | .04616 | .00040 | .00020 | .00000 | .00040 | .00019 | .02200 |
| 28 | .07000 | .04245 | .00040 | .00020 | .00000 | .00040 | .00019 | .02100 |
| 29 | .07000 | .03979 | .00040 | .00020 | .00000 | .00040 | .00019 | .02000 |
| 30 | .06900 | .03700 | .00038 | .00020 | .00000 | .00040 | .00157 | .01909 |
| 31 | .06600 | .03420 | .00048 | .00020 | .00000 | .00040 | .00157 | .01818 |
| 32 | .06500 | .03141 | .00048 | .00020 | .00000 | .00040 | .00157 | .01727 |
| 33 | .06400 | .02862 | .00048 | .00020 | .00000 | .00040 | .00157 | .01636 |
| 34 | .06300 | .02582 | .00050 | .00030 | .00000 | .00040 | .00160 | .01545 |
| 35 | .05490 | .02303 | .00050 | .00030 | .00000 | .00040 | .00170 | .01454 |
| 36 | .05220 | .02189 | .00050 | .00040 | .00000 | .00040 | .00179 | .01363 |
| 37 | .04770 | .02001 | .00050 | .00040 | .00000 | .00040 | .00189 | .01273 |
| 38 | .04320 | .01812 | .00057 | .00050 | .00000 | .00040 | .00198 | .01182 |
| 39 | .03960 | .01661 | .00064 | .00050 | .00000 | .00050 | .00208 | .01091 |
| 40 | .03340 | .01124 | .00069 | .00060 | .00000 | .00050 | .00218 | .01000 |
| 41 | .03089 | .01040 | .00074 | .00060 | .00100 | .00050 | .00218 | .00909 |
| 42 | .02755 | .00927 | .00079 | .00060 | .00100 | .00050 | .00218 | .00818 |
| 43 | .02505 | .00843 | .00084 | .00070 | .00100 | .00050 | .00254 | .00727 |
| 44 | .02254 | .00759 | .00089 | .00070 | .00100 | .00060 | .00254 | .00636 |
| 45 | .02000 | .00632 | .00094 | .00080 | .00100 | .00060 | .00250 | .00545 |
| 46 | .01200 | .00506 | .00099 | .00080 | .00150 | .00060 | .00250 | .00454 |
| 47 | .00700 | .00379 | .00104 | .00090 | .00150 | .00060 | .00250 | .00363 |
| 48 | .00400 | .00253 | .00109 | .00090 | .00200 | .00060 | .00250 | .00272 |
| 49 | .00100 | .00126 | .00114 | .00100 | .00250 | .00070 | .00250 | .00181 |
| 50 | .00000 | .00000 | .00119 | .00100 | .03715 | .00070 | .00247 | .00090 |
| 51 | .00000 | .00000 | .00124 | .00110 | .01327 | .00070 | .00272 | .00090 |
| 52 | .00000 | .00000 | .00129 | .00110 | .01592 | .00070 | .00272 | .00090 |
| 53 | .00000 | .00000 | .00134 | .00120 | .02388 | .00080 | .00297 | .00090 |
| 54 | .00000 | .00000 | .00139 | .00120 | .06634 | .00080 | .00297 | .00090 |
| 55 | .00000 | .00000 | .00144 | .00130 | .12295 | .00080 | .00321 | .00000 |
| 56 | .00000 | .00000 | .00150 | .00130 | .09221 | .00080 | .00321 | .00000 |
| 57 | .00000 | .00000 | .00156 | .00140 | .09221 | .00090 | .00346 | .00000 |
| 58 | .00000 | .00000 | .00163 | .00140 | .09221 | .00090 | .00346 | .00000 |
| 59 | .00000 | .00000 | .00175 | .00150 | .24591 | .00090 | .00371 | .00000 |
| 60 | .00000 | .00000 | .00000 | .00000 | 1.00000 | .00000 | .00000 | .00000 |

Statistical



Total Revenue

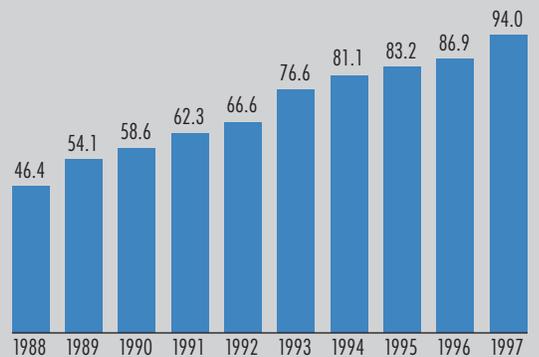
(In Millions of Dollars)



Note: Total revenue for 1995 and 1996 includes pension obligation bond proceeds.

Total Expenses

(In Millions of Dollars)



Revenue by Source

| Fiscal Year | Employee Contributions | Employer Contributions | Investment Income | Miscellaneous Revenue | Total |
|-------------|------------------------|------------------------|-------------------|-----------------------|----------------|
| 1992 | \$29,193,236 | \$ 36,585,394 | \$ 86,818,240 | \$ 24,311 | \$ 152,621,181 |
| 1993 | 29,367,914 | 38,952,790 | 135,625,162 | 64,170 | 204,010,036 |
| 1994 | 29,512,801 | 44,154,192 | 96,685,846 | 29,379 | 170,382,218 |
| 1995 | 30,238,340 | 33,360,976 | 159,421,850 | 309,271,687 | 532,292,853 * |
| 1996 | 31,196,550 | 21,153,565 | 200,920,413 | 283,707,469 | 536,977,997 * |
| 1997 | 32,684,639 | 23,471,769 | 480,195,642 | 295,976 | 536,648,026 |

Excludes Appreciation in Fair Value of Investments.

*Miscellaneous revenue for 1995 and 1996 includes pension obligation bond proceeds.

Expenses by Type

| Fiscal Year | Benefits | Administrative Expenses | Refunds | Other Benefits | Total |
|-------------|--------------|-------------------------|-------------|----------------|--------------|
| 1992 | \$54,321,974 | \$5,057,072 | \$2,943,539 | \$4,353,350 | \$66,675,935 |
| 1993 | 62,290,772 | 5,673,442 | 3,916,563 | 4,792,727 | 76,673,504 |
| 1994 | 66,635,507 | 5,709,417 | 3,795,036 | 5,015,845 | 81,155,805 |
| 1995 | 71,038,847 | 1,800,294 | 5,212,838 | 5,220,501 | 83,272,480 |
| 1996 | 75,276,328 | 2,225,036 | 4,276,394 | 5,123,852 | 86,901,610 |
| 1997 | 80,833,472 | 3,300,664 | 4,391,437 | 5,557,671 | 94,083,244 |

Jenni Mimi Chan counsels Mary Williams (top);
and Mayme Lincoln counsels John D. Yue (bottom)

Schedule of Benefit Expenses by Type

| | 1997 | 1996 | 1995 | 1994 | 1993 | 1992 |
|-------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| <i>Service Retirement Payroll:</i> | | | | | | |
| Basic | \$52,688,796 | \$49,230,000 | \$46,961,000 | \$44,343,000 | \$43,282,704 | \$38,316,396 |
| COLA | 16,232,076 | 14,941,000 | 13,807,000 | 12,800,000 | 11,628,216 | 11,550,108 |
| Total | 68,920,872 | 64,171,000 | 60,768,000 | 57,143,000 | 54,910,920 | 49,866,504 |
| <i>Disability Retiree Payroll:</i> | | | | | | |
| Basic | 4,632,744 | 4,197,000 | 3,587,000 | 2,822,000 | 2,732,412 | 2,959,392 |
| COLA | 1,195,800 | 1,082,000 | 991,000 | 906,000 | 828,420 | 953,676 |
| Total | 5,828,544 | 5,279,000 | 4,578,000 | 3,728,000 | 3,560,832 | 3,913,068 |
| <i>Beneficiaries and Survivors:</i> | | | | | | |
| Basic | 4,449,600 | 4,101,000 | 3,905,000 | 3,560,000 | 3,268,080 | 443,952 |
| COLA | 2,669,184 | 2,415,000 | 2,175,000 | 1,961,000 | 1,771,080 | 226,333 |
| Total | 7,118,784 | 6,516,000 | 6,080,000 | 5,521,000 | 5,039,160 | 670,285 |
| Total | \$81,868,200 | \$75,966,000 | \$71,426,000 | \$66,392,000 | \$63,510,912 | \$54,449,857 |

Note: The above amounts were provided by the Actuary and do not reflect retroactive adjustment to year-end amounts.

Schedule of Retiree Members by Type of Benefit

Summary of Monthly Allowances Being Paid — As of December 31, 1997

| | Number | Monthly Allowance | | Total |
|-----------------------------|--------------|-------------------|-------------------|--------------------|
| | | Basic | Cost of Living | |
| General Members | | | | |
| <i>Service:</i> | | | | |
| Unmodified | 3,428 | \$3,428,334 | \$1,116,419 | \$4,544,753 |
| Option 1 | 104 | 98,786 | 25,247 | 124,033 |
| Option 2,3 & 4 | 144 | 152,220 | 30,703 | 182,923 |
| Total | 3,676 | 3,679,340 | 1,172,369 | 4,851,709 |
| <i>Ordinary Disability:</i> | | | | |
| Unmodified | 110 | 48,894 | 26,756 | 75,650 |
| Option 1 | 6 | 2,861 | 2,462 | 5,323 |
| Option 2, 3 & 4 | 1 | 803 | 309 | 1,112 |
| Total | 117 | 52,558 | 29,527 | 82,085 |
| <i>Duty Disability:</i> | | | | |
| Unmodified | 142 | 175,133 | 32,779 | 207,912 |
| Option 1 | 9 | 7,859 | 806 | 8,665 |
| Option 2, 3 & 4 | 2 | 1,669 | 33 | 1,702 |
| Total | 153 | 184,661 | 33,618 | 218,279 |
| <i>Beneficiaries:</i> | | | | |
| Ex-Spouse | 27 | 13,746 | 5,504 | 19,250 |
| Death | 729 | 308,681 | 187,456 | 496,137 |
| Total | 756 | 322,427 | 192,960 | 515,387 |
| Total General | 4,702 | 4,238,986 | 1,428,474 | 5,667,460 |
| Safety Members | | | | |
| <i>Service Retirement:</i> | | | | |
| Unmodified | 322 | 679,405 | 175,081 | 854,486 |
| Option 1 | 4 | 6,250 | 1,717 | 7,967 |
| Option 2, 3 & 4 | 15 | 25,738 | 3,506 | 29,244 |
| Total | 341 | 711,393 | 180,304 | 891,697 |
| <i>Ordinary Disability:</i> | | | | |
| Unmodified | 1 | 553 | 82 | 635 |
| Option 1 | — | — | — | — |
| Option 2, 3 & 4 | — | — | — | — |
| Total | 1 | 553 | 82 | 635 |
| <i>Duty Disability:</i> | | | | |
| Unmodified | 84 | 141,528 | 34,965 | 176,493 |
| Option 1 | 1 | 2,171 | — | 2,171 |
| Option 2, 3 & 4 | 3 | 4,591 | 1,458 | 6,049 |
| Total | 88 | 148,290 | 36,423 | 184,713 |
| <i>Beneficiaries:</i> | | | | |
| Ex-Spouse | 6 | 5,882 | 1,137 | 7,019 |
| Death | 64 | 42,491 | 28,334 | 70,825 |
| Total | 70 | 48,373 | 29,471 | 77,844 |
| Total Safety | 500 | \$ 908,609 | \$ 246,280 | \$1,154,889 |

Schedule of Average Benefit Payment Amounts

| | Number of Years Since Retirement | | | | | | |
|--------------------------------|----------------------------------|---------|-------|-------|-------|-------|---------|
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30&over |
| <i>Period 1/1/92-12/31/92:</i> | | | | | | | |
| Average Monthly Benefit | \$1,634 | \$1,185 | \$881 | \$391 | \$566 | \$401 | \$377 |
| Number of Active Retirees | 893 | 895 | 1,109 | 922 | 484 | 218 | 121 |
| <i>Period 1/1/93-12/31/93:</i> | | | | | | | |
| Average Monthly Benefit | 1,804 | 1,420 | 956 | 768 | 584 | 432 | 379 |
| Number of Active Retirees | 837 | 1,108 | 1,034 | 967 | 556 | 236 | 138 |
| <i>Period 1/1/94-12/31/94:</i> | | | | | | | |
| Average Monthly Benefit | 1,793 | 1,463 | 1,065 | 823 | 623 | 473 | 196 |
| Number of Active Retirees | 898 | 1,052 | 965 | 1,039 | 600 | 245 | 127 |
| <i>Period 1/1/95-12/31/95:</i> | | | | | | | |
| Average Monthly Benefit | 1,758 | 1,494 | 1,111 | 878 | 716 | 550 | 425 |
| Number of Active Retirees | 1,110 | 1,132 | 928 | 979 | 553 | 210 | 100 |
| <i>Period 1/1/96-12/31/96:</i> | | | | | | | |
| Average Monthly Benefit | 1,670 | 1,564 | 1,181 | 954 | 758 | 616 | 428 |
| Number of Active Retirees | 1,110 | 1,126 | 912 | 959 | 612 | 245 | 110 |
| <i>Period 1/1/97-12/31/97:</i> | | | | | | | |
| Average Monthly Benefit | 1,956 | 1,739 | 1,303 | 972 | 778 | 600 | 431 |
| Number of Active Retirees | 1,100 | 999 | 845 | 1,021 | 728 | 331 | 178 |

Participating Employers and Active Members

| | 1997 | 1996 | 1995 | 1994 | 1993 | 1992 |
|---|--------------|--------------|--------------|--------------|--------------|--------------|
| <i>County of Alameda:</i> | | | | | | |
| General Members | 7,840 | 7,712 | 7,734 | 7,816 | 7,614 | 7,786 |
| Safety Members | 1,278 | 1,211 | 1,196 | 1,128 | 1,120 | 1,172 |
| Total | 9,118 | 8,923 | 8,930 | 8,944 | 8,734 | 8,958 |
| <i>Participating Agencies:</i> | | | | | | |
| (General Membership) | | | | | | |
| Livermore Area Recreation & Park District | 56 | 56 | 51 | 50 | 52 | 59 |
| Housing Authority of Alameda County | 65 | 67 | 67 | 59 | 52 | 52 |
| Alameda County Schools | 8 | 8 | 8 | 8 | 8 | 8 |
| Fairview Fire District | — | — | — | — | — | 11 |
| Alameda County Fire Patrol | — | — | — | — | 12 | — |
| Total | 129 | 131 | 126 | 117 | 124 | 130 |
| <i>Total Active Membership:</i> | | | | | | |
| General Members | 7,969 | 7,843 | 7,860 | 7,933 | 7,738 | 7,916 |
| Safety Members | 1,278 | 1,211 | 1,196 | 1,128 | 1,120 | 1,172 |
| Total | 9,247 | 9,054 | 9,056 | 9,061 | 8,858 | 9,088 |

Employer Contribution Rates

| | County | | | | District | | | |
|------|---------|--------|--------|--------|----------|--------|--------|--------|
| | General | | Safety | | General | | Safety | |
| | Tier 1 | Tier 2 | Tier 1 | Tier 2 | Tier 1 | Tier 2 | Tier 1 | Tier 2 |
| 1992 | 10.83 | 9.98 | 20.02 | 18.51 | 10.83 | 9.98 | N/A | N/A |
| 1993 | 12.35 | 11.65 | 21.17 | 19.66 | 12.35 | 11.65 | N/A | N/A |
| 1994 | 12.97 | 12.24 | 22.46 | 20.87 | 12.97 | 12.24 | N/A | N/A |
| 1995 | 5.14 | 4.11 | 10.15 | 8.36 | 14.31 | 13.28 | N/A | N/A |
| 1996 | 5.51 | 5.13 | 10.24 | 9.93 | 15.93 | 15.55 | N/A | N/A |
| 1997 | 5.12 | 4.76 | 9.28 | 9.02 | 15.15 | 14.79 | N/A | N/A |

How to Reach ACERA

- Address: 475 14th Street, Suite 1000
Oakland, CA 94612-1900
- 800# For Any Inquiries: 800/838-1932
- FAX: 510/287-5411
- Death Benefits: 510/628-3043
- Disability Unit: 510/628-3007
- Marital Dissolutions Unit: 510/628-3043
- Member Services, General Questions: 510/628-3000
- Retiree Health and Dental Benefits: 510/628-3016
- Supplemental COLA Questions: 510/628-3016

On the cover, clockwise from top: Tony Meeks (left) and Jason Johnson; Jeannette Gomes (left) and Mayme Lincoln counsel John D. Yue; Charles McDonald and Amanda Caca; ACERA offices in downtown Oakland

Design: Laura Myers Design

Photography: Saul Bromberger and Sandra Hoover

© 1998 ACERA



475 14th Street, Suite 1000
Oakland, CA 94612-1900

BULK RATE
U.S. POSTAGE
PAID
Oakland, CA
PERMIT NO. 220

