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Comprehensive

for the

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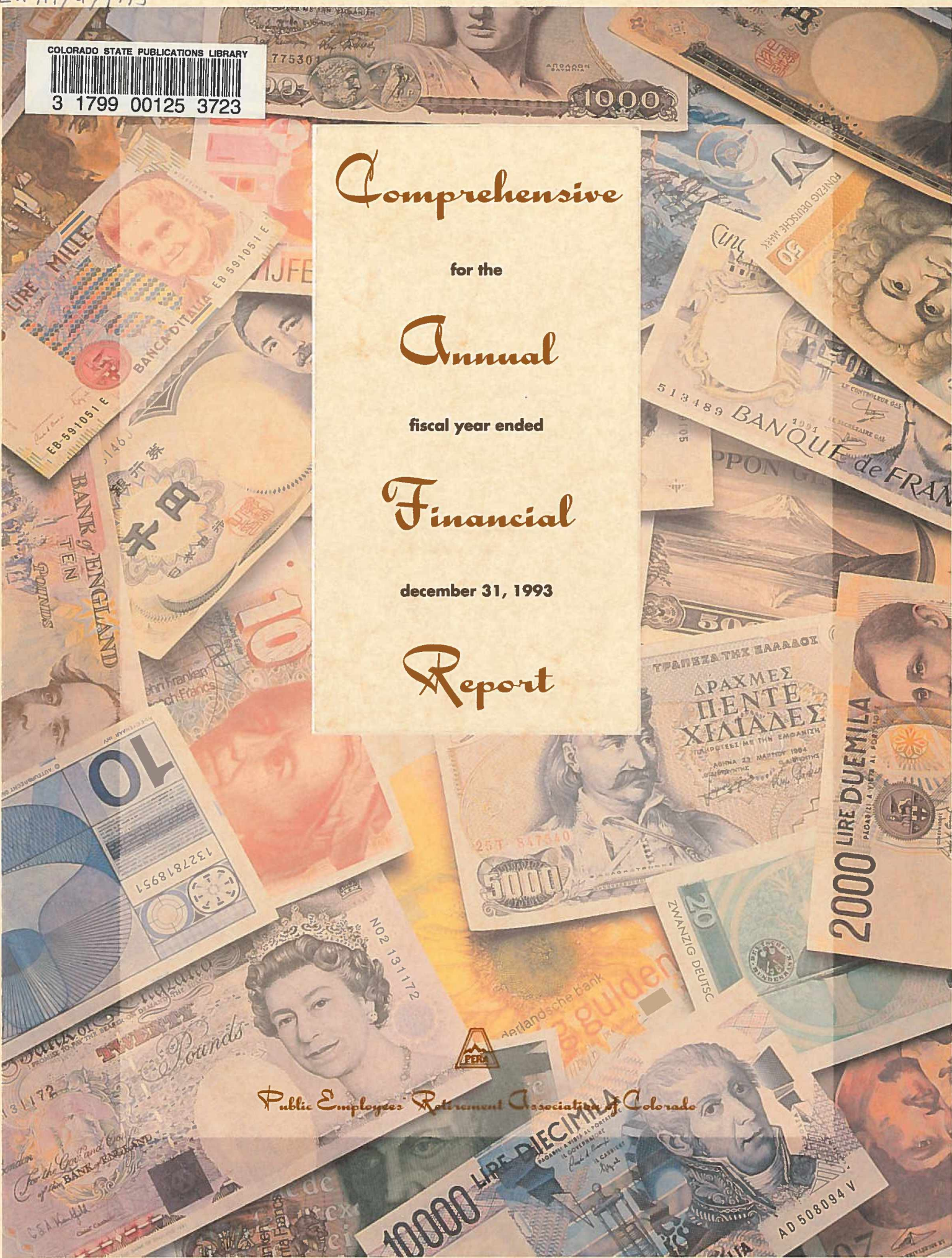
fiscal year ended

Financial

december 31, 1993

Report

Public Employees Retirement Association of Colorado



Economic markets around the world are becoming more diverse every day. This requires PERA to continually analyze and concentrate on the ever-changing aspects of these economies.

During 1993, PERA continued to expand its investment focus globally. Free market economies are slowly emerging all around the world, hence the high rate of return the Association experienced in the international stock and bond arena.

Reaching assets of more than \$14 billion during 1993, we take pride in what we've accomplished without losing sight of our fiduciary responsibility — to continue to protect the security and integrity of the pension fund. Concurrently, it is inherent in our duties to look to the future and examine the increasing opportunities presented to us in the world economy.

The Public Employees' Retirement Association provides retirement and survivor benefits for the employees of 355 state, school and local government entities in Colorado.

Statistical Highlights as of December 31, 1993

<input type="checkbox"/>	Benefit Recipients.....	40,542
<input type="checkbox"/>	Contributing Members.....	139,807
<input type="checkbox"/>	Service Retirements	2,738
<input type="checkbox"/>	Disability Retirements	439
<input type="checkbox"/>	Member Deaths.....	91
<input type="checkbox"/>	Benefit Recipient Deaths	1,063
<input type="checkbox"/>	Benefits Paid*	\$ 568,283,000
<input type="checkbox"/>	Refunds Paid.....	\$ 26,751,000
<input type="checkbox"/>	Employer Contributions	\$ 368,357,000
<input type="checkbox"/>	Member Contributions	\$ 261,337,000
<input type="checkbox"/>	Investment Assets.....	\$ 14,020,538,000
<input type="checkbox"/>	1993 Investment Rate of Return	14.9%
<input type="checkbox"/>	Five-Year Average Annual Rate of Return	11.7%
<input type="checkbox"/>	Ten-Year Average Annual Rate of Return	11.8%

*Includes health care premium subsidies paid to retirees and other benefit recipients.

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fiscal year ended

Financial

december 31, 1993

Report

Robert J. Scott, Executive Director
1300 Logan Street, Denver, Colorado 80203
(303) 832-9550
Prepared by the PERA Staff



Public Employees Retirement Association of Colorado

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Introductory

Section

Public Employees Retirement Association of Colorado

Letter of Transmittal



PUBLIC EMPLOYEES' RETIREMENT ASSOCIATION OF COLORADO

1300 Logan Street Denver, Colorado 80203 General Business Number: (303) 832-9550

InfoLine: 837-6250 or 1-800-759-PERA (7372)

June 17, 1994

Dear Members of the Board of Trustees:

I am pleased to present PERA's Comprehensive Annual Financial Report for the fiscal year ended December 31, 1993. We are proud of the achievements during the year outlined on page 6, and we will strive to improve service to our members and benefit recipients in the future.

Report Contents

This Report consists of seven sections:

- ❑ **The Introductory Section** contains this Letter of Transmittal, the Board Chairman's Letter, Board of Trustees information, the administrative organizational chart, and a list of the consultants used by PERA.

Also included in the Introductory Section is the Plan Summary which outlines the Association's history, purpose, administrative responsibility, and benefit programs.

- ❑ **The Financial Section** contains the opinion of the independent accountants, Price Waterhouse, and the financial statements of the Association.
- ❑ **The Supporting Schedules Section** presents several schedules that supplement the Financial Section, including administrative expenses.
- ❑ **The Investments Section** presents information regarding investments and performance, including the Investment Policy, Investment Summary, Colorado Investment Profile, listings of the Association's internally managed stocks and externally managed assets, and brokers utilized.
- ❑ **The Actuarial Section** contains the certification of the consulting actuary, Towers Perrin, along with the results of the actuarial valuation and other actuarial statistics.
- ❑ **The Statistical Section** contains tables of significant data pertaining to PERA and a list of the 355 affiliated employers.
- ❑ **The Other Programs Section** presents the scope and activities of other programs in which the Association is involved for the good of its members and benefit recipients. These are the Health Care Program, the Life Insurance Program and the 401(k) Voluntary Investment Program.

Accounting System and Reports

The Report has been prepared in accordance with generally accepted accounting principles applied on a consistent basis as agreed upon by the Governmental Accounting Standards Board (GASB) and the American Institute of Certified Public Accountants. The Financial Statements are presented in accordance with

guidelines established by Financial Accounting Standards Board (FASB) Statement No. 35, *Accounting and Reporting by Defined Benefit Pension Plans*. The Notes to Financial Statements were prepared in accordance with GASB Statement No. 5, *Disclosure of Pension Information by Public Employee Retirement Systems and State and Local Government Employers*.

PERA's transactions are reported on the accrual basis of accounting for assets, liabilities, revenues and expenses. Revenues for the Association are taken into account when earned without regard to the date of collection. Expenses are recorded when the corresponding liabilities are incurred, regardless of when the payment is made. Fixed assets are recorded at cost and depreciated through charges to expense over the estimated useful lives of the assets.

In developing and evaluating PERA's accounting system, it was found that internal controls adequately safeguard assets and provide reasonable assurance of proper recording of financial transactions.

Contributions are based on the principles of level-cost financing with current service financed on a current basis. Prior service is amortized over varying periods depending on the respective Division, i.e., 22 years for the State Division, 14 years for the School Division, 5 years for the Municipal Division, and 11 years for the Judicial Division.

Certificate of Achievement

The Government Finance Officers Association (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to PERA for its Comprehensive Annual Financial Report for the fiscal year ended December 31, 1992. To be awarded a Certificate of Achievement, a public employee retirement system must publish a readable and efficiently organized report that conforms to program standards.

A Certificate of Achievement is valid for a period of only one year. The Association's Comprehensive Annual Financial Reports have been awarded this distinction for the past seven years, and we believe our current Report continues to meet GFOA requirements. Therefore, this Report is being submitted to GFOA to determine its eligibility for another Certificate.

Revenues

The revenues needed to finance retirement benefits are accumulated through the collection of employer and member contributions and through income on investments. Contributions and investment income, including unrealized gains and losses for 1993, totaled \$2,414,960,000.

There was an increase of approximately \$9,828,000 in member and employer contributions in 1993 over 1992 primarily due to increased membership.

Expenses

The primary expense of a retirement system is the disbursement of retirement and survivor benefits. These recurring benefit payments, along with refunds of contribution accounts to members who terminate employment, subsidies toward health care premiums, and the cost of administering PERA comprise the total expense. In 1993, this totaled \$628,455,000, an increase of 11.7 percent from 1992.

Total revenues of \$2,414,960,000 exceeded expenses of \$1,786,505,000 by \$1,771,668,000 during 1993. Administrative expenses are controlled by an annual budget approved by the PERA Board of Trustees and represent slightly more than 0.1 percent of total assets.

Value of Accumulated Plan Benefits (Reserves)

Accumulated plan benefits, as presented in our audited financial statements, total \$12,022,590,000. This amount is calculated in accordance with FASB Statement No. 35, which does not take into consideration the effect of future salary increases.

For clarification, we also present, in the Notes to Combined Financial Statements and the Actuarial Section, a summary of PERA's unfunded actuarial accrued liabilities. These are calculated using a "smoothed" market value of assets, which takes the difference between actual market value actuarial gains and expected actuarial gains from investment experience over a four-year period. The effect of projected future salary increases on liabilities is also included.

The Notes to Combined Financial Statements on pages 18 to 27 are governed by GASB Statement No. 5, and present the actuarial valuation of pension benefit obligation, which includes future salary increases and assets at market value.

Economic Condition and Outlook

The national economy rebounded in 1993, as relatively low interest rates created significant growth in investments and consumer spending. Inflation increased less than 3 percent, as did the gross national product.

Colorado's economy is experiencing its strongest growth since 1984, and gains in the state continue to outpace national economic activity (job, income and home building activity have far exceeded national gains). In addition, Colorado's economy has been aided by a reduction in excess construction inventories and many public works projects. The economy is expected to slow in 1995 as these projects come to an end and layoffs in the defense sectors continue.

Employment boomed in 1993, during which the state added more than 68,000 new jobs. The unemployment rate declined from 5.9 percent in 1992 to 5.2 percent in 1993. Colorado ranked third in the nation in population growth for the second consecutive year. About 70,000 more people came to Colorado than left the state in 1993. As a result, rapidly rising housing costs due to consumer demand caused a higher rate of inflation than in the national economy.

Colorado's consumer spending increased to its highest inflation-adjusted level since 1984. This strength was caused by a

net increase of population, improved household incomes and a healthy tourism industry. Personal income grew 6.9 percent in 1993; wage and salary income experienced similar growth rates.

Investments

The investment portfolio income is a major contributor to PERA. The Investment Committee oversees the Fund's portfolio, managers and performance. It also approves potential investment opportunities, with input from PERA staff members, and assesses any potential effects they may have.

In 1993, realized income from both long-term and short-term investments amounted to \$926,746,000. This exceeded the contributions by members and employers of \$261,337,000 and \$368,357,000, respectively.

For the year ended December 31, 1993, the total fund had a rate of return of 14.9 percent on a market value basis. The Association's annualized rate of return over the last five years was 11.8 percent, and over the last 10 years, the average annualized return was 11.8 percent.

A further explanation of PERA's investment policies and strategies is presented in the Investment Policy Summary on page 42. Changes in the composition of the total portfolio during the year are reflected in the Investment Summary on page 43.

Proper funding and healthy investment returns are very important to the financial soundness of PERA. The ratio of investment earnings to total revenue is evidence of the Association's continued solid financial management.

Asset Allocation

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. 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 non-traditional assets (real estate, guaranteed investment contracts, international stocks and fixed income, venture capital, timber investments and leveraged buyouts) are incorporated into the mix.

Funding

The bottom line for a retirement system is its level of funding. If this level is adequate, the ratio of total accumulated assets to total liabilities will be larger, and more funds are available for investment purposes. Also, an adequate funding level gives the participants assurance that their pension benefits are secure.

The advantage of a well-funded plan is that participants can see assets which are irrevocably committed to the payment of promised benefits. Although the historical level of funding for PERA is good (as illustrated by the Solvency Test on page 63), continued effort is being directed at maintaining this level. Funding levels are presented in the Actuarial Section of this Report.

Finally, expressing net assets available for benefits as a percentage of the pension benefit obligation provides another indication of PERA's funding status on a "going-concern" basis. Over time, an analysis of this percentage, as illustrated in the Schedule of Funding Progress on page 27, indicates the strength of the system.

Professional Services

Professional consultants are hired to perform services essential to the efficient operation of the Association. Reports from the independent accountants and actuary are included, and PERA's consultants are listed on page 12.

Review of Operations and Activities of 1993

In 1993, the Colorado General Assembly passed legislation that allows PERA members more flexibility as they plan for retirement. One change in the law expanded retirement eligibility, and a second provided for indexing of benefits for some vested, inactive members.

Another change rolled the Cost of Living Stabilization Fund into the division trust funds in 1994 and altered how annual benefit increases are calculated. Details on this law can be found in the Board Chairman's letter on page 8. Also, the Board of Trustees temporarily reduced the cost to purchase service credit for employment not covered by PERA until December 31, 1994.

Colorado State University and the University of Northern Colorado implemented the first optional defined contribution retirement plans that were allowed by a bill passed in 1992. Current faculty and certain administrators elected to continue their PERA membership or join the new plan. About 50 percent of the members decided to stay in PERA.

Also, The Board directed that a study be initiated to determine if PERA benefits and services are competitive with those offered by other public and private sector employers. This study, with legislative recommendations, will be completed in the fall of 1994. Staff members also began a major review of the employer reporting system.

PERA devotes much attention to advising members about their current or future benefits and assisting them in making personal data record changes. During 1993, staff members met individually with more than 5,600 members and benefit recipients in PERA's offices and responded to more than 42,000 letters and other inquiries. Infoline, a toll-free telephone information center, answered more than 96,700 calls from members, retirees and employers.

PERA employees conducted 273 meetings and staffed 28 information tables at events throughout Colorado to provide information about plan benefits; more than 10,000 members, retirees, and other persons attended these meetings, and nearly 1,900 persons were contacted at the information tables.

Also, 12 meetings were held to educate nearly 300 PERA-affiliated employer staff members about procedures and policies. Finally, the PERA Field Counseling Program provided individual counseling to more than 1,200 members around the state.

In May 1993, a Board of Trustees election was held. Five incumbent Board members were re-elected to their positions — Mark J. Anderson, representing Municipal Division members; Ada Houck, representing retirees; Jack Ehnes, representing State Division members; Kim Natale, representing School Division members; and Leonard P. Plank, representing Judicial Division members. A new member, Patricia K. Kelly, was elected to represent Municipal Division members.

Julie Konzak (State Division) and Dick Lansford (School Division) resigned from the Board during the year. Donna J. Bottenberg and Carole Wright, respectively, were named to fill the vacated positions until June 30, 1994. The resignations were due to a move out-of-state and a retirement.

During 1993, one new public employer affiliated with PERA, and members of one employer voted to disaffiliate from the Association. Two employers ceased to have employees.

The PERA Voluntary Investment Program, a 401(k) tax-deferred supplemental retirement plan, continued to progress. Assets grew from \$42.4 million at the end of 1992 to \$60.9 million at the end of 1993. The Other Programs Section contains a detailed report on the 401(k) plan on page 80, and a separate annual report is available for that program.

During the year, PERA staff conducted an in-depth review of the 401(k) plan and recommended major changes that were approved by the Board and implemented on April 1, 1994. These changes included expanded fund choices and loan provisions, convenient monthly account changes, implementation of an interactive telephone system, and new withdrawal options.

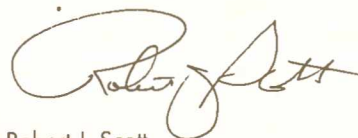
Acknowledgements

The cooperation of our affiliated employers contributes significantly to PERA's success. We thank them for their continuing support.

The compilation of this Report reflects the combined efforts of the PERA staff. It is intended to provide complete and reliable information as a basis for making management decisions, determining compliance with legal provisions, and determining responsible stewardship of assets contributed by the members and their employers. The Report is being mailed to all affiliated employers and other interested persons; a summary will be published in the next issue of the PERA *Member Report* and the PERA *Retiree Report*.

I would like to express my gratitude to the staff, Board of Trustees, consultants and other associates who worked diligently to ensure the successful operation of PERA in 1993.

Respectfully submitted,



Robert J. Scott
Executive Director

AD 50809
Introductory Section
Certificate of Achievement

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Public Employees' Retirement Association of Colorado

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended
December 31, 1992

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.



Arnold H. Stahl
President

Jeffrey L. Esser
Executive Director

AD 5080

Introductory Section

Board Chairman's Letter



PUBLIC EMPLOYEES' RETIREMENT ASSOCIATION OF COLORADO

1300 Logan Street Denver, Colorado 80203 General Business Number: (303) 832-9550
InfoLine: 837-6250 or 1-800-759-PERA (7372)

June 17, 1994

To PERA Members, Benefit Recipients and Employers:

The 1993 Comprehensive Annual Financial Report of the Public Employees' Retirement Association of Colorado presents a detailed view of the financial and actuarial status of your retirement system. The pension fund continues to grow, passing the \$14 billion mark during 1993. I hope you will be pleased with PERA's growth and overall 14.9 percent rate of return.

The Board is dedicated to preserving the financial integrity of the fund through a sound fiscal management program. It takes its role very seriously, and has spent considerable time in investment and asset allocation strategies and policies.

I am pleased to recap House Bill 1324, a three-part law which was initiated by your Board and passed in 1993, which allows PERA members more flexibility as they plan for retirement. Three substantial improvements to the PERA plan were accomplished:

- ❑ The first part permanently expands retirement eligibility so that members with at least 25 years of service credit can retire and begin receiving a reduced service retirement benefit as early as age 50. Prior to passage of the law, members could not retire before age 55 unless they had 35 years of service.
- ❑ Under the second part, the PERA benefit that a vested, inactive member receives at retirement is indexed by the same annual increase paid to PERA benefit recipients if the member has at least 25 years of service credit when employment ends.
- ❑ The third part rolls the Cost of Living Stabilization Fund into the Division trust funds and alters the manner in which annual benefit increases are calculated. Beginning in 1994, annual increases in retirement and survivor benefits will be made automatically for benefit recipients on the last workday of March. This increase can be as much as 3.5 percent compounded annually. Formerly, cost-of-living increases had to be approved by the Colorado Legislature every two years and were paid separately from annual increases.

In other action, the Board voted to temporarily reduce until December 31, 1994, the cost to purchase service credit for employment not covered by PERA. This action gives many members the opportunity to retire sooner or increase their benefit.

I extend my thanks for your support and interest in PERA over the years. With it, we continue to be a leader among public employee retirement systems.

Sincerely,

Frank V. Taulli
Chairman, Board of Trustees

Board of Trustees

By state law, the management of the public employees' retirement fund is vested in the Board of Trustees of the Public Employees' Retirement Association of Colorado.

The Board is composed of 16 members, including the State Auditor and the State Treasurer as ex-officio members. The 14 representative members are elected by mail ballot of their respective division members to serve on the Board for a four-year-term. Five members are elected from the School Division, four from the State Division, two from the Municipal Division, and one from the Judicial Division. Two members represent benefit recipients. If a Board member resigns, a new member is appointed from the respective Division for the remainder of the year until the next election.

Following is the list of Board members who served during calendar year 1993.

Frank V. Taulli

Chairman of the Board

- Member since 1977
- Represents school employees
- Elementary school principal, Pueblo Public Schools, #60
- Current term expires June 30, 1994

Jack Ehnes

Vice Chairman of the Board

- Member since 1989
- Represents state employees
- Deputy Insurance Commissioner, State of Colorado
- Current term expires June 30, 1997

Roberta Altenbern

- Member since 1977
- Represents school employees
- Media specialist, Adams County School District 14
- Current term expires June 30, 1995

Mark J. Anderson

- Member since 1993
- Represents municipal employees
- Risk Manager, City of Colorado Springs
- Current term expires June 30, 1994

Donna J. Bottenberg

- Appointed to Board in 1993
- Represents state employees
- Assistant Dean, University of Northern Colorado
- Current term expires June 30, 1994

Jack L. Darnell

- Member since 1992
- Represents state employees
- Colorado State Patrol Sergeant
- Current term expires June 30, 1996

Ada Houck

- Member since 1973
- Represents retirees
- Retired Elementary Teacher
- Current term expires June 30, 1997

Marsha M. Jackson

- Member since 1986
- Represents school employees
- Elementary Classroom Teacher, Mesa County School District
- Current term expires June 30, 1996

Patricia K. Kelly

- Member since 1993
- Represents municipal employees
- Attorney, City of Colorado Springs
- Current term expires June 30, 1995

Julie Konzak

- Member since 1991
- Represents state employees
- Assistant Vice President of Academic Affairs, University of Northern Colorado
- Resigned from Board July 1, 1993

Richard Lansford

- Member since 1990
- Represents school employees
- Math Teacher, Jefferson County Public Schools
- Resigned from Board July 1, 1993

William Maguire

- Member since 1985
- Represents state employees
- Personnel Specialist, Mental Health Institute at Pueblo
- Current term expires June 30, 1994

J. Kim Natale

- Member since 1985
- Represents school employees
- Math and Science Teacher, Jefferson County Public Schools
- Current term expires June 30, 1997

Timothy M. O'Brien

- Member since 1985
- State Auditor
- Continuous term, ex-officio

Leonard P. Plank

- Member since 1993
- Represents judges
- Judge, Colorado Court of Appeals
- Current term expires June 30, 1995

Gail Schoettler

- Member since 1987
- State Treasurer
- Continuous term, ex-officio

Carl S. Wilkerson

- Member since 1987
- Represents retirees (represented School Division members from 1958-1977)
- Retired Deputy Executive Director, PERA
- Current term expires June 30, 1995

Carole Wright

- Appointed to Board in 1993
- Represents school employees
- Reading Specialist, Aurora Public Schools
- Current term expires June 30, 1994

The Plan Summary

The Public Employees' Retirement Association was established in 1931 by the Colorado General Assembly as an instrumentality of the State. It initially covered only state employees, but membership has expanded to include all school districts except Denver, numerous municipalities, special districts, public health departments and other local government entities, as well as the State's judicial system.

The plan's purpose is to provide benefits to members and their dependents at retirement or in the event of death or disability. The plan is funded on an actuarial reserve basis, with money being set aside for benefits while the benefits are being earned and before they are paid.

Administration of the Plan

The plan operates by the authority of the Colorado General Assembly, with benefits and administration defined under Title 24, Article 51, of the Colorado Revised Statutes. PERA is governed by a 16-member Board of Trustees, 14 of whom are elected by the membership to four-year terms and serve without compensation except for necessary expenses. The State Auditor and the State Treasurer serve as ex-officio members.

The Board appoints an Executive Director who is responsible for the daily administration of the Association. The Board retains an actuary to make annual valuations of the funding adequacy of the liabilities accrued under the plan. The Board also retains other consultants, as necessary.

Member Contributions

Most members contribute 8 percent of their gross salary to a member contribution account. State troopers contribute 11.5 percent. Salary generally is compensation for services rendered and is specifically defined in state law.

Member contributions have been tax-deferred for federal income tax purposes since July 1, 1984, and for state income tax purposes since January 1, 1987. Therefore, contributions are not considered as income for federal or state income tax purposes until they are withdrawn through a refund or a benefit.

Employer Contributions

Affiliated employers also contribute a percentage of their total payroll to the fund. Respective employer contribution rates are shown on the Schedule of PERA's Contribution Rate History on page 67.

The Schedule of Computed Employer Contribution Rates on page 66 shows a detailed explanation of how the employer contributions are determined. These contributions are credited to the respective division for the purpose of creating actuarial reserves, so each member's benefits are fully provided for at retirement.

Termination

A member who terminates PERA-covered employment may request a refund of all of the contributions he or she made to PERA plus interest credited from July 1, 1991, or the date of membership, whichever is later, to the date the account is refunded. A refund cancels any accrued PERA benefits. A terminating member may also leave his or her member contribution account at PERA.

If a member has five or more years of service, and leaves his or her contributions in the account, he or she may (without further payment) apply for a benefit when reaching the eligible age for retirement.

Retirement Benefits

PERA benefits are calculated as a percentage of Highest Average Salary (HAS). This is 1/12 of the average of the highest three annual salaries earned during calendar year periods on which PERA contributions were paid. A 15 percent limitation applies to annual salary increases in the three years prior to retirement.

Service retirement benefits are calculated at 2.5 percent of HAS for each year of service credit through 20 years, and 1.5 percent of HAS for each year between 20 and 40 years. PERA's maximum benefit is 80 percent of HAS.

Service retirement benefits are available to members at any age with 35 years of service, age 55 with at least 30 years of service, age 60 with at least 20 years of service, or age 65 with at least 5 years of service. A reduced service retirement benefit is calculated the same as a service retirement benefit, then decreased by 0.333 percent for each month prior to the eligible date for a service retirement. The reduction equals 4 percent per year. A member is eligible to receive a reduced service retirement benefit at age 55 with 20 years of service credit, or at age 60 with 5 years of service credit. A member is also eligible to receive a reduced service retirement benefit at age 50 with 25 years of service with a slightly greater reduction.

Retirement benefits for state troopers and members of the Judicial Division differ slightly.

Survivor Benefits

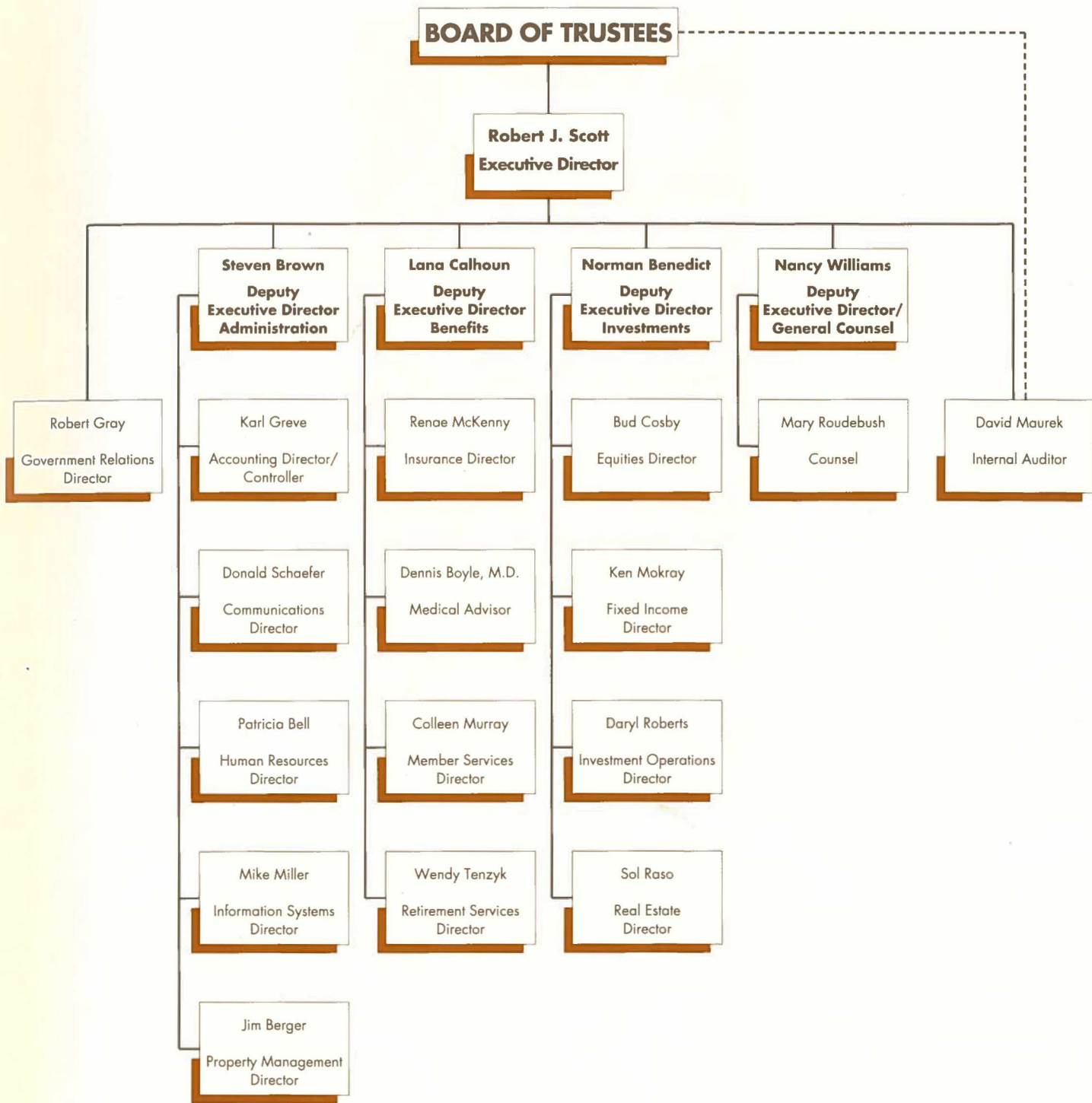
If a member dies before retirement with at least one year of PERA service credit, his or her eligible, unmarried dependent children will receive monthly survivor benefits. Children are eligible if under age 18 or, if enrolled full-time in an accredited school within six months of the member's death, until they reach age 23. If there are no eligible children, or after benefits to children have ceased, the member's surviving spouse receives a monthly benefit at age 60 if the member had less than 10 years of service credit (and the spouse did not remarry), or immediately if the member had more than 10 years of service at the time of death. If there is no eligible spouse, financially dependent parents will receive a survivor benefit.

If the member's death was job-incurred, the service credit minimum is waived. If there are no eligible survivors, the named beneficiary or, if no named beneficiary exists, the estate will receive a single payment of the deceased member's contribution account.

Disability Retirement Benefits

Members with five or more years of earned service credit, six months of which has been earned since the most recent period of membership, are eligible for disability retirement benefits if determined by the Board to be permanently disabled from performing their jobs. The disability retirement benefit is a percentage of HAS based on actual service credit plus projected service credit to age 65 or 20 years of service, whichever is less. Many disabled retirees receive 50 percent of their HAS.

Administrative Organizational Chart*



* As of 6-1-94.

Consultants

Health Care Program Actuary

Buck Consultants
Bank Western Tower
1675 Broadway, Suite 1950
Denver, CO 80202

Independent Accountants

Price Waterhouse
950 Seventeenth Street, Suite 2600
Denver, CO 80202

401(k) Consultant

William M. Mercer, Inc.
One United Bank Center
1700 Lincoln Street, Suite 3300
Denver, CO 80203

Investments — Portfolio Consultant

William M. Mercer Asset Planning, Inc.
3500 Texas Commerce Tower
2200 Ross Avenue
Dallas, TX 75201

Investment Performance Analyst

R.V. Kuhns & Associates, Inc.
1211 SW Fifth Avenue, Suite 2850
Portland, OR 97204

Investments — Real Estate

Institutional Property Consultants, Inc.
4330 La Jolla Village Drive, Suite 310
San Diego, CA 92122

Investments — Economists

Boston Company Economic Advisors, Inc.
One Boston Place
Boston, MA 02109

Lehman Brothers Global Economics
260 Franklin Street
Boston, MA 02110

The Northern Trust Company
50 South LaSalle Street
Chicago, IL 60675

Pension Actuary

Towers Perrin
One Tabor Center, Suite 1200
1200 Seventeenth Street
Denver, CO 80202

Risk Management

Johnson & Higgins of Colorado, Inc.
950 Seventeenth Street, Suite 1850
Denver, CO 80202

Financial

Section

Public Employees Retirement Association of Colorado



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Financial Section
AD 50805

Report of the Independent Accountants

950 Seventeenth Street
Suite 2600
Denver, CO 80202

Telephone 303 893 8100

Price Waterhouse



May 27, 1994

To the Participants and Board of Trustees
of the Public Employees' Retirement Association of
Colorado and the Legislative Audit Committee of the
State of Colorado

In our opinion, the accompanying combined statements of net assets available for benefits and of accumulated plan benefits, and the related combined statements of changes in net assets available for benefits and of changes in accumulated plan benefits present fairly, in all material respects, the financial status of the Public Employees' Retirement Association of Colorado ("PERA," a public association of the State of Colorado) at December 31, 1993 and 1992, and the changes in its financial status for the years then ended, in conformity with generally accepted accounting principles. These financial statements are the responsibility of PERA's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with generally accepted auditing standards which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for the opinion expressed above.

As discussed in Note 4 to the Combined Financial Statements, PERA adopted Statement of Financial Accounting Standard No. 110, "Reporting by Defined Benefit Pension Plans of Investment Contracts."

Our audits were made for the purpose of forming an opinion on the basic financial statements taken as a whole. The additional information included in Schedules I, II, III and IV is presented for purposes of additional analysis and is not a required part of the basic financial statements but is additional information required by ERISA. Such information has been subjected to the auditing procedures applied in the audits of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

Price Waterhouse

Combined Statement of Net Assets Available for Benefits

As of December 31, 1993 and 1992
(In Thousands of Dollars)

Assets

	1993	1992
Investments, at fair value:		
U.S. Government obligations.....	\$ 2,068,779	\$ 1,785,375
Domestic corporate bonds.....	1,671,583	1,620,698
Domestic stocks	6,291,997	5,083,031
International stocks and currency	1,718,818	1,290,350
International fixed income and currency.....	265,248	223,121
Guaranteed investment contracts.....	404,058	551,120
Fixed rate mortgages.....	410,113	414,283
Real estate	483,507	418,331
Participating mortgages.....	99,760	104,269
Leveraged buyout funds	154,343	133,484
Venture capital funds.....	113,426	84,534
Timber investments	93,413	55,871
Taxable municipal bonds	22,049	17,793
Total investments	13,797,094	11,782,260
Receivables:		
Employers	48,059	50,545
Investment settlements and income	84,977	113,362
Other	3,926	2,968
Total receivables	136,962	166,875
Cash and short-term investments	223,444	439,887
Property and equipment, at cost, net of accumulated depreciation of \$8,513 and \$8,352, respectively.....	14,736	14,639
Total assets	14,172,236	12,403,661
 Liabilities and Reserves		
Investment settlements and other	15,905	33,831
Reserves:		
Insurance dividend reserve.....	14,937	13,707
Health care fund	73,826	66,263
Total reserves	88,763	79,970
Total liabilities and reserves	104,668	113,801
Commitments and contingencies (Note 6)	—	—
Net assets available for benefits	\$14,067,568	\$12,289,860

The accompanying notes to combined financial statements are an integral part of these statements.

Combined Statement of Changes in Net Assets Available for Benefits

For the Years Ended December 31, 1993 and 1992
(In Thousands of Dollars)

	1993	1992
Investment income		
Interest.....	\$ 372,768	\$ 404,364
Dividends.....	162,569	153,996
Net appreciation in fair value of investments.....	1,163,657	158,891
Real estate operating income, net.....	35,804	33,402
Foreign exchange translation gains (losses).....	14,837	(79,235)
Total investment income	1,749,635	671,418
Contributions		
Employers.....	368,357	360,179
Members.....	261,337	259,687
Retiree health care premiums.....	16,459	14,409
Service credit purchases.....	19,172	9,468
Total contributions	665,325	643,743
Transfers		
Benefits paid to retirees/cobeneficiaries.....	(509,629)	(440,327)
Benefits paid to survivors.....	(14,116)	(13,211)
Benefits paid to health care participants.....	(44,538)	(40,904)
Refunds of contribution accounts, including interest.....	(26,751)	(32,674)
Other, net.....	(17,133)	(21,031)
Total transfers	(612,167)	(548,147)
Administrative expenses	(16,288)	(14,736)
Net (increase) decrease in insurance dividend reserve, net of administrative fees	(1,230)	887
Net increase in reserve for health care fund	(7,567)	(5,184)
Net increase	1,777,708	747,981
Net assets available for benefits:		
Beginning of year	12,289,860	11,541,879
End of year	\$14,067,568	\$12,289,860

The accompanying notes to combined financial statements are an integral part of these statements.

Combined Statement of Accumulated Plan Benefits

As of December 31, 1993 and 1992

(In Thousands of Dollars)

	1993	1992
Actuarial present value of accumulated plan benefits		
Vested benefits:		
Benefit recipients.....	\$ 6,432,810	\$ 4,794,696
Other members.....	4,588,655	3,922,539
Total vested benefits.....	11,021,465	8,717,235
Non-vested benefits.....	1,001,125	826,958
Total actuarial present value of accumulated plan benefits.....	\$12,022,590	\$ 9,544,193

The accompanying notes to combined financial statements are an integral part of these statements.

Combined Statement of Changes in Accumulated Plan Benefits

For the Years Ended December 31, 1993 and 1992

(In Thousands of Dollars)

	1993	1992
Actuarial present value of accumulated plan benefits at beginning of year....	\$ 9,544,193	\$ 8,968,489
Increase (decrease) during the year attributable to:		
Benefits accumulated and interest amortization, net of refunds.....	3,002,142	1,029,242
Benefits paid.....	(523,745)	(453,538)
Actuarial present value of accumulated plan benefits at end of year.....	\$12,022,590	\$ 9,544,193

The accompanying notes to combined financial statements are an integral part of these statements.

Notes to Combined Financial Statements

December 31, 1993 and 1992

(In Thousands of Dollars)

Note 1 - General Description of the Plan:

Organization

The Public Employees' Retirement Association of Colorado ("PERA") was established in 1931 under Title 24, Article 51, Section 201 of the Colorado Revised Statutes, as amended. PERA is defined as a cost-sharing, multiple-employer defined benefit pension plan (the "Plan"). The Plan's purpose is to provide benefits to members at retirement, or in the event of a death or disability. These members are employed by public employers (most of whom do not participate under Social Security) located in the State of Colorado and affiliated with PERA.

Responsibility for the organization and administration of the Plan is placed with the Board of Trustees (the "Board") of PERA. The State Division Trust Fund was established in 1931, the School and Municipal Division Trust Funds in 1944 and the Judicial Division Trust Fund in 1949.

The number of affiliated employers for the four divisions is as follows:

	As of December 31	
	1993	1992
State.....	75 *	82
School.....	193	193
Municipal.....	81	84
Judicial.....	<u>6</u>	<u>6</u>
Total employers.....	<u>355</u>	<u>365</u>

*Some agencies were deleted since they are part of a major department in state government.

Benefit recipients and members in PERA consisted of the following as of December 31, 1993 and 1992:

	State	School	Municipal	Judicial	Combined Totals	
					1993	1992
Retirees and beneficiaries currently receiving benefits, and terminated members entitled to benefits but not yet receiving them.....	18,723	22,793	2,167	194	43,877	41,402
Members:						
Vested.....	24,743	38,990	4,138	202	68,073	67,066
Non-vested.....	<u>25,964</u>	<u>39,422</u>	<u>6,298</u>	<u>50</u>	<u>71,734</u>	<u>69,832</u>
Totals.....	<u>69,430</u>	<u>101,205</u>	<u>12,603</u>	<u>446</u>	<u>183,684</u>	<u>178,300</u>

Reporting Entity

The Board oversees all funds included in the combined financial statements of PERA. The Board's responsibilities include designation of management, the ability to significantly influence operations, and accountability for fiscal matters.

PERA is an instrumentality of the state; it is not an agency of state government. Also, it is not subject to administrative direction by any department, commission, board, bureau or agency of the State. Accordingly, PERA's financial statements are not included in the financial statements of any other organization.

Contributions

Member and employer contributions are based on actuarial valuations performed annually, using the methods prescribed by National Council on Governmental Accounting Statement No. 1, *Governmental Accounting and Financial Reporting Principles*.

Members are required to contribute 8 percent of their gross salary to PERA, except for State Patrol Officers and Colorado Bureau of Investigation Agents ("State Troopers"), who contribute 11.5 percent. These contributions are placed in individual member accounts. Member contributions are tax-deferred for federal and state income tax purposes, effective July 1, 1984, and January 1, 1987, respectively. Prior to those dates contributions were made on an after-tax basis.

Members who terminate PERA-covered employment may request a refund of their member contribution account. PERA members requesting refunds receive interest on their contribution accounts from July 1, 1991, or the date of membership, whichever is later, until the date of withdrawal. The interest rate is set annually by the Board to equal the interest rate earned on 90-day U.S. Treasury Bills at the end of the previous year. However, the interest rate will not be less than the prevailing passbook savings rate in Colorado, nor will it be more than the actuarial investment assumption rate. The 1993 and 1992 interest rates were 3.13 percent and 4.1125 percent, respectively.

Notes to Combined Financial Statements

(In Thousands of Dollars)

Member refunds do not include employer contributions, and cancel any accrued PERA benefits. However, members who previously received a refund of their contributions may reinstate this service credit through lump-sum or installment payments when they have one year of earned service credit. Also, any PERA member can accelerate vesting by purchasing service credit for paid sabbatical leaves and certain periods of non-vested private or public sector employment not covered by PERA through lump-sum or installment payments.

PERA-affiliated employers also contribute a percentage of payroll. The contribution rates for the combined retirement benefits, cost-of-living increases and health care benefits were as follows:

		Contributions as a Percent of Members' Salaries			
Division	Membership	July 1, 1993	July 1, 1992	May 1, 1992	January 1, 1992
		through December 31, 1993	through June 30, 1993	through June 30, 1992	through April 30, 1992
State	All members except				
	State Troopers.....	11.6%	10.6%	5.6%	11.6%
	State Troopers.....	13.2%	12.2%	7.2%	13.2%
School	All members	11.6%	11.6%	12.2%	12.2%
Municipal	All members	10.0%	10.0%	10.0%	10.0%
Judicial	All members	15.0%	15.0%	15.0%	15.0%

These contributions are deposited in a trust fund established for each division for the purpose of creating actuarial reserves for future benefits.

Benefits

Members are eligible for service retirement benefits when they meet the following requirements:

<u>Minimum Service Credit</u>	<u>Minimum Age</u>
35 Years	Any Age
30 Years	55
20 Years	60
5 Years	65
60 Months on Payroll	65

PERA retirement benefits are equal to 2.5 percent of Highest Average Salary ("HAS") for each year of service credit through 20 years, and 1.5 percent of HAS for each year between 20 and 40 years. HAS is 1/12 of the average of the highest three annual salaries earned during calendar year periods on which PERA contributions were paid. The maximum benefit payable is 80 percent of HAS.

Members may also retire earlier with a reduced benefit at age 50 with 25 or more years of service credit, at age 55 with 20 or more years of service credit, or at age 60 with five or more years of service credit. A reduced service retirement benefit is calculated nearly the same as a service retirement benefit, then decreased by 0.333 percent for each month prior to the first eligible date for a service retirement. The reduction equals 4 percent per year. Members elect to receive their benefits in the form of single or joint-life monthly payments.

PERA also provides disability retirement and survivor benefits. Members who become permanently disabled with at least five years of earned service, six months of which have been earned since the most recent period of membership, are eligible to apply for disability retirement. This benefit is a percentage of HAS based on actual service credit, plus projected service to age 65 or 20 years of service, whichever is earlier. The HAS calculation is the same calculation used for service retirement. Disability retirees who retired after July 1, 1988, and who are under service retirement age, may have their benefits reduced based on earned income.

A minimum benefit of 25 percent of HAS is paid at some point to the qualified survivors of active members who die, provided such members have earned at least one year of service credit.

Retirement eligibility and benefits for State Troopers and members of the Judicial Division differ slightly.

Termination of PERA

If PERA is partially or fully terminated for any reason, State law provides that the rights of all members and benefit recipients to all benefits on the date of termination, to the extent then funded, will become nonforfeitable.



Notes to Combined Financial Statements

(In Thousands of Dollars)

Note 2 – Summary of Significant Accounting Policies:

Basis of Accounting and Presentation

The accompanying financial statements are prepared using the accrual basis of accounting, in accordance with generally accepted accounting principles applicable to governmental accounting for a pension trust fund under the criteria of Financial Accounting Standards Board ("FASB") Statement No. 35, *Accounting and Reporting by Defined Benefit Pension Plans*. The various funds have been presented on a combined basis, with all interfund balances and transactions eliminated in the combined financial statements. Certain 1992 balances have been reclassified to be consistent with the 1993 presentation.

Fund Accounting

The financial activities of each division, the Cost of Living Stabilization Fund, the Health Care Fund, the Insurance Dividend Reserve and the Common Operating Fund, are recorded in separate trust funds. All funds own a percentage of the combined investment fund, except for the Common Operating Fund. Each division maintains separate accounts, and all actuarial determinations are made using separate division-based information.

The Cost of Living Stabilization Fund ("CLSF") is funded by employer contributions equal to 2 percent of member salaries. These contributions are collected by each division and deposited in the CLSF. This supplemental benefit is paid directly to PERA's benefit recipients by each division, then reimbursed by transfers from the CLSF. On March 1, 1994, in accordance with House Bill 93-1324, the CLSF was terminated and its assets were transferred to the retirement benefits reserve within each of the four division trust funds. The 2 percent contribution earmarked for the CLSF will revert to the four division trust funds. All cost-of-living increases currently paid will become a part of the base benefit paid by the division trust funds. The calculation of total actuarial present value of accumulated plan benefits, included in the Combined Statement of Accumulated Plan Benefits and Combined Statement of Changes in Accumulated Plan Benefits, includes the effect of changes brought on by House Bill 93-1324.

The Health Care Fund ("HCF") is funded by employer contributions equal to 0.8 percent of member salaries. These contributions are collected by each division and deposited in the HCF. Beginning July 1, 1986, the HCF began subsidizing the premiums for benefit recipients enrolled in the Health Care Program. Calculation of the total actuarial present value of accumulated plan benefits, included in the Combined Statement of Accumulated Plan Benefits and Combined Statement of Changes in Accumulated Plan Benefits, does not include a provision for subsidized premiums from the HCF.

The Common Operating Fund ("COF") accounts for all administrative activities common to the divisions. Operating assets and liabilities held for all divisions are also recorded in the COF. The expenses incurred by PERA are allocated from the COF to the various divisions on the basis of the number of members and retirees in the division to the total membership in PERA. The net assets available for benefits within the COF are allocated to the division funds.

The Insurance Dividend Reserve ("IDR") is an accumulation of dividends received from an insurance company as a return on the premiums paid, adjusted for actual historical experience by members. The IDR is used to provide increased life insurance benefits without increasing premiums to life insurance participants.

Investments

Plan investments (excluding short-term investments) are presented at fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Other investments which do not have an established market (including participating mortgages, leveraged buyout funds and venture capital funds), are recorded at estimated fair values.

Corporate bonds which are not traded on a national or international exchange are based on equivalent values of comparable securities with similar yield and risk. Fixed rate mortgages are valued on the basis of future principal and interest payments, and are discounted at prevailing interest rates for similar instruments. The fair value of real estate and timber investments is based on independent appraisals. Guaranteed investment contracts (Note 4) are recorded at fair value, representing principal plus accrued interest at the stated contract rate discounted back.

Short-term investments are carried at cost, which approximates fair value.

A premium received on a covered call option written is recorded as a liability and is subsequently adjusted to the current market value of the option written and the resulting gain or loss is recognized currently in income. If an option is exercised, the premium is an adjustment to the gain or loss recognized. If the option expires, the remaining premium is recorded as a realized gain.

A futures contract is an agreement for delayed delivery of securities or money market instruments in which the seller agrees to make delivery at a specified future date of a specified instrument, at a specific price or yield. Upon entering into a futures contract, PERA is required

Notes to Combined Financial Statements

(In Thousands of Dollars)

to pledge to the broker an amount of cash equal to a certain percentage of the contract amount. The amount is known as the "initial margin." Subsequent payments, known as "variation margin," are made by PERA each day, depending on the daily fluctuations in the value of the underlying security. Such variation margin is recorded as a realized gain or loss for financial statement purposes.

During 1993 and 1992, the Plan's investments (including investments bought and sold, as well as those held for the year) appreciated in value by \$1,163,657 and \$158,891, respectively, as follows:

	1993	1992
Fair values measured by quoted prices in active markets:		
Cash and short-term investments	\$ 998	\$ 1,394
U.S. Government obligations.....	60,591	(8,242)
Domestic corporate bonds	84,718	(40,289)
Domestic stocks.....	493,695	266,512
International stocks and currency	381,034	(43,428)
International fixed income and currency	32,983	11,366
Taxable municipal bonds	8,141	2,278
Fair values measured otherwise:		
Guaranteed investment contracts	20,230	—
Fixed rate mortgages.....	5,447	(17,798)
Real estate.....	(13,505)	(40,361)
Participating mortgages	(4,625)	(558)
Leveraged buyout funds	29,308	10,818
Venture capital funds	37,972	(1,748)
Timber investments	26,670	18,947
Total	\$1,163,657	\$ 158,891

The Division trust funds, the CLSF, the HCF and the IDR pool their investments into a common investment portfolio. Investment value and earnings of the investment pool are allocated among the funds based on each fund's percentage ownership. As of December 31, 1993 and 1992, the ownership percentages of each fund were as follows:

	Ownership Percentage as of December 31	
	1993	1992
State.....	37.92 %	38.06 %
School	54.95	54.84
Municipal	5.11	5.07
Judicial	0.53	0.53
CLSF	0.85	0.83
HCF	0.54	0.56
IDR.....	0.10	0.11
Total	100.00 %	100.00 %

Actuarial Valuation

Accumulated plan benefits are future periodic payments, plus lump-sum distributions, which current members have earned to-date. These include benefits expected to be paid to retired or terminated members, or their cobeneficiaries, qualified survivors of members who have died, and present members and their cobeneficiaries.

The actuarial present value of accumulated plan benefits included in the Combined Statement of Accumulated Plan Benefits and Combined Statement of Changes in Accumulated Plan Benefits is presented according to Statement No. 35, "Accounting and Reporting by Defined Benefit Pension Plans".

The actuarial present value of accumulated plan benefits was calculated by the firm of Towers Perrin for 1993 and 1992 on the basis of the "accrued benefit" cost method. The resulting amount adjusts accumulated plan benefits to reflect the time value of money (through discounts for interest) and the probability of payment (using adjustments for death, disability, withdrawal and retirement) between the

Notes to Combined Financial Statements

(In Thousands of Dollars)

valuation date and the expected date of payment. The significant actuarial assumptions underlying the actuarial calculations for the years ended December 31, 1993 and 1992, are as follows:

Actuarial Assumptions	1993	1992
Investment return	8.5% compounded annually	8.5% compounded annually
Average retirement age*		
Men	Ranging from 56 to 66	Ranging from 60 to 65
Women	Ranging from 56 to 65	Ranging from 60 to 65
Life expectancy	Colorado Projected Experience Table - 90	Colorado Projected Experience Table - 90

*Depending on division.

These assumptions are based on the presumption that PERA will continue as a going concern. If the Association were to terminate, different actuarial assumptions and other factors might be applicable in determining the actuarial present value of accumulated plan benefits.

Unfunded Actuarial Accrued Liability

Contributions made to the divisions are determined by a statutorily defined rate. The adequacy of statutory rates is tested by means of annual actuarial valuations. The current contribution rates are sufficient to fully fund the cost of benefit commitments made to members. That is, they satisfy normal cost requirements (cost of service this year) and are expected to fund the unfunded portion of the actuarial accrued liability ("UAAL") over a reasonable period of future years. Contributions for December 31, 1993 and 1992, were as follows:

	Contributions	
	1993	1992
Contributions made by:		
Employers.....	\$ 277,076	\$ 266,773
Members.....	261,337	259,687
Total contributions	<u>\$ 538,413</u>	<u>\$ 526,460</u>
Contributions consisted of:		
Normal cost.....	\$ 403,023	\$ 442,873
Amortization of the UAAL.....	135,390	83,587
Total contributions	<u>\$ 538,413</u>	<u>\$ 526,460</u>
Amortization periods computed to fund UAAL	5-22 years	0-23 years

The UAAL is arrived at by reducing the total actuarial accrued liability by PERA plan assets on a smoothed market value basis. Future salary increases are included in the calculation.

For purposes of the contribution rate calculation, the unfunded actuarial accrued liability for the various divisions as of December 31, 1993 and 1992, was as follows:

	Unfunded Actuarial Accrued Liability	
	1993	1992
State	\$1,130,346	\$ 646,490
School.....	954,955	442,244
Municipal	35,133	(7,026)
Judicial.....	8,496	4,360
Total	<u>\$2,128,930</u>	<u>\$1,086,068</u>

Property and Equipment

Property and equipment are carried at cost, less accumulated depreciation. Costs of major additions and improvements are capitalized. Expenditures for maintenance and repairs are charged to operations as incurred. Depreciation is calculated using the straight-line method, with estimated lives ranging from 3 to 50 years.



Notes to Combined Financial Statements

(In Thousands of Dollars)

Federal Income Tax Status

PERA is exempt from federal income taxes under the Internal Revenue Code.

Note 3 – Other Post-Employment Benefits:

Cost of Living Stabilization Fund Benefits

The Cost of Living Stabilization Fund ("CLSF") was established in 1980 to offset inflation by providing increased benefits payable to benefit recipients of the Association. Under the program, the CLSF pays a benefit which is based on a percentage of the PERA initial benefit. The CLSF benefit is paid monthly and the percentage increases have been approved by the Colorado General Assembly, every other year on even numbered years.

The CLSF is advance funded, but not under an actuarially determined basis, by employer contributions equal to 2 percent of member salaries. In 1993, the CLSF received \$65,168 in contributions from employers. Also in 1993, the CLSF recognized \$62,010 of benefits paid. The net assets of the CLSF at December 31, 1993 and 1992, totaling \$125,891 and \$108,058, respectively, are included in net assets available for benefits presented in the Combined Statement of Net Assets Available for Benefits. See the discussion on changes to the CLSF in Note 2.

Health Care Benefits

The Health Care Fund ("HCF") was established in 1985 to provide a premium subsidy for health care to PERA benefit recipients who are eligible and choose to enroll in PERA's Health Care Program (the "Program"). The Colorado General Assembly approves the subsidy amount, which is provided monthly. In 1993, the HCF paid up to a fixed dollar amount and the benefit recipient paid the remaining portion of the premium. During the year, the maximum subsidy was \$115 for benefit recipients whose retirement benefits were based on 20 years or more of service credit. For those with less service credit, the subsidy was reduced by 5 percent (\$5.75) for each year under 20 years.

The Board has the authority to contract, self-insure and make disbursements necessary to carry out the purposes of the Program. PERA contracts with a major medical indemnity carrier to administer claims for self-insured plans, and with Health Maintenance Organizations providing services within Colorado.

The HCF is advance funded, but not under an actuarially determined basis, by employer contributions equal to 0.8 percent of member salaries. In 1993, the HCF received \$26,113 in contributions from employers, and \$16,459 in payments made by benefit recipients for their portion of PERA's self-insured plans. Also in 1993, the HCF recognized \$44,538 of benefits paid. The reserve for future post-employment health care benefits as of December 31, 1993 and 1992, totaled \$73,826 and \$66,263, respectively. The future projected liability of claims on the HCF was \$525,083 as of December 31, 1993, as calculated by PERA's consulting health care actuary, Buck Consultants.

Note 4 – Guaranteed Investment Contracts:

PERA has eight guaranteed notes (remaining from the original 13) issued by various insurance companies with a cost of \$383,828, earning interest at rates ranging from 9.10 to 9.44 percent, guaranteed through varying maturities in 1994 and 1995. Their current fair value is \$404,058.

As with other investments, PERA bears the risk of recovery should the issuers be unable to redeem the notes when due. The insurance firms issuing the eight remaining notes are rated as high quality by Moody's Investor's Service for issuers of guaranteed investment contracts.

In 1993, PERA adopted Statement of Financial Accounting Standards No. 110 (FAS 110), "Reporting by Defined Benefit Pension Plans of Investment Contracts." This statement requires a defined benefit pension plan to report an investment contract issued by either an insurance enterprise or other entity at fair value. The cumulative effect of adopting FAS 110 resulted in an appreciation of the Plan's guaranteed investment contracts of \$20,230 at December 31, 1993. It was not considered necessary to disclose the fair values of the guaranteed investment contracts for 1992 and 1991 separately because those amounts are not material.

Note 5 – Investments:

Investment Authority

Under Colorado Revised Statute 24-51-206, as amended, the Board has responsibility for the investment of PERA's funds, with the following investment limitations:

- The aggregate amount of monies invested in corporate stocks or corporate bonds, notes or debentures which are convertible into stock or in investment trust shares cannot exceed 65 percent of the then book value of the fund.

Notes to Combined Financial Statements

(In Thousands of Dollars)

- No investment of the fund in common or preferred stock (or both) of any single corporation can exceed 5 percent of the then book value of the fund.
 - The fund cannot acquire more than 12 percent of the outstanding stock or bonds of any single corporation.
- The above limitations and the fund's diversification over several asset classes reduce the overall investment risk exposure.

Cash and Short-Term Investments

The following table presents cash and short-term investments held by PERA as of December 31, 1993:

	Carrying Value	Bank Balance
Deposits (overdrafts) with banks (fully insured by federal depository insurance)	\$ (10,196)	\$ 1,371
Money market funds held at bank (fully collateralized by the underlying securities, held by PERA's agent in PERA's name)	233,640	233,640
Total cash and short-term investments	<u>\$ 223,444</u>	<u>\$ 235,011</u>

The differences between carrying values and bank balances are due to outstanding checks and deposits not yet processed by the bank.

Other Investments

The following table presents the remaining investments held by PERA at December 31, 1993, categorized to give an indication of the level of risk assumed by PERA. The categories are:

- (1) Insured or registered securities which are held by PERA or its agent in PERA's name.
- (2) Uninsured and unregistered, collateralized with securities held by the counterparty's trust department or agent in PERA's name.
- (3) Uncollateralized.

Investments not evidenced by securities are not categorized.

	Category			Amortized Cost	Fair Value
	1	2	3		
U.S. Government obligations	\$ 2,024,789	\$ —	\$ —	\$ 2,024,789	\$ 2,068,779
Domestic corporate bonds	1,582,163	—	—	1,582,163	1,595,923
Domestic stocks	4,904,253	—	—	4,904,253	6,291,997
International stocks and currency	1,336,250	—	—	1,336,250	1,718,818
International fixed income and currency	266,894	—	—	266,894	265,248
Taxable municipal bonds	25,855	—	—	25,855	22,049
Subtotal	<u>\$10,140,204</u>	<u>\$ —</u>	<u>\$ —</u>	10,140,204	11,962,814
Domestic corporate bonds				74,091	75,660
Guaranteed investment contracts				383,828	404,058
Fixed rate mortgages				461,840	410,113
Real estate				650,356	483,507
Participating mortgages				104,646	99,760
Leveraged buyout funds				128,152	154,343
Venture capital funds				88,848	113,426
Timber investments				57,905	93,413
Total investments				<u>\$12,089,870</u>	<u>\$13,797,094</u>

Notes to Combined Financial Statements

(In Thousands of Dollars)

International Investments

The Plan invests in international investments through the use of outside money managers. It is the intent of the Plan and the money managers to be fully invested; however, cash and short-term investments are held temporarily. At December 31, 1993 and 1992, the cash and short-term investments reported with international stocks and fixed income were as follows:

	1993	1992
International stocks and currency		
International stocks	\$1,649,152	\$1,216,160
Cash and short-term investments	69,666	74,190
Total	<u>\$1,718,818</u>	<u>\$1,290,350</u>
International fixed income and currency		
International fixed income	253,795	207,920
Cash and short-term investments	11,453	15,201
Total	<u>\$ 265,248</u>	<u>\$ 223,121</u>

Securities Lending

From time to time, PERA enters into various short-term agreements where investments are loaned to various brokers. These arrangements are collateralized by cash, letters of credit and marketable securities. They provide for the return of the investments and for a payment of a fee when the collateral is marketable securities or letters of credit, or interest earned when the collateral is cash on deposit. The securities on loan to the brokers are presented in the Combined Statement of Net Assets Available for Benefits at fair value.

At December 31, 1993, PERA had investments loaned with an aggregate fair value of \$1,611,204 and a total collateral value of \$1,649,166 or 102.36 percent of the total market value outstanding.

The loans are secured at all times by collateral at least equal to the market value of securities loaned. As with other extensions of credit, PERA may bear the risk of delay in recovery or even loss of rights in the collateral should the borrower of the securities fail financially.

Note 6 - Commitments and Contingencies:

At December 31, 1993, PERA was committed to the future purchase of investments at an aggregate cost of approximately \$299,715.

Certain legal proceedings are pending against PERA arising from its normal activities which, based on the facts presently available and the advice of legal counsel, will not have (on settlement) an adverse impact on PERA's financial condition.

Note 7 - Financial Instruments with Off-Balance-Sheet Risk:

PERA utilizes financial instruments with off-balance-sheet risk in the normal course of business to reduce its own exposure to fluctuations in the stock market. These financial instruments include options written and futures contracts. These instruments involve, to varying degrees, elements of market risk in excess of the amount recognized in the Combined Statements of Net Assets Available for Benefits. The following contract or notional amounts of these instruments reflect the extent of PERA's involvement in those classes of financial instruments:

Contracts	Description	Contract or Notional Value
58,046	Covered call options written	\$171,173
218	Futures contracts	\$ 24,174

Option contracts allow the holder of the option to purchase or sell a financial instrument at a specified price and within a specified period of time from or to the seller or "writer" of the option. As a writer of options, PERA receives a premium at the outset and then bears the risk of unfavorable changes in the price of the financial instrument underlying the option. Since these are exchange-traded options, PERA is not exposed to credit risk.

PERA has written \$171.2 million of covered call options on 247 companies as of December 31, 1993. Premiums received on the sales of these options were \$27.1 million and the market value as of December 31, 1993, was \$25.9 million.

Notes to Combined Financial Statements

(In Thousands of Dollars)

PERA invests in futures contracts that are not specific hedges. This is done for the purpose of leveraging its existing portfolio, or securities PERA intends to purchase, against fluctuations in value caused by changes in prevailing market conditions. The use of futures transactions involves the risk of imperfect correlation in movements in the price of futures contracts, market rates and the underlying assets.

Note 8 – Funding Status and Progress:

The amount shown below as “pension benefit obligation” is a standardized disclosure measure of the present value of pension benefits, adjusted for projected salary increases and estimated to be payable in the future as a result of current service credit.

The measure is the actuarial present value of credited projected benefits and is intended to help users assess PERA’s funding status on a going-concern basis, assess progress being made in accumulating sufficient assets to pay benefits when due and allow for comparisons among public employee retirement plans. This measure is independent of the actuarial funding method used to determine contributions to the Plan.

The pension benefit obligation was determined as part of an actuarial valuation of the Plan as of December 31, 1993 and 1992. Significant actuarial assumptions used in determining the pension benefit obligation include:

- ❑ A rate of return on the investment of present and future assets of 8.5 percent per year compounded annually.
- ❑ Projected salary increases of 5.5 percent per year compounded annually, attributable to inflation.
- ❑ Additional projected salary increases ranging from 0 to 12.9 percent per year depending on age, attributable to seniority/merit.
- ❑ The maximum annual increase is now 3.5 percent compounded annually, instead of 4 percent of the original benefit. The Cost of Living Stabilization Fund was transferred to plan assets on March 1, 1994. This transfer in asset values as of December 31, 1993, was recognized in this valuation.

At December 31, 1993 and 1992, assets in excess of pension benefit obligation, as determined in accordance with generally accepted accounting principles under Statement No. 5 of the Governmental Accounting Standards Board, *Disclosure of Pension Information by Public Employee Retirement Systems and State and Local Governmental Employers*, were as follows:

	State	School	Municipal	Judicial	Combined Totals	
					1993	1992
Pension Benefit Obligation						
Retirees and beneficiaries currently receiving benefits.....	\$2,834,811	\$3,287,636	\$272,867	\$37,496	\$ 6,432,810	\$ 4,794,696
Terminated members not yet receiving benefits.....	59,825	67,116	6,733	319	133,993	126,126
Current members:						
Accumulated employee contributions including allocated investment income.....	769,438	1,064,754	116,950	10,357	1,961,499	1,980,900
Employer financed – vested.....	1,763,936	2,732,565	214,796	21,554	4,732,851	4,307,131
Employer financed – non-vested.....	40,918	46,310	7,205	596	95,029	126,429
Total pension benefit obligation	<u>5,468,928</u>	<u>7,198,381</u>	<u>618,551</u>	<u>70,322</u>	<u>13,356,182</u>	<u>11,335,282</u>
Net assets available for benefits, at fair value (inclusive of CLSF assets)	<u>5,415,070</u>	<u>7,845,456</u>	<u>731,076</u>	<u>75,966</u>	<u>14,067,568</u>	<u>12,181,802</u>
Assets in excess of pension benefit obligation	<u>\$ (53,858)</u>	<u>\$ 647,075</u>	<u>\$112,525</u>	<u>\$ 5,644</u>	<u>\$ 711,386</u>	<u>\$ 846,520</u>

Note 9 – Ten-Year Historical Trend Information (Unaudited):

Historical trend information, designed to provide information about the progress PERA has made in accumulating sufficient assets to pay promised benefits, is presented in the Schedule of Funding Progress on the following page. This schedule is not a required part of the basic financial statements, but is presented as supplementary information according to Statement No. 5 of the Governmental Accounting Standards Board.

Notes to Combined Financial Statements

(In Thousands of Dollars)

Schedule of Funding Progress*

Expressing the net assets available for benefits as a percentage of the pension benefit obligation provides one indication of the Association's funding status on a going-concern basis. Analysis of this percentage over time indicates the financial strength of the system. Generally, the greater the percentage, the stronger the retirement system. Trends in pension benefit obligation in excess of assets and is compared to annual covered payroll are both affected by inflation. Expressing the assets in excess of inflation aids analysis of PERA's progress made in accumulating sufficient assets to pay benefits when due.

Fiscal Year	(1) Net Assets Available for Benefits**	(2) Pension Benefit Obligation	(3) Percentage Funded (1) ÷ (2)	(4) Pension Benefit Obligation in Excess of (Less Than) Assets (2) - (1)	(5) Annual Covered Payroll	(6) Pension Benefit Obligation in Excess of (Less Than) Assets as a Percentage of Covered Payroll (4) ÷ (5)
1993						
State	\$ 5,415,070	\$ 5,468,928	99.02%	\$ 53,858	\$1,398,002	3.85%
School	7,845,456	7,198,381	108.99	(647,075)	1,790,555	(36.14)
Municipal.....	731,076	618,551	118.19	(112,525)	245,471	(45.84)
Judicial	75,966	70,322	108.03	(5,644)	17,279	(32.66)
Totals	<u>\$ 14,067,568</u>	<u>\$ 13,356,182</u>	<u>105.33%</u>	<u>\$ (711,386)</u>	<u>\$3,451,307</u>	<u>(20.61)%</u>
1992	\$ 12,181,802	\$ 11,335,282	107.47%	\$ (846,520)	\$3,436,694	(24.63)%
1991	11,448,389	10,392,124	110.16	(1,056,265)	3,213,117	(32.87)
1990	9,506,158	9,455,989	100.53	(50,169)	2,912,712	(1.72)
1989	9,361,998	8,580,346	109.11	(781,652)	2,755,113	(28.37)
1988	7,941,163	7,863,928	100.98	(77,235)	2,642,686	(2.92)
1987	6,994,675	7,210,454	97.01	215,779	2,531,358	8.52
1986	6,654,457	6,223,736	106.92	(430,721)	2,409,384	(17.88)

* The information for years prior to 1986 is unavailable.

** At fair value, including CLSF assets in 1993 only.

Schedule I – Combining Statement of Net Assets Available for Benefits

As of December 31, 1993, with Comparative Combined Totals for 1992
(In Thousands of Dollars)

	State Division Trust Fund	School Division Trust Fund
Assets		
Investments, at fair value:		
U.S. Government obligations.....	\$ 784,024	\$1,136,915
Domestic corporate bonds.....	633,495	918,633
Domestic stocks	2,384,536	3,457,820
International stocks and currency	651,396	944,592
International fixed income and currency.....	100,523	145,769
Guaranteed investment contracts.....	153,130	222,053
Fixed rate mortgages.....	155,424	225,381
Real estate	183,239	265,715
Participating mortgages	37,807	54,825
Leveraged buyout funds	58,493	84,819
Venture capital funds.....	42,986	62,333
Timber investments	35,401	51,336
Taxable municipal bonds	8,356	12,117
Total investments	<u>5,228,810</u>	<u>7,582,308</u>
Receivables:		
Employers	21,021	23,384
Investment settlements and income	32,204	46,700
Other	2,378	3,722
Total receivables	<u>55,603</u>	<u>73,806</u>
Cash and short-term investments	<u>84,684</u>	<u>122,800</u>
Property and equipment, at net cost	<u>—</u>	<u>—</u>
Total assets	<u>5,369,097</u>	<u>7,778,914</u>
Liabilities and Reserves		
Investment settlements and other	<u>2,463</u>	<u>3,675</u>
Reserves:		
Insurance dividend reserve.....	—	—
Health care fund.....	—	—
Total reserves	<u>—</u>	<u>—</u>
Total liabilities and reserves	<u>2,463</u>	<u>3,675</u>
Commitments and contingencies (Note 6)	<u>—</u>	<u>—</u>
Net assets available for benefits	<u>\$5,366,634</u>	<u>\$7,775,239</u>

The assets and liabilities of the Combined Investment Fund have been allocated to the trust funds on a pro rata basis.

Municipal Division Trust Fund	Judicial Division Trust Fund	Cost of Living Stabilization Fund	Health Care Fund	Common Operating Fund	Insurance Dividend Reserve	Combined Totals	
						1993	1992
\$105,790	\$10,971	\$ 17,666	\$11,269	\$ —	\$ 2,144	\$ 2,068,779	\$ 1,785,375
85,479	8,865	14,274	9,105	—	1,732	1,671,583	1,620,698
321,751	33,368	53,728	34,274	—	6,520	6,291,997	5,083,031
87,894	9,115	14,677	9,363	—	1,781	1,718,818	1,290,350
13,564	1,407	2,265	1,445	—	275	265,248	223,121
20,662	2,143	3,450	2,201	—	419	404,058	551,120
20,972	2,175	3,502	2,234	—	425	410,113	414,283
24,725	2,564	4,129	2,634	—	501	483,507	418,331
5,101	529	852	543	—	103	99,760	104,269
7,893	819	1,318	841	—	160	154,343	133,484
5,800	602	969	618	—	118	113,426	84,534
4,777	495	798	509	—	97	93,413	55,871
1,128	117	188	120	—	23	22,049	17,793
<u>705,536</u>	<u>73,170</u>	<u>117,816</u>	<u>75,156</u>	<u>—</u>	<u>14,298</u>	<u>13,797,094</u>	<u>11,782,260</u>
3,208	508	—	(62)	—	—	48,059	50,545
4,345	451	726	463	—	88	84,977	113,362
344	5	5,488	4,761	(13,973)	1,201	3,926	2,968
<u>7,897</u>	<u>964</u>	<u>6,214</u>	<u>5,162</u>	<u>(13,973)</u>	<u>1,289</u>	<u>136,962</u>	<u>166,875</u>
<u>11,427</u>	<u>1,184</u>	<u>1,908</u>	<u>1,217</u>	<u>(8)</u>	<u>232</u>	<u>223,444</u>	<u>439,887</u>
—	—	—	—	14,736	—	14,736	14,639
<u>724,860</u>	<u>75,318</u>	<u>125,938</u>	<u>81,535</u>	<u>755</u>	<u>15,819</u>	<u>14,172,236</u>	<u>12,403,661</u>
343	31	47	7,709	755	882	15,905	33,831
—	—	—	—	—	14,937	14,937	13,707
—	—	—	73,826	—	—	73,826	66,263
—	—	—	73,826	—	14,937	88,763	79,970
<u>343</u>	<u>31</u>	<u>47</u>	<u>81,535</u>	<u>755</u>	<u>15,819</u>	<u>104,668</u>	<u>113,801</u>
—	—	—	—	—	—	—	—
<u>\$724,517</u>	<u>\$75,287</u>	<u>\$125,891</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$14,067,568</u>	<u>\$12,289,860</u>

Schedule II - Combining Statement of Changes in Net Assets Available for Benefits

For the Year Ended December 31, 1993, with Comparative Combined Totals for 1992

(In Thousands of Dollars)

	State Division Trust Fund	School Division Trust Fund
Investment income:		
Interest.....	\$ 141,648	\$ 204,641
Dividends.....	61,471	88,808
Net appreciation in fair value of investments.....	442,205	638,803
Real estate operating income, net.....	13,605	19,656
Foreign exchange translation gains (losses).....	5,638	8,145
Total investment income	<u>664,567</u>	<u>960,053</u>
Contributions:		
Employers.....	110,902	147,969
Members.....	107,515	134,501
Retiree health care premiums.....	—	—
Service credit purchases.....	8,210	10,547
Total contributions	<u>226,627</u>	<u>293,017</u>
Transfers:		
Benefits paid to retirees/cobeneficiaries.....	(228,216)	(257,520)
Benefits paid to survivors.....	(6,975)	(5,802)
Benefits paid for health care participants.....	—	—
Refunds of contribution accounts, including interest.....	(12,062)	(11,672)
Other, net.....	19,145	25,265
Total transfers	<u>(228,108)</u>	<u>(249,729)</u>
Administrative expenses	<u>(5,543)</u>	<u>(8,075)</u>
Net (increase) decrease in insurance dividend reserve, net of administrative fees	<u>—</u>	<u>—</u>
Net increase in reserve for health care fund	<u>—</u>	<u>—</u>
Net increase	657,543	995,266
Net assets available for benefits:		
Beginning of year	<u>4,709,091</u>	<u>6,779,973</u>
End of year	<u>\$5,366,634</u>	<u>\$7,775,239</u>

¹ Employer contributions into this fund are as follows: State, \$26,685; School, \$33,624; Municipal, \$4,535; Judicial, \$324.

² Employer contributions into this fund are as follows: State, \$10,674; School, \$13,450; Municipal, \$1,859; Judicial, \$130.

³ Transfers from this fund are as follows: State, \$29,745; School, \$29,417; Municipal, \$2,348; Judicial, \$500.

The investment income of the Combined Investment Fund has been allocated to the trust funds on a pro rata basis.

Municipal Division Trust Fund	Judicial Division Trust Fund	Cost of Living Stabilization Fund	Health Care Fund	Common Operating Fund	Insurance Dividend Reserve	Combined Totals	
						1993	1992
\$ 18,957	\$ 1,977	\$ 3,129	\$ 2,030	\$ —	\$ 386	\$ 372,768	\$ 404,364
8,226	857	1,358	881	—	968	162,569	153,996
59,157	6,170	9,764	6,342	—	1,216	1,163,657	158,891
1,821	190	300	195	—	37	35,804	33,402
754	79	124	81	—	16	14,837	(79,235)
<u>88,915</u>	<u>9,273</u>	<u>14,675</u>	<u>9,529</u>	<u>—</u>	<u>2,623</u>	<u>1,749,635</u>	<u>671,418</u>
16,228	1,977	65,168 ¹	26,113 ²	—	—	368,357	360,179
18,025	1,296	—	—	—	—	261,337	259,687
—	—	—	16,459	—	—	16,459	14,409
336	79	—	—	—	—	19,172	9,468
<u>34,589</u>	<u>3,352</u>	<u>65,168</u>	<u>42,572</u>	<u>—</u>	<u>—</u>	<u>665,325</u>	<u>643,743</u>
(20,647)	(3,246)	—	—	—	—	(509,629)	(440,327)
(1,049)	(290)	—	—	—	—	(14,116)	(13,211)
—	—	—	(44,538)	—	—	(44,538)	(40,904)
(3,017)	—	—	—	—	—	(26,751)	(32,674)
(272)	471	(62,010) ³	4	1,657	(1,393)	(17,133)	(21,031)
<u>(24,985)</u>	<u>(3,065)</u>	<u>(62,010)</u>	<u>(44,534)</u>	<u>1,657</u>	<u>(1,393)</u>	<u>(612,167)</u>	<u>(548,147)</u>
<u>(976)</u>	<u>(37)</u>	<u>—</u>	<u>—</u>	<u>(1,657)</u>	<u>—</u>	<u>(16,288)</u>	<u>(14,736)</u>
—	—	—	—	—	(1,230)	(1,230)	887
—	—	—	(7,567)	—	—	(7,567)	(5,184)
97,543	9,523	17,833	—	—	—	1,777,708	747,981
626,974	65,764	108,058	—	—	—	12,289,860	11,541,879
<u>\$724,517</u>	<u>\$75,287</u>	<u>\$125,891</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$14,067,568</u>	<u>\$12,289,860</u>

Schedule III - Combining Statement of Accumulated Plan Benefits

As of December 31, 1993, with Comparative Combined Totals for 1992
(In Thousands of Dollars)

	<u>State Division Trust Fund</u>
Actuarial present value of accumulated plan benefits:	
Vested benefits:	
Benefit recipients.....	\$2,834,811
Other members.....	<u>1,761,589</u>
Total vested benefits.....	4,596,400
Non-vested benefits.....	<u>379,433</u>
Total actuarial present value of accumulated plan benefits.....	<u><u>\$4,975,833</u></u>

Schedule IV - Combining Statement of Changes in Accumulated Plan Benefits

For the Year Ended December 31, 1993, with Comparative Combined Totals for 1992
(In Thousands of Dollars)

	<u>State Division Trust Fund</u>
Actuarial present value of accumulated plan benefits at beginning of year.....	\$3,983,961
Increase (decrease) during the year attributable to:	
Benefits accumulated and interest amortization, net of refunds.....	1,227,063
Benefits paid.....	<u>(235,191)</u>
Actuarial present value of accumulated plan benefits at end of year.....	<u><u>\$4,975,833</u></u>

School Division Trust Fund	Municipal Division Trust Fund	Judicial Division Trust Fund	Combined Totals	
			1993	1992
\$3,287,636	\$272,867	\$37,496	\$ 6,432,810	\$4,794,696
<u>2,588,295</u>	<u>215,361</u>	<u>23,410</u>	<u>4,588,655</u>	<u>3,922,539</u>
5,875,931	488,228	60,906	11,021,465	8,717,235
<u>557,925</u>	<u>61,524</u>	<u>2,243</u>	<u>1,001,125</u>	<u>826,958</u>
<u>\$6,433,856</u>	<u>\$549,752</u>	<u>\$63,149</u>	<u>\$12,022,590</u>	<u>\$9,544,193</u>

School Division Trust Fund	Municipal Division Trust Fund	Judicial Division Trust Fund	Combined Totals	
			1993	1992
\$5,075,329	\$432,998	\$51,905	\$ 9,544,193	\$8,968,489
1,621,849	138,450	14,780	3,002,142	1,029,242
<u>(263,322)</u>	<u>(21,696)</u>	<u>(3,536)</u>	<u>(523,745)</u>	<u>(453,538)</u>
<u>\$6,433,856</u>	<u>\$549,752</u>	<u>\$63,149</u>	<u>\$12,022,590</u>	<u>\$9,544,193</u>





*Supporting
Schedules for
Financial
Section*

Unaudited

Public Employees Retirement Association of Colorado



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Schedule of Administrative Expenses

For the Years Ended December 31, 1993 and 1992

	1993	1992
Personnel services:		
Salaries	\$ 7,104,027	\$ 6,714,881
Employee benefits	1,903,983	1,627,200
Total personnel services	9,008,010	8,342,081
Staff education:		
Tuition assistance program	68,494	92,453
PERA-required education	242,236	287,074
Other	699	270
Total staff education	311,429	379,797
Professional contracts:		
Actuarial contracts	104,657	150,230
Audits	102,873	96,050
Medical exams	259,800	251,160
Investment counsel	182,076	111,242
Legal and legislative counsel	415,158	433,640
Computer services and consulting	407,702	415,696
Management consulting	291,101	127,855
Health care consultants	200,105	90,706
Other	117,821	116,503
Total professional contracts	2,081,293	1,793,082
Miscellaneous:		
Equipment rental & services	470,984	455,076
Memberships	82,742	78,073
Publications & subscriptions	58,197	43,134
Travel and local expense	337,217	311,131
Board fiduciary expense	22,082	130,540
Auto expense	16,454	20,102
Telephone	138,356	136,359
Postage	497,265	548,294
Insurance	119,073	112,209
Printing	320,845	321,993
Office supplies	731,503	285,656
Building rent, supplies & utilities	285,629	299,796
Other	6,327	24,880
Total miscellaneous	3,086,674	2,767,243
Total budgeted expense	14,487,406	13,282,203
Depreciation expense	1,439,722	1,459,323
Total expense	15,927,128	14,741,526
Interfund transactions	359,029	(4,229)
Total administrative expense	\$16,286,157	\$14,737,297
Allocation of administrative expense:		
State Division	\$ 6,170,077	\$ 5,581,162
School Division	8,989,445	8,171,773
Municipal Division	1,085,961	943,278
Judicial Division	40,674	41,084
Total allocation	\$16,286,157	\$14,737,297

Schedule of Cash Receipts and Disbursements

For the Years Ended December 31, 1993 and 1992

(In Thousands of Dollars)

	<u>1993</u>	<u>1992</u>
Cash balance at beginning of year	\$ (14,214)	\$ (8,997)
Add cash receipts:		
Contributions:		
Members	261,337	259,687
Employers	368,357	360,179
Health care fund	16,459	14,409
Investment income	926,746	803,045
Other receipts	19,172	9,468
Total cash receipts	<u>\$ 1,592,071</u>	<u>\$ 1,446,788</u>
Less cash disbursements:		
New investment purchases	\$ 959,598	\$ 889,122
Benefit payments	568,283	494,442
Refunds	26,751	32,674
Administrative expenses	16,288	14,736
Other	17,133	21,031
Total cash disbursements	<u>\$ 1,588,053</u>	<u>\$ 1,452,005</u>
Cash balance at end of year	<u>\$ (10,196)</u>	<u>\$ (14,214)</u>

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Schedule of Disbursements by Function¹

(In Thousands of Dollars)

	Contribution Refunds	Interest Paid	Benefit Payments ²	Administrative Expenses ³	Total Expenses
State Division					
1984	\$14,951	\$ —	\$ 87,948	\$ 1,960	\$104,859
1985	15,246	—	99,239	2,248	116,733
1986	13,358	—	111,483	2,810	127,651
1987	13,735	—	126,099	2,993	142,827
1988	14,679	—	143,901	3,035	161,615
1989	19,942	—	155,956	4,134	180,032
1990	15,750	—	170,434	4,031	190,215
1991	14,005	—	185,345	4,559	203,909
1992	15,339	621	205,937	4,919	226,816
1993	11,331	731	235,191	5,543	252,796
School Division					
1984	\$13,868	\$ —	\$ 81,989	\$ 2,726	\$ 98,583
1985	13,290	—	92,511	3,173	108,974
1986	12,152	—	103,500	4,015	119,667
1987	11,108	—	118,194	4,318	133,620
1988	11,575	—	137,135	4,355	153,065
1989	14,419	—	153,409	5,872	173,700
1990	13,200	—	172,787	5,775	191,762
1991	11,113	—	195,372	6,607	213,092
1992	12,082	541	225,225	7,202	245,050
1993	10,923	749	263,322	8,075	283,069
Municipal Division					
1984	\$ 2,715	\$ —	\$ 7,137	\$ 314	\$ 10,166
1985	2,796	—	8,008	365	11,169
1986	2,661	—	9,352	470	12,483
1987	2,690	—	10,860	516	14,066
1988	3,358	—	12,703	520	16,581
1989	4,017	—	13,856	683	18,556
1990	3,640	—	15,248	663	19,551
1991	3,176	—	16,880	758	20,814
1992	3,815	150	19,146	831	23,942
1993	2,832	185	21,696	976	25,689
Judicial Division					
1984	\$ 41	\$ —	\$ 1,496	\$ 15	\$ 1,552
1985	85	—	1,664	17	1,766
1986	66	—	1,886	21	1,973
1987	171	—	2,241	22	2,434
1988	43	—	2,446	24	2,513
1989	28	—	2,660	32	2,720
1990	31	—	2,825	32	2,888
1991	85	—	3,047	36	3,168
1992	120	6	3,230	36	3,392
1993	—	—	3,536	37	3,573

¹ Information for 1986-1993 is on an accrual basis; information for prior years is on a cash basis.

² Benefit payments include both retirement and survivor benefit payments.

³ Totals for 1986-1993 does not include the Health Care Fund, the Common Operating Fund or the Insurance Dividend Reserve.

Schedule of Receipts by Source

(In Thousands of Dollars)

	Member Contributions ¹	Employer Contributions ¹	Investment Income ²	Service Credit Purchases ³	Misc. Income ⁴	Total Revenues
State Division						
1984.....	\$ 66,838	\$ 101,341	\$ 178,807	\$ —	\$ 26	\$ 347,012
1985.....	71,777	108,263	251,086	—	34	431,160
1986.....	75,086	87,901	333,992	—	41	497,020
1987.....	79,757	83,022	68,972	—	41	231,792
1988.....	82,706	86,733	321,160	—	—	490,599
1989.....	86,146	100,439	507,304	—	—	693,889
1990.....	90,971	106,133	2,789	1,818	—	201,711
1991.....	111,081	141,456	697,957	3,414	—	953,908
1992.....	107,865	97,956	255,610	3,711	—	465,142
1993.....	107,515	110,902	664,567	8,210	—	891,194
School Division						
1984.....	\$ 80,604	\$ 126,826	\$ 243,906	\$ —	\$ 30	\$ 451,366
1985.....	89,181	138,009	329,785	—	49	557,024
1986.....	98,030	117,210	447,388	—	47	662,675
1987.....	104,176	119,167	91,707	—	13	315,063
1988.....	108,280	123,744	446,556	—	—	678,580
1989.....	114,701	138,821	716,172	—	—	969,694
1990.....	117,852	142,783	5,560	4,337	—	270,532
1991.....	114,237	121,016	1,002,861	6,534	—	1,244,648
1992.....	132,446	150,641	367,376	5,524	—	655,987
1993.....	134,501	147,969	960,053	10,547	—	1,253,070
Municipal Division						
1984.....	\$ 10,977	\$ 13,938	\$ 21,744	\$ —	\$ 8	\$ 46,667
1985.....	12,033	15,305	30,812	—	7	58,157
1986.....	13,029	12,044	41,087	—	7	66,167
1987.....	13,738	12,693	8,368	—	7	34,806
1988.....	14,488	12,848	42,562	—	—	69,898
1989.....	14,236	13,169	66,472	—	—	93,877
1990.....	15,781	14,600	529	130	—	31,040
1991.....	16,127	14,707	93,397	450	—	124,681
1992.....	18,122	16,259	34,683	216	—	69,280
1993.....	18,025	16,228	88,915	336	—	123,504
Judicial Division						
1984.....	\$ 874	\$ 1,476	\$ 2,831	\$ —	\$ —	\$ 5,181
1985.....	879	1,623	3,469	—	—	5,971
1986.....	875	1,365	4,438	—	—	6,678
1987.....	872	1,207	1,065	—	—	3,144
1988.....	958	1,401	4,559	—	—	6,918
1989.....	1,023	1,585	7,181	—	—	9,789
1990.....	1,047	1,599	31	28	—	2,705
1991.....	1,143	1,754	9,791	14	—	12,702
1992.....	1,254	1,917	3,552	17	—	6,740
1993.....	1,296	1,977	9,273	79	—	12,625

¹ The member and employer contribution rate history can be found on page 67. Employer contributions for 1986-1993 are net of Health Care Fund and Cost of Living Stabilization Fund contributions.

² Investment income for 1986-1993 does not include amounts allocated to the Health Care Fund, Cost of Living Stabilization Fund and Common Operating Fund.

³ Receipts for purchased service credit in 1990-1993 are shown as separate line items. In previous years, they were combined with "Other Net Transfers" in the Financial Statements.

⁴ Membership fees not available for benefits. Membership fee discontinued after 1987.





Investments

Section

Unaudited

Public Employees Retirement Association of Colorado

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PERA Investment Policy Summary

State Law

State law gives complete responsibility for the investment of PERA's funds to the Board of Trustees, with some stipulations including:

- ❑ The aggregate amount of monies invested in corporate stocks or corporate bonds, notes or debentures which are convertible into stock or in investment trust shares cannot exceed 65 percent of the then book value of the fund.
- ❑ No investment of the fund in common or preferred stock (or both) of any single corporation can exceed 5 percent of the then book value of the fund.
- ❑ The fund cannot acquire more than 12 percent of the outstanding stock or bonds of any single corporation.

Goal

The function of the Public Employees' Retirement Association is to provide present and future retirement or survivor benefits for its members. In keeping with that function, the preservation of capital is of paramount importance.

The future investment performance of the fund directly affects its future financial strength. Earnings of portfolio assets in excess of the assumed actuarial rate of return reduce unfunded actuarial liabilities. However, the greater the expected return the higher the risk, and thus, the greater the volatility of expected returns.

Policy

The fund is long-term in nature and the selection of investments is regulated by: statutory limitation, investment time horizon, the limits of acceptable risk and the objective of optimizing the total rate of return. The Deputy Executive Director of Investments is authorized to execute investment transactions on behalf of the Board.

Investment decisions shall be made under the framework of the goal established for the rate of return, limits of acceptable risk and fund objectives. The goal is to optimize the return of the portfolio, as opposed to maximizing the rate of return.

The optimal portfolio mix is one that carefully equates expected rate of return with expected risk of all investment categories utilized in the portfolio. In setting the optimal mix of assets for the portfolio, the Board has developed a strategic (long-term) asset allocation policy which incorporates a diversified asset mix.

The targeted strategic asset allocation is designed to provide an optimal diversification, in order to reduce risk and maximize total rate of return relative to risk. Since the investment time horizon of the portfolio is long-term, and the portfolio is constructed to avoid the necessity of liquidating holdings to meet benefit payments, liquidity is not a first consideration. However, every reasonable effort will be made to provide protection for the portfolio in future deteriorating markets.

The Board recognizes that individual investment holdings contain substantially higher risk than portfolios constructed of such holdings. Consequently, primary emphasis will be given to diversification of the portfolio on an optimal basis, utilizing the diversified strategic asset allocation mix.

While efforts can be made to maintain the quality of individual holdings, it is recognized that the utilization of certain non-traditional asset categories such as venture capital and leveraged buyout funds, international equities, guaranteed investment contracts and real estate may contain substantially higher risk than with individual issues. Consequently, primary effort will be made to reduce the risk of the total portfolio through optimal diversification, as opposed to concentrating on individual issues.

The portfolio will be managed by a carefully constructed mix of internal and external management. No holding will be considered a "permanent" part of the portfolio. Any security can be sold at any time either to increase gains or decrease losses.

The targeted strategic asset allocation is designed to provide the optimal mix of asset categories over the investment time horizon of the portfolio. In doing so, characteristics of expected return, risk and correlation of return of the various asset categories have been carefully projected. Both traditional (cash, bonds, domestic stocks, fixed income, mortgages) and non-traditional (real estate, guaranteed investment contracts, international investments, including stocks and fixed income, and other alternative investments) will be incorporated into the targeted strategic asset mix.

Preference will be given to Colorado investments, all other things being equal. However, in order to provide optimal portfolio diversification by geographical location and asset categories, and to maintain fiduciary responsibility, investments located within Colorado can be up to 20 percent of the aggregate (combined) portfolio at cost. Within the 20 percent, every effort will be made to further diversify the available asset classes (commercial real estate mortgages, common stock holdings, corporate debt, equity ownership of real estate, residential mortgage pools and venture capital).

In making investment decisions, the Board shall avail itself of the highest caliber advice obtainable both internally and externally. This advice may include the internal investment staff, outside investment managers selected for both traditional and non-traditional asset classes, and investment consultants selected by the Board for specific expertise in implementing and carrying out the portfolio process.

Generally accepted accounting principles (GAAP) will be followed in accounting for the portfolio, however, GAAP should not restrict investment decisions. Securities recorded at original cost, adjusted cost and market value will be reported to the Board. The firm engaged for the annual audit shall be consulted when questions concerning accounting issues arise. An annual evaluation shall be conducted by a performance evaluation service from the investment industry.

In addition, the annual external audit and the annual actuarial evaluation shall be reviewed in conjunction with evaluation of investment performance. All evaluations will be related to the Association's stated goals. Because these goals are long-term, cumulative performance results will be considered as more important than performance in any one year.

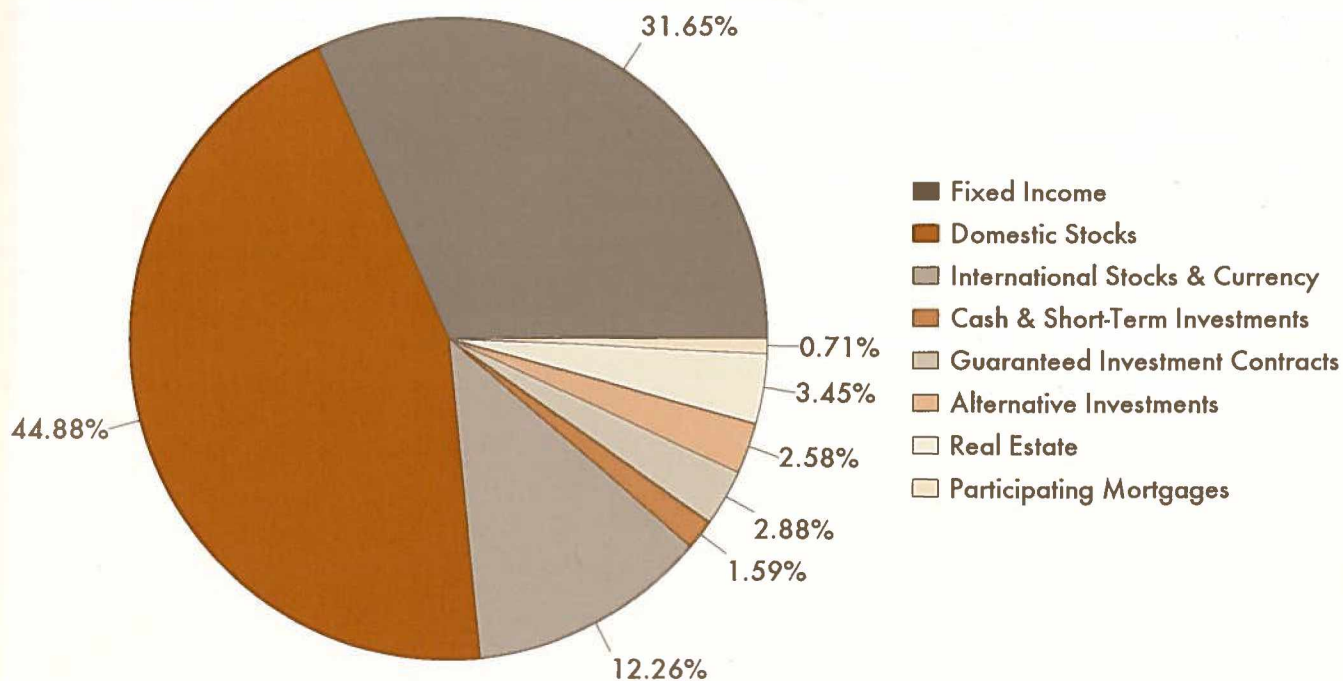
Investment Summary

(In Thousands of Dollars)

Type of Investment	January 1, 1993		December 31, 1993		% Total Market
	Amortized Cost	Market Value	Amortized Cost	Market Value	
Cash and short-term investments	\$ 438,724	\$ 439,887	\$ 221,296	\$ 223,444	1.59%
Fixed income:					
U.S. Government obligations	1,743,651	1,785,375	2,024,789	2,068,779	14.76%
Taxable municipal bonds	29,740	17,793	25,855	22,049	0.16%
Domestic corporate bonds	1,623,504	1,620,698	1,656,254	1,671,583	11.92%
Fixed rate mortgages	468,298	414,283	461,840	410,113	2.92%
International fixed income and currency	225,605	223,121	266,894	265,248	1.89%
Total fixed income	4,090,798	4,061,270	4,435,632	4,437,772	31.65%
Domestic stocks	4,053,819	5,083,031	4,904,253	6,291,997	44.88%
International stocks and currency	1,278,913	1,290,350	1,336,250	1,718,818	12.26%
Real estate	572,772	418,331	650,356	483,507	3.45%
Participating mortgages	104,269	104,269	104,646	99,760	0.71%
Guaranteed investment contracts	551,120	551,120	383,828	404,058	2.88%
Alternative investments:					
Timber investments	37,466	55,871	57,905	93,413	0.67%
Venture capital funds	80,966	84,534	88,848	113,426	0.81%
Leveraged buyout funds	126,555	133,484	128,152	154,343	1.10%
Total alternative investments	244,987	273,889	274,905	361,182	2.58%
Total investments	\$11,335,402	\$12,222,147	\$12,311,166	\$14,020,538	100.00%

1993 Investments Chart

At Market as of December 31, 1993





Fund Performance Evaluation

Evaluation

PERA retains R.V. Kuhns and Associates to evaluate its fund performance. In their analysis, R.V. Kuhns includes all investments within the portfolio, including cash and accrued income. They also make the calculations using post-closing amounts for annual rates of return.

Asset Allocation

As of December 31, 1993, the fund was well-diversified and in line with the Association's strategic asset allocation policy. Over the last five years, the fund has averaged 47.3 percent invested in domestic and international stocks, 38.8 percent in bonds, 4.1 percent in cash and short-term investments, and 9.0 in other assets.

During 1993, assets at market value were allocated within the following ranges of the total portfolio: domestic and international stocks, 49.2 to 56.5 percent; bonds, 31.9 to 37.1 percent; cash and short-term investments, 1.1 to 5.4 percent; and other assets, 9.2 to 11.9 percent.

Total Portfolio Results

For the year ended December 31, 1993, the total fund had a positive rate of return of 14.9 percent, compared to the Custom Benchmark return of 13.4 percent and the Public Median Public Fund return of 12.1 percent. The Custom Benchmark return is a weighted composite of PERA's assets in proportion to the asset classes in the total fund. The Public Median Fund measure is comprised of 96 different public pension funds used for comparative analysis. These two funds are used to determine the effectiveness of the Association's portfolio managers compared to these benchmarks.

During 1993, PERA continued to expand its investment focus globally. Free market economies are slowly emerging around the world, hence the high rate of return both PERA and its benchmark experienced in the international stock and bond arena. Also, in-depth analysis in the domestic stock and bond markets helped the Association and its managers determine which economic sectors would perform better than others, creating higher than expected returns.

The Association's annualized rate of return over the last five years was 11.8 percent, comfortably exceeding inflation and the actuarial assumption rate. The return over the last 10 years was 11.8 percent.

Domestic Stocks

PERA's domestic stock portfolio achieved a 12.2 percent rate of return in 1993, well above the Standard and Poor's 500 benchmark return of 10 percent for the year.

With moderate interest rates and inflation, PERA's stock portfolio positioning in economically-sensitive stocks benefited from the continued recovery.

International Stocks

In 1993, PERA's eight international equity managers continued to invest in selected international stocks. The benchmark by which these managers are evaluated is the Europe-Australia-Far East (EAFE) Index.

Because of the increased free-market activity in Europe and Asia, international stocks outperformed all other markets. PERA's 1993 composite portfolio result for international equities was 31.7 percent compared to the EAFE return of 33.3.

Domestic Bonds

PERA's fixed income performance is compared to the Lehman Brothers Government Corporate Index. For 1993, the Association achieved a positive rate of return of 11.9 percent, compared to the Index return of 9.8 percent.

International Bonds

Funding continued for international bond purchases. The benchmark by which international bonds are measured is the Shearson World Government Bond Index.

PERA's international bonds achieved a 18.4 percent rate of return in 1993, 5.2 percent above the Shearson return of 13.3 percent.

Real Estate

For the second year in a row, PERA's real estate portfolio had a positive rate of return. In 1993, PERA's portfolio reached a 5.6 percent rate of return, well above the Institutional Property Consultants (IPC) return of 1.9 percent and the Frank Russell/NCREIF return of 0.9 percent.

On an income basis, PERA's real estate portfolio produced a 9.1 percent return during the year versus the IPC return of 7.7 percent and the NCREIF return of 8.8 percent. PERA's income return has outperformed both of the benchmarks for the last five years.

However, the appreciation return has not been as strong due to the real estate recession in the early 1990s, earlier recognition than other investors in the marketplace of needed property devaluations (as a result of overbuilding), and slower regional economies.

Annual Rates of Return

	1989	1990	1991	1992	1993	5-Year Annualized
Total portfolio:						
PERA	17.2%	1.5%	20.1%	6.4%	14.9%	11.8%
Public Median Fund	18.8%	2.8%	21.7%	7.1%	12.1%	12.2%
Custom Benchmark	19.0%	1.7%	19.9%	5.4%	13.4%	11.6%
Domestic stocks:						
PERA	30.4%	-3.5%	29.6%	8.7%	12.2%	14.7%
Standard and Poor's 500	31.5%	-3.2%	30.6%	7.7%	10.0%	14.5%
International stocks:						
PERA	16.4% ¹	-15.4%	12.7%	-6.5%	31.7%	6.5%
Europe-Australia-Far East Index (EAFE)	11.1%	-22.9%	12.9%	-11.5%	33.3%	2.6%
Domestic bonds:						
PERA	14.3%	7.6%	16.9%	7.3%	11.9%	11.5%
Lehman Brothers Government Corporate Index	14.2%	8.3%	16.1%	7.6%	11.0%	11.4%
International bonds:						
PERA	N/A	N/A	N/A	5.9% ²	18.4%	N/A
Salomon World Government Bond Index	-3.4%	15.3%	16.2%	4.8%	13.3%	9.0%
Real estate/participating mortgages:						
PERA total	-0.1%	-6.1%	-7.5%	0.5%	5.6%	-1.6%
Income return	6.4%	6.3%	7.1%	7.9%	9.1%	7.3%
Property value increase/decrease	-6.1%	-11.7%	-13.9%	-7.4%	-3.3%	-8.6%
Institutional Property Consultants Index total	5.4%	0.7%	-4.4%	-3.9%	1.9%	-0.1%
Income return	5.4%	5.2%	4.8%	6.5%	7.7%	5.9%
Property value increase/decrease	-0.1%	-4.4%	-8.9%	-10.4%	-5.5%	-5.9%
Frank Russell/NCREIF Index total	6.2%	1.5%	-6.1%	-4.6%	0.9%	-0.5%
Income return	6.7%	6.7%	6.9%	7.7%	8.8%	7.3%
Property value increase/decrease	-0.5%	-5.0%	-12.3%	-11.7%	-7.4%	-7.5%

¹ 1989 was the first full year PERA invested in international stocks.

² 1992 was the first full year PERA invested in international bonds.

Colorado Investment Profile

The Association continues to seek out high-quality Colorado investments. Total PERA investments in Colorado are valued at more than \$902 million, an increase of \$23 million from 1992.

Commercial mortgages.....	\$118,600,000
Committed to future funding	72,000,000
Common stock of companies headquartered in Colorado	57,000,000
Corporate bonds and notes	38,800,000
Real estate	141,500,000
State and local bonds.....	21,500,000
Funds under management of Colorado companies (venture capital and stock managers)	453,000,000
Total	\$902,400,000

Investments Section

As of December 31, 1993

	Shares Held	Cost	Market Value
Equity funds:			
Small Cap Equity Fund	7,051,650	\$ 114,361,223	\$ 163,063,156
S&P 500 Index Fund	61,766,531	1,978,267,921	2,654,178,970
S&P 500 Index Options	N/A	(27,138,935)	(25,905,469)
Index Tilt Fund	19,158,489	624,928,803	828,876,075
S&P Mid Cap Index Fund	20,275,516	484,404,726	574,224,084
Momentum Fund	4,098,650	94,512,525	112,465,938
Growth Fund	7,150,500	300,584,744	306,755,166
Venture Capital Equity Distribution	185,392	3,193,031	2,721,627
LBO Equity Distribution	65,123	773,336	781,476
Subtotal	119,751,851	\$ 3,573,887,374	\$ 4,617,161,023
Actively Managed Funds:			
ADC Telecommunications, Inc.	300,000	\$ 4,106,722	\$ 10,687,500
Abbott Laboratories	250,000	2,112,880	7,406,250
Aetna Life & Casualty Co.	218,800	8,490,070	13,210,050
AMBAC, Inc.	32,000	1,388,981	1,344,000
American Bankers Insurance Group	53,800	1,395,178	1,412,250
American General Corporation	150,000	5,017,693	4,293,750
American International Group, Inc.	132,500	9,706,876	11,626,875
American Telephone & Telegraph Co.	300,000	12,489,370	15,750,000
AMP, Inc.	300,000	13,692,468	18,937,500
AmSouth Bancorporation	12,300	409,383	384,375
Anadarko Petroleum Corp.	225,000	6,185,608	10,209,375
Apache Corp.	300,000	6,813,660	7,012,500
Apple Computer, Inc.	31,500	1,087,884	921,375
Argonaut Group, Inc.	11,900	405,017	362,950
Armco Inc.	600,000	2,907,781	3,675,000
Atlantic Richfield Co.	105,000	11,829,878	11,051,250
Autodesk, Inc.	100,000	4,243,091	4,500,000
Avnet, Inc.	325,000	8,660,260	12,675,000
BB&T Financial Corp.	12,300	396,675	408,975
BP Prudhoe Bay Royalty Trust	13,300	398,831	324,188
Baker Hughes, Inc.	600,000	15,832,149	12,000,000
Ball Corp.	151,200	4,140,563	4,573,800
Banc One Corp.	218,125	4,600,455	8,534,141
Bancorp Hawaii, Inc.	23,700	1,010,336	971,700
Bank of New York Co., Inc.	18,200	1,008,553	1,037,400
Bankers Trust New York Corp.	5,700	411,134	451,013
BanPonce Corp.	32,500	1,010,216	1,007,500
Baroid Corp.	600,000	3,754,000	4,950,000
Bell Atlantic Corp.	260,400	15,631,229	15,428,700
Blockbuster Entertainment Corp.	525,000	6,286,654	16,078,125
Boatmen's Bancshares, Inc.	13,400	395,903	400,325

	Shares Held	Cost	Market Value
Boeing Co.	200,000	\$ 9,805,060	\$ 8,650,000
Boston Bancorp	11,600	371,606	417,600
Bowater Inc.	250,000	5,898,270	5,750,000
Bristol-Myers Squibb Co.	100,000	3,896,796	5,825,000
Brush Wellman, Inc.	588,900	8,466,932	8,391,825
CBI Industries, Inc.	260,000	6,826,926	7,897,500
Calgon Carbon Corp.	380,000	6,045,286	4,940,000
Carnival Cruise Lines, Inc.	360,000	10,974,293	17,055,000
Carpenter Technology Corp.	56,000	2,634,860	3,248,000
Caterpillar, Inc.	150,000	7,018,078	13,350,000
Central Fidelity Banks, Inc.	12,900	392,225	357,975
Chevron Corp.	150,000	7,230,097	13,068,750
Cincinnati Gas & Electric Co.	450,000	9,635,742	12,375,000
Citicorp	27,200	983,688	1,003,000
Columbia Gas System, Inc. (The)	57,500	1,402,686	1,286,563
Columbia/HCA Healthcare Corp.	413,125	11,825,899	13,684,766
Commercial Federal Corp.	18,200	418,500	361,725
Computer Associates International, Inc.	253,400	2,109,888	10,136,000
Consolidated Natural Gas Co.	40,000	1,866,954	1,880,000
Continental Bank Corp.	41,200	1,016,198	1,086,650
Cooper Industries, Inc.	300,000	7,043,754	14,775,000
CoreStates Financial Corp.	36,700	1,018,989	977,138
Cragin Financial Corp.	27,100	1,006,307	1,012,863
Cypress Semiconductor Corp.	400,000	5,518,935	5,450,000
Dauphin Deposit Corp.	16,000	401,875	404,000
Dean Witter Discover & Co.	25,600	973,824	886,400
Dentsply International, Inc.	60,000	2,355,000	2,640,000
Destec Energy, Inc.	26,000	432,136	373,750
Detroit Edison Company	200,000	6,737,000	6,000,000
Dexter Corp.	300,000	6,532,833	7,050,000
Disney (Walt) Co.	300,000	12,006,870	12,787,500
Dominion Resources Inc.	180,000	5,883,700	8,167,500
Donnelley (R.R.) & Sons Co.	250,000	7,350,913	7,781,250
Dover Corp.	260,000	11,049,577	15,795,000
Dow Chemical Co.	162,600	9,884,681	9,227,550
Dresser Industries, Inc.	731,000	9,137,436	15,168,250
Du Pont (E.I.) De Nemours & Co.	190,000	8,629,176	9,167,500
Dun & Bradstreet Corp.	200,000	9,508,897	12,325,000
EG&G, Inc.	331,200	6,298,764	6,085,800
E-Systems, Inc.	259,800	11,242,694	11,268,825
Ecolab, Inc.	93,000	2,753,165	4,185,000
Edwards A.G., Inc.	51,000	1,445,493	1,466,250
Emerson Electric Co.	275,000	10,056,634	16,568,750
Enron Corp.	400,000	7,300,000	11,600,000
ENSERCH Corp.	500,000	9,400,210	8,125,000

	Shares Held	Cost	Market Value
Entergy Corp.	230,000	\$ 5,552,502	\$ 8,280,000
Exabyte Corp.	27,800	385,725	489,975
EXEL Ltd.	22,200	999,888	985,125
Fidelity National Financial, Inc.	27,000	385,805	729,000
First Alabama Bancshares, Inc.	43,000	1,410,188	1,392,125
First of America Bank Corp.	26,300	1,022,065	1,032,275
First Bank System Inc.	13,600	412,051	418,200
First Financial Corp. (WIS)	87,300	1,383,257	1,462,275
First Hawaiian, Inc.	14,000	405,500	346,500
First Republic Bancorp, Inc.	66,100	988,318	941,925
First Union Corp.	210,000	5,923,849	8,662,500
Firstfed Michigan Corp.	64,800	1,410,330	1,652,400
Flights Safety International, Inc.	60,000	2,367,737	2,055,000
Foothill Group, Inc.	111,200	1,438,020	1,848,700
Fremont General Corp.	16,350	367,519	404,663
GTE Corp.	400,000	12,716,071	14,000,000
Gannett Co., Inc.	250,000	10,943,199	14,312,500
Gap, Inc.	175,000	6,577,517	6,890,625
General Electric Co.	180,000	13,033,362	18,877,500
General Re Corp.	100,000	9,271,262	10,700,000
General Signal Corp.	400,000	8,851,688	13,750,000
Genuine Parts Company	300,000	9,510,017	11,287,500
Gillette Company	200,000	10,587,235	11,925,000
Golden West Financial Corp.	25,000	979,125	975,000
Halliburton Co.	370,000	10,575,518	11,793,750
Hasbro, Inc.	100,000	3,532,109	3,625,000
Herbalife International, Inc.	95,800	1,411,078	1,700,450
Hewlett-Packard Co.	125,000	6,615,910	9,875,000
Honeywell, Inc.	300,000	11,355,630	10,275,000
Humana Inc.	1,050,000	15,515,676	18,637,500
Huntington Bancshares, Inc.	17,050	408,667	402,806
Illinois Power Co.	300,000	6,832,713	6,637,500
Illinois Tool Works, Inc.	210,000	7,625,100	8,190,000
Ingersoll-Rand Co.	394,600	7,920,632	15,093,450
Inland Steel Industries, Inc.	100,000	2,166,650	3,312,500
Integra Financial Corp.	30,500	1,373,646	1,311,500
Intel Corp.	195,900	4,079,836	12,145,800
Johnson & Johnson	100,000	1,692,013	4,487,500
Keystone International, Inc.	400,000	11,157,615	10,950,000
King World Productions, Inc.	26,900	1,056,613	1,032,288
LDDS Communications, Inc.	287,850	11,113,752	13,888,763
Laidlaw Inc. C1-B Non	590,000	8,514,571	4,056,250
LEGENT Corp.	43,700	1,071,263	988,713
Leggett & Platt, Inc.	200,000	4,461,825	10,000,000
Lilly (Eli) & Co.	117,600	8,446,979	6,982,500

	Shares Held	Cost	Market Value
Lincoln National Corp.	250,000	\$ 8,464,887	\$ 10,875,000
Litton Industries, Inc.	60,000	3,193,724	3,870,000
Loews Corp.	10,300	979,687	957,900
Louisiana Land & Exploration Co.	236,400	10,629,001	9,485,550
Loyola Capital Corp.	27,800	419,919	427,425
M/A-Com, Inc.	599,400	4,095,604	5,169,825
MBIA Inc.	104,800	5,353,594	6,589,300
MCI Communications Corp.	574,000	11,408,009	16,215,500
MCN Corp.	300,000	8,498,245	10,425,000
Marion Merrell Dow, Inc.	48,200	1,020,153	867,600
Marshall & Ilsley Corp.	44,900	1,020,770	1,060,763
Mattel, Inc.	300,000	8,135,380	8,287,500
Mercantile Bankshare Corp.	18,750	388,125	358,594
Mercury General Corp.	12,400	397,234	372,000
Metropolitan Financial Corp.	82,010	1,415,828	1,353,165
Michaels Stores, Inc.	80,000	2,748,126	2,860,000
Minnesota Mining & Manufacturing Co.	70,000	4,617,289	7,612,500
Mobil Corp.	150,000	7,135,979	11,868,750
Morgan J.P. & Co.	6,000	409,310	416,250
Morrison Knudsen Corp.	430,000	9,684,191	10,803,750
Motorola Inc.	130,000	3,005,597	11,992,500
NWNL Companies, Inc. (The)	30,700	980,315	982,400
Nalco Chemical Co.	346,900	8,091,135	13,008,750
National Semiconductor Corp.	56,700	946,028	921,375
Navistar International Corp.	100,000	3,499,031	2,362,500
Newmont Mining Corp.	100,000	4,105,000	5,762,500
Northrop Corp.	10,400	401,114	388,700
Norwest Corp.	390,000	4,893,346	9,506,250
ONBANCorp, Inc.	12,000	406,750	421,500
Oregon Steel Mills, Inc.	300,000	6,787,863	7,537,500
Orion Capital Corp.	11,750	393,729	374,531
PNC Bank Corp.	47,600	1,409,601	1,380,400
Pacific Crest Capital, Inc.	7,413	44,475	52,819
Parker-Hannifin Corp.	230,600	7,520,226	8,705,150
Policy Management Systems Corp.	38,600	1,024,707	1,196,600
Procter & Gamble Co.	250,000	12,616,209	14,250,000
Protective Life Corp.	11,100	401,598	488,400
Public Service Co. of Colo.	340,000	8,219,429	10,922,500
Quaker State Corp.	250,000	3,067,651	3,343,750
Raytheon Co.	193,400	8,461,836	12,764,400
Repsol, S.A.	15,900	399,050	490,913
Republic New York Corp.	8,200	401,319	383,350
Rite Aid Corp.	325,000	7,287,964	5,159,375
Rockwell International Corp.	200,000	6,769,217	7,425,000
Rollins Environmental Services, Inc.	763,200	8,649,630	4,388,400

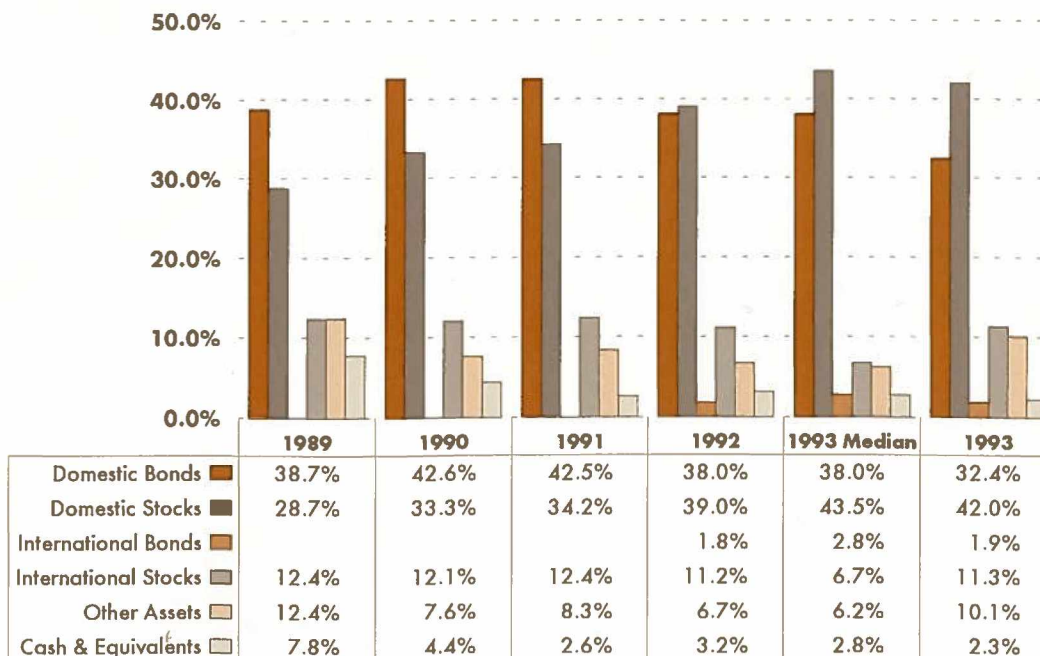
	Shares Held	Cost	Market Value
Royal Dutch Petroleum Co.	100,000	\$ 5,256,385	\$ 10,437,500
Russ Berrie and Co., Inc.	74,100	1,044,052	1,130,025
SCEcorp	291,800	5,235,692	5,836,000
SFFed Corp.	26,500	428,251	490,250
SafeCard Services, Inc.	33,000	408,500	622,875
St. Paul Companies, Inc. (The)	11,200	1,007,835	1,006,600
Schlumberger Ltd.	162,000	10,639,408	9,578,250
Shared Medical Systems Corp.	325,000	6,673,444	8,084,375
Sherwin-Williams Co.	550,000	13,012,568	19,662,500
Signet Banking Corp.	15,400	425,454	535,150
Skyline Corp.	155,000	2,606,106	3,061,250
Snap-On Tools Corp.	225,000	7,476,942	8,521,875
Sonat Inc.	500,000	12,888,035	14,437,500
SouthTrust Corp.	21,300	412,425	404,700
Sprint Corp.	340,000	9,828,578	11,815,000
Standard Federal Bank	33,500	1,006,340	1,005,000
Star Banc Corp.	10,800	403,650	378,000
Stratus Computer, Inc.	35,900	1,037,772	1,126,363
Student Loan Marketing Association	22,100	1,006,434	991,738
Sturm Ruger & Co., Inc.	36,000	1,038,416	895,500
Sun Company, Inc.	200,000	5,436,230	5,875,000
SunAmerica, Inc.	38,700	1,375,552	1,673,775
Sundstrand Corp.	200,000	6,496,119	8,400,000
SunTrust Banks, Inc.	22,700	994,321	1,021,500
Texaco, Inc.	175,000	10,871,470	11,331,250
Thiokol Corp.	179,600	3,770,458	4,759,400
Thomas & Betts Corp.	200,000	10,978,626	11,700,000
Toys 'R' Us, Inc.	260,000	4,615,595	10,627,500
Union Camp Corp.	206,900	8,891,599	9,853,613
Union Carbide Corp.	200,000	3,729,925	4,475,000
Union Pacific Corp.	220,000	7,417,639	13,777,500
U S WEST Communications, Inc.	340,000	12,399,942	15,597,500
United Technologies Corp.	125,000	5,866,963	7,750,000
Universal Health Realty Income Trust	23,000	402,173	382,375
Valero Energy Corp.	200,000	4,768,563	4,225,000
Washington Federal Savings & Loan Association	37,700	999,121	984,913
Washington National Corp.	19,500	471,817	468,000
Westvaco Corp.	150,000	5,092,902	5,343,750
Williams Companies, Inc. (The)	540,000	10,134,375	13,162,500
Wilmington Trust Corp.	34,800	984,367	913,500
Wyle Laboratories	35,200	597,170	682,000
Total actively managed fund	37,372,323	\$ 1,020,387,460	\$ 1,277,595,067
Total domestic stocks	156,873,659	\$ 4,594,274,834	\$ 5,894,756,090

Externally Managed Equities & Fixed Income Assets

As of December 31, 1993

	Cost	Market Value
Domestic stock managers:		
Denver Investment Advisors.....	\$ 105,186,409	\$ 147,498,046
Janus Capital Corp.	110,998,662	133,525,906
United Capital Management.....	111,806,937	134,230,873
Total	\$ 327,992,008	\$ 415,254,825
International stock managers:		
Alliance Capital Management Corp.	\$ 273,698,323	\$ 313,727,765
Baring International Investment Ltd.	135,000,000	257,060,858
Brinson Partners, Inc.	203,977,098	248,152,231
Dunedin Fund Managers Ltd.	106,550,692	136,036,483
Morgan Grenfell Asset Management	173,838,140	213,295,680
Nomura Capital Management, Inc.	164,947,761	212,300,656
Philippe Investment Management, Inc.	178,237,655	211,003,353
Schroder Capital Management International.....	100,000,000	127,241,291
Total	\$ 1,336,249,669	\$ 1,718,818,317
Domestic bond managers:		
Fischer Francis Trees & Watts	\$ 279,637,748	277,507,971
LM Capital Management.....	30,089,494	31,826,866
NCM Capital Management.....	30,761,285	31,416,497
Trust Company of the West.....	221,713,296	267,389,626
Equitable Capital/Alliance Capital Private Placement.....	28,613,974	28,622,274
Total	\$ 590,815,797	\$ 636,763,234
International bond manager:		
Julius Baer Investment Management	\$ 266,894,401	\$ 265,248,098
Total externally managed equities and fixed income assets.....	\$ 2,521,951,875	\$ 3,036,084,474

Average Percent of Asset Allocation Graph





Investment Brokers/Advisors

A.G. Edwards
Alex Brown & Sons Inc.
Bear Stearns & Co., Inc.
Cabot Partners
Chicago Corp.
Dean Witter Reynolds, Inc.
Dillon Read & Co.
Donaldson Lufkin & Jenrette
Equitable Real Estate
First Boston Corp.
First Chicago Corp.
George K. Baum, & Co.

Goldman Sachs & Co.
Hanifen, Imhoff Inc.
Heitman Advisory Corp.
InstiNet Corp.
INVESCO Realty Advisors
J.P. Morgan Securities, Inc.
Kidder, Peabody & Co., Inc.
La Salle Advisors Ltd.
Lehman Brothers Inc.
L & B Real Estate Counsel
Lynch Jones & Ryan
Merrill Lynch & Co., Inc.

Metric Realty Advisors
Oppenheimer & Co., Inc.
Paine Webber Inc.
Piper Jaffray Inc.
Prudential Realty Investors
Prudential Securities Inc.
RREEF
Salomon Brothers, Inc.
Security Capital Realty
Smith Barney Shearson Inc.
W.G. Trading Co.
Zell/Merrill Lynch Opportunity Partners



Actuarial

Section

Unaudited

Public Employees Retirement Association of Colorado

Actuarial Section
AD 5080

Report of the Independent Actuary

One Tabor Center
1200 Seventeenth Street, Suite 1200
Denver, CO 80202-5812
303 628-4000
Fax: 303 628-4090

Towers Perrin

May 20, 1994

The Board of Trustees
Public Employees' Retirement Association
of Colorado
1300 Logan Street
Denver, Colorado 80203

Ladies and Gentlemen:

The basic financial objective of PERA is to establish and receive contributions which, when expressed as percents of active member payroll, will remain approximately level from generation to generation of active members.

Progress toward this objective is measured by means of annual actuarial valuations which determine present financial position and test the adequacy of established contribution rates. The latest completed actuarial valuations were based upon data and assumptions as of December 31, 1993. These valuations indicate that the contribution rates, established by statute for benefits then in effect, are consistent with the basic financial objective.

The actuarial valuations were based upon assumptions regarding future experience in various risk areas that were adopted by the Board in 1992. We believe these assumptions produce results which, in the aggregate, are reasonable.

Based upon the valuation results, it is our opinion that the Public Employees' Retirement Association of Colorado continues in sound financial condition.

Sincerely,



Gene H. Wickes, F.S.A



David C. LeSueur, F.S.A.



Summary of Actuarial Methods and Assumptions

Actuarial Methods:

The ultimate cost that a retirement plan such as PERA incurs equals benefits paid plus the expenses resulting from administration and financing. These costs are paid for through contributions to the plan and investment earnings on the plan's assets.

Using the plan's schedule of benefits, member data and a carefully selected set of actuarial assumptions, the plan's actuary estimates the cost of the benefits which will be paid. Then, using a particular actuarial funding method, the actuary allocates these costs and determines a systematic manner to fund for future plan benefits.

In the case of PERA (as well as most public sector plans), the objective is to fund in a manner which keeps contribution rates approximately level from generation to generation. The funding method best designed to keep annual costs level as a percent of pay is the "Entry Age Actuarial Cost Method." This method is described briefly below.

Entry Age Actuarial Cost Method

Under the Entry Age Actuarial Cost Method, projected pension, termination, disability and death benefits are determined for all active members. Cost factors, which are developed to produce level annual costs in each year from the age at hire (entry age) to the assumed retirement age, are applied to the projected benefits to determine what the "normal cost" should be. The normal cost is the portion of the total cost of the plan allocated to the current year. The "actuarial accrued liability" for active members is then calculated as the portion of the total cost of the plan allocated to prior years.

The actuarial accrued liability for members currently receiving benefits, for active members beyond the assumed retirement age, and for members entitled to deferred benefits, is equal to the present value of the benefits expected to be paid. No normal costs are now payable for these participants.

The excess of the total actuarial accrued liability over the value of the plan assets is called the "unfunded actuarial accrued liability." Funding requirements under the Entry Age Actuarial Cost Method are determined by adding the normal cost and an amortization of the unfunded liability. (In PERA's case, the amortization period cannot exceed 60 years.)

The actuarial assumptions discussed to the right are used to determine projected benefits and cost factors. The effect of differences between these assumptions and the actual experience of the plan is calculated each year when the annual actuarial valuation is performed. These differences produce either actuarial gains or losses which result in an adjustment of the unfunded liability.

Asset Valuation Method

The method for valuing assets is intended to recognize a "smoothed" market value of assets. This means that the difference between actual market value actuarial gains and the expected actuarial gains is recognized over a four-year period.

Actuarial Assumptions:

The following economic and non-economic actuarial assumptions were adopted in 1992 by PERA's Board of Trustees based on advice from the consulting actuary. The assumptions, which are reviewed in depth every five years, are used to project the plan's future experience.

Economic Assumptions

The investment return rate used in the valuations is 8.5 percent per year compounded annually (net after administrative expenses). The real rate of return is the portion of the total investment return which is in excess of the inflation rate. Considering other financial assumptions, the 8.5 percent investment return rate translates into an assumed real rate of return of 3 percent.

The overall member payroll is assumed to increase 5.5 percent annually. Pay increase assumptions for individual members are shown for sample ages in Exhibits A, B, C and D. At each age, 5.5 percent of the increase is attributable to the assumed inflation rate, and the remainder is for merit and seniority increases. Judicial Division pay increases (Exhibit D) are determined by the State Legislature.

Non-Economic Assumptions

A mortality table (Colorado Projected Experience Table - 90) is based on PERA experience. The table is used to estimate the value of benefits expected to be paid. Related values are shown in Exhibit F. For disability retirement, impaired longevity is recognized by basing benefit values on an adjusted age midway between attained age and normal retirement age.

The probabilities of age and service retirement are shown in Exhibit G. They were updated in 1993 to reflect the plan change of age 50 and 25 years of service credit early retirement option.

The probabilities of withdrawal from service, disability and death-in-service are shown for sample ages in Exhibits A, B, C, D and E. It was assumed that all members terminating before age 35 (with less than five years of service) would withdraw their contributions and forfeit their PERA benefits. The percentage of members who terminate after age 35 and elect to withdraw their contributions is assumed to equal 4 percent times the number of years that their age at termination is before age 60 (for example, 4 percent at age 59 and 80 percent at age 40).

Separations From Employment Before Retirement and Individual Pay Increase Assumptions

Exhibit A — State Division

Members Other Than State Troopers

Sample Ages	Percent of Members Separating Within the Next Year						Pay Increase Assumptions for an Individual Member		
	Withdrawal		Death		Disability		Merit & Seniority	Base (Economy)	Increase Next Year
	Men	Women	Men	Women	Men	Women			
20.....	8.00%	10.00%	0.05%	0.03%	0.01%	0.01%	5.00%	5.50%	10.50%
25.....	8.00%	10.00%	0.06%	0.03%	0.04%	0.04%	3.70%	5.50%	9.20%
30.....	6.33%	9.54%	0.08%	0.05%	0.06%	0.06%	2.70%	5.50%	8.20%
35.....	4.71%	7.86%	0.11%	0.07%	0.20%	0.20%	2.00%	5.50%	7.50%
40.....	4.04%	6.00%	0.16%	0.09%	0.27%	0.27%	1.40%	5.50%	6.90%
45.....	4.00%	5.15%	0.29%	0.14%	0.43%	0.43%	1.00%	5.50%	6.50%
50.....	4.00%	4.90%	0.53%	0.22%	0.83%	0.83%	0.80%	5.50%	6.30%
55.....	4.00%	4.65%	0.72%	0.29%	1.12%	1.12%	0.60%	5.50%	6.10%
60.....	4.00%	4.50%	0.91%	0.44%	1.20%	1.20%	0.40%	5.50%	5.90%
65.....	4.00%	4.50%	1.42%	0.77%	1.20%	1.20%	—%	5.50%	5.50%

State Troopers

Sample Ages	Percent of Members Separating Within the Next Year						Pay Increase Assumptions for an Individual Member		
	Withdrawal		Death		Disability		Merit & Seniority	Base (Economy)	Increase Next Year
	Men	Women	Men	Women	Men	Women			
20.....	6.00%	6.00%	0.05%	0.03%	0.01%	0.01%	5.00%	5.50%	10.50%
25.....	6.00%	6.00%	0.06%	0.03%	0.04%	0.04%	3.70%	5.50%	9.20%
30.....	5.10%	5.10%	0.08%	0.05%	0.06%	0.06%	2.70%	5.50%	8.20%
35.....	2.70%	2.70%	0.11%	0.07%	0.20%	0.20%	2.00%	5.50%	7.50%
40.....	1.60%	1.60%	0.16%	0.09%	0.27%	0.27%	1.40%	5.50%	6.90%
45.....	1.10%	1.10%	0.29%	0.14%	0.43%	0.43%	1.00%	5.50%	6.50%
50.....	1.00%	1.00%	0.53%	0.22%	0.83%	0.83%	0.80%	5.50%	6.30%
55.....	1.00%	1.00%	0.72%	0.29%	1.12%	1.12%	0.60%	5.50%	6.10%
60.....	1.00%	1.00%	0.91%	0.44%	1.20%	1.20%	0.40%	5.50%	5.90%
65.....	1.00%	1.00%	1.42%	0.77%	1.20%	1.20%	—%	5.50%	5.50%

Exhibit B — School Division

Sample Ages	Percent of Members Separating Within the Next Year						Pay Increase Assumptions for an Individual Member		
	Withdrawal		Death		Disability		Merit & Seniority	Base (Economy)	Increase Next Year
	Men	Women	Men	Women	Men	Women			
20.....	7.71%	8.00%	0.05%	0.03%	0.01%	0.01%	2.49%	5.50%	7.99%
25.....	7.41%	8.00%	0.06%	0.03%	0.04%	0.04%	2.49%	5.50%	7.99%
30.....	5.77%	7.60%	0.08%	0.05%	0.05%	0.05%	1.70%	5.50%	7.20%
35.....	3.80%	5.56%	0.11%	0.07%	0.12%	0.12%	1.51%	5.50%	7.01%
40.....	3.11%	4.26%	0.16%	0.09%	0.19%	0.19%	1.14%	5.50%	6.64%
45.....	3.00%	3.69%	0.29%	0.14%	0.32%	0.32%	0.79%	5.50%	6.29%
50.....	3.00%	3.50%	0.53%	0.22%	0.76%	0.76%	0.60%	5.50%	6.10%
55.....	3.00%	3.50%	0.72%	0.29%	1.10%	1.10%	0.50%	5.50%	6.00%
60.....	3.00%	3.50%	0.91%	0.44%	1.20%	1.20%	0.49%	5.50%	5.99%
65.....	3.00%	3.50%	1.42%	0.77%	1.20%	1.20%	—%	5.50%	5.50%

Exhibit C — Municipal Division

Percent of Members Separating Within the Next Year

Pay Increase Assumptions for an Individual Member

Sample Ages	Withdrawal		Death		Disability		Merit & Seniority	Base (Economy)	Increase Next Year
	Men	Women	Men	Women	Men	Women			
20.....	8.00%	10.00%	0.05%	0.03%	0.01%	0.01%	7.40%	5.50%	12.90%
25.....	8.00%	10.00%	0.06%	0.03%	0.04%	0.04%	5.00%	5.50%	10.50%
30.....	6.33%	9.54%	0.08%	0.05%	0.06%	0.06%	3.40%	5.50%	8.90%
35.....	4.71%	7.86%	0.11%	0.07%	0.20%	0.20%	2.20%	5.50%	7.70%
40.....	4.04%	6.00%	0.16%	0.09%	0.27%	0.27%	1.40%	5.50%	6.90%
45.....	4.00%	5.15%	0.29%	0.14%	0.43%	0.43%	0.90%	5.50%	6.40%
50.....	4.00%	4.90%	0.53%	0.22%	0.83%	0.83%	0.60%	5.50%	6.10%
55.....	4.00%	4.65%	0.72%	0.29%	1.12%	1.12%	0.50%	5.50%	6.00%
60.....	4.00%	4.50%	0.91%	0.44%	1.20%	1.20%	0.30%	5.50%	5.80%
65.....	4.00%	4.50%	1.42%	0.77%	1.20%	1.20%	—%	5.50%	5.50%

Exhibit D — Judicial Division

Percent of Members Separating Within the Next Year

Pay Increase Assumptions for an Individual Member

Sample Ages	Withdrawal		Death		Disability		Seniority	Base (Economy)	Increase Next Year
	Men	Women	Men	Women	Men	Women			
30.....	2.00%	2.00%	0.08%	0.05%	0.06%	0.06%	1.51%	5.50%	7.01%
35.....	2.00%	2.00%	0.11%	0.07%	0.07%	0.07%	1.20%	5.50%	6.70%
40.....	2.00%	2.00%	0.16%	0.09%	0.10%	0.10%	0.70%	5.50%	6.20%
45.....	2.00%	2.00%	0.29%	0.14%	0.17%	0.17%	0.51%	5.50%	6.01%
50.....	2.00%	2.00%	0.53%	0.22%	0.31%	0.31%	0.00%	5.50%	5.50%
55.....	2.00%	2.00%	0.72%	0.29%	0.56%	0.56%	0.00%	5.50%	5.50%
60.....	2.00%	2.00%	0.91%	0.44%	1.19%	1.19%	0.00%	5.50%	5.50%
65.....	2.00%	2.00%	1.42%	0.77%	0.00%	0.00%	0.00%	5.50%	5.50%

Exhibit E

Percent of Members With Less Than Five Years of Service Withdrawing from Employment Next Year

Years of Service	State Division (Excluding Troopers)		Municipal Division		School Division	
	Men	Women	Men	Women	Men	Women
0.....	25.00%	30.00%	25.00%	30.00%	30.00%	30.00%
1.....	15.00%	18.00%	15.00%	18.00%	18.00%	18.00%
2.....	12.00%	15.00%	12.00%	16.00%	14.00%	14.00%
3.....	10.00%	12.00%	10.00%	14.00%	10.00%	10.00%
4.....	8.00%	10.00%	8.00%	12.00%	8.00%	8.00%

Single Life Retirement Values

Based on the Colorado Projected Experience Table-90 and 8.5 Percent Interest

Exhibit F — State, School, Municipal and Judicial Divisions

Sample Attained Ages	Present Value of \$1 Monthly for Life		Present Value of \$1 Monthly Increasing 3.5% Annually		Future Life Expectancy (Years)	
	Men	Women	Men	Women	Men	Women
40.....	\$135.42	\$139.95	\$201.41	\$213.90	38.28	44.06
45.....	131.16	137.24	190.45	205.30	33.65	39.29
50.....	126.03	133.62	178.20	195.00	29.24	34.60
55.....	120.02	128.77	164.72	182.69	25.07	30.00
60.....	111.92	122.03	148.63	167.74	20.97	25.45
65.....	101.06	113.36	129.61	150.51	16.97	21.10
70.....	88.59	102.46	109.72	131.08	13.38	16.98
75.....	75.32	89.13	90.17	109.72	10.28	13.16
80.....	61.96	74.32	71.89	88.04	7.72	9.81
85.....	49.58	57.95	56.01	66.21	5.71	6.90

Percent of Eligible Members Retiring Next Year

Exhibit G

Retirement Ages	State Division	State Troopers	School Division	Municipal Division	Judicial Division
50.....	8%	20%	9%	8%	—%
51.....	8%	20%	9%	8%	—%
52.....	8%	20%	9%	8%	—%
53.....	8%	25%	9%	8%	—%
54.....	8%	25%	9%	8%	—%
55.....	12%	25%	14%	12%	—%
56.....	12%	25%	14%	12%	—%
57.....	12%	25%	14%	12%	—%
58.....	12%	25%	14%	12%	—%
59.....	12%	25%	14%	12%	—%
60.....	16%	50%	18%	16%	15%
61.....	16%	60%	18%	16%	10%
62.....	16%	70%	18%	16%	10%
63.....	16%	80%	18%	16%	10%
64.....	16%	90%	18%	16%	10%
65.....	40%	100%	50%	40%	40%
66.....	40%	—%	40%	40%	20%
67.....	40%	—%	50%	40%	20%
68.....	40%	—%	60%	40%	20%
69.....	40%	—%	80%	40%	20%
70.....	100%	—%	100%	100%	40%
71.....	—%	—%	—%	—%	60%
72.....	—%	—%	—%	—%	100%

Schedule of Retirees and Survivors by Type of Benefit

As of December 31, 1993

Division	Number of Benefit Recipients	Type of Benefit					
		1	2	3	4	5	6
State	17,500	13,634	2,943	88	745	90	1,168
School.....	20,849	17,660	2,261	45	757	126	1,887
Municipal.....	2,005	1,357	477	9	147	15	152
Judicial.....	188	152	16	0	20	0	6
Total	40,542	32,803	5,697	142	1,669	231	3,213

Division	Option Selected				Surviving Cobeneficiary	Surviving Retiree
	1	2	3	4*		
State	8,343	2,061	3,695	460	1,548	470
School.....	12,146	2,482	3,330	357	1,091	515
Municipal.....	781	258	467	55	225	48
Judicial.....	31	18	57	12	41	9
Total	21,301	4,819	7,549	884	2,905	1,042

Benefit Types:

- 1 — Age and service retirement.
- 2 — Disability retirement.
- 3 — Survivor payment—Option 3.
- 4 — Survivor payment—children, spouse or dependent parent.
- 5 — Surviving spouse with deferred future benefit.
- 6 — Former member with deferred future benefit.

Option Selection: Age and service retirees and disability retirees select an Option at retirement. They are as follows:

- 1 — Single life benefit.
- 2 — Joint benefit with 1/2 to surviving cobeneficiary.
- 3 — Joint and survivor benefit.
- 4 — Joint benefit with 1/2 to either survivor:
Surviving cobeneficiary — retiree has predeceased the cobeneficiary.
Surviving retiree — cobeneficiary has predeceased the retiree.

*No longer offered to members retiring.

Schedule of Member Valuation Data

	Number of Members ¹	Annual Payroll	Average Annual Salary	% Increase in Average Pay
1984	94,766	\$2,091,707,220	\$22,072	5.20 %
1985	98,345	2,270,948,105	23,092	4.62 %
1986	99,977	2,409,384,090	24,099	4.36 %
1987	100,808	2,531,357,702	25,110	4.20 %
1988	103,064	2,642,686,201	25,641	2.10 %
1989	105,377	2,755,113,097	26,145	2.00 %
1990	106,898	2,912,712,448	27,248	4.22 %
1991	132,311	3,213,117,152	24,285	5.62 % ²
1992	136,898	3,436,693,500	25,104	3.37 %
1993	139,807	3,451,307,428	24,686	(1.67)%

¹ Total of 355 employers in 1993.

² After adjustment for inclusion of temporary, part-time, substitute and seasonal personnel after July 1, 1991.

Schedule of Retirees and Beneficiaries Added to and Removed from Benefit Payroll*

Year Ended	Added to Payroll		Removed from Payroll		Payroll—End of Year		Cost of Living Stabilization Fund	Average Annual Benefits	Increase In Average Benefits
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits			
12/31/84	2,247	\$23,813,326	717	\$3,009,065	25,052	\$146,704,999	\$45,747,060	\$7,682	9.8%
12/31/85	2,275	27,050,513	567	3,565,127	26,760	170,190,060	42,286,322	7,940	3.4%
12/31/86	2,293	28,173,779	857	4,386,095	28,196	193,978,656	44,138,479	8,445	6.4%
12/31/87	3,408	46,690,933	955	4,928,698	30,649	235,742,208	45,122,863	9,164	8.5%
12/31/88	2,269	27,914,867	852	3,661,680	32,066	266,034,336	44,537,477	9,685	5.7%
12/31/89	2,341	26,812,386	960	3,704,135	33,447	296,210,412	43,993,557	10,171	5.0%
12/31/90	2,472	30,727,020	979	4,241,455	34,940	330,668,124	47,742,599	10,830	6.5%
12/31/91	2,601	33,363,027	1,119	4,319,340	36,422	367,985,496	51,154,160	11,508	6.3%
12/31/92	2,996	44,840,160	1,230	7,905,996	38,188	424,857,912	56,918,725	12,616	9.6%
12/31/93	3,624	63,975,396	1,270	9,695,472	40,542	553,966,212	62,009,939	13,664	6.7%

*Numbers derived on an accrual basis.

Member-Retiree Comparison¹

The number of persons receiving monthly retirement benefits (including retirees and cobeneficiaries) has grown steadily in relation to membership. This trend will continue for many years into the future. The level-cost financing principle is designed so that contribution rates will not have to be raised to meet benefit

promises. The current percentages of salaries should be sufficient to meet the increasing retirement payroll if the benefit provisions contained in the state law are not changed. Retirement benefits include cost-of-living increases paid after 1970. Prior to 1981, figures are for years ended June 30.

Year	Number of Retiree Accounts on 12/31	Number of Member Accounts on 12/31 ²	Retiree Accounts as % of Members on 12/31	Total Benefits Paid - Year Ended 12/31
1940	93	3,715	2.5%	\$ 72,588
1945	171	5,585	3.1%	137,442
1950	280	11,853	2.4%	237,866
1955	747	21,185	3.5%	745,679
1960	1,775	33,068	5.4%	2,055,139
1965	3,631	49,701	7.3%	5,486,225
1970	6,308	65,586	9.6%	13,115,234
1975	11,650	84,781	13.7%	32,820,433
1980	17,301	96,473	17.9%	71,289,456
1985	24,842	101,409	24.5%	192,456,029
1986	26,217	104,460	25.1%	217,402,612
1987	28,657	107,116	26.8%	247,891,967
1988	30,025	110,295	27.2%	286,647,682
1989	31,466	111,652	28.2%	315,547,718
1990	32,955	115,350	27.4%	350,398,094
1991	34,481	146,818	23.5%	401,187,591
1992	36,186	162,980	22.2%	453,538,219
1993	38,500	174,685	22.0%	523,746,160

¹ Numbers derived on a cash basis.

² Includes inactive members.

Members in Valuation

By Attained Age and Years of Service — 12-31-93

State Division Members included in the State Division valuation totaled 50,707 and involved annual salaries totaling \$1,398,002,193. The average age for State Division members (excluding State Troopers) was 42.3 years, and the average service was 7.0 years. The average age for State Troopers was 40.9 years, and the average service was 12.6 years.

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30+	No.	Valuation Payroll
Under 20	677							677	\$ 2,151,276
20-24	1,872	10						1,882	18,389,448
25-29	3,298	383	14					3,695	66,905,058
30-34	3,882	1,357	390	17				5,646	128,503,766
35-39	5,038	1,889	1,098	431	12			8,468	207,201,132
40-44	4,217	2,080	1,412	1,116	335	4		9,164	270,012,674
45-49	3,147	1,708	1,268	1,203	917	202	9	8,454	276,966,676
50-54	1,881	1,091	846	769	813	566	169	6,135	213,727,120
55-59	1,028	622	533	528	459	364	171	3,705	127,758,545
60	133	69	94	91	67	53	24	531	18,320,175
61	129	80	62	70	51	44	25	461	15,076,905
62	103	79	61	80	39	23	16	401	12,583,563
63	98	61	49	59	36	24	15	342	10,608,594
64	76	48	67	55	40	27	11	324	10,578,124
65	72	20	32	33	23	11	7	198	5,335,863
66	54	22	13	19	12	13	8	141	3,919,225
67	47	15	12	8	8	8	4	102	2,476,335
68	39	10	11	12	12	3	5	92	2,439,872
69	30	7	8	9	7	7	2	70	1,528,473
70+	143	15	21	18	8	6	8	219	3,519,369
Totals	<u>25,964</u>	<u>9,566</u>	<u>5,991</u>	<u>4,518</u>	<u>2,839</u>	<u>1,355</u>	<u>474</u>	<u>50,707</u>	<u>\$ 1,398,002,193</u>

School Division Members included in the School Division valuation totaled 78,412 and involved annual salaries totaling \$1,790,555,170. The average age for School Division members was 42.5 years, and the average service was 7.3 years.

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30+	No.	Valuation Payroll
Under 20	824							824	\$ 2,600,926
20-24	2,183	3						2,186	20,011,208
25-29	5,135	351	8					5,494	89,075,963
30-34	5,451	2,203	391	8				8,053	147,175,966
35-39	7,608	2,378	1,988	451	9			12,434	229,093,746
40-44	7,416	2,878	2,135	2,421	609	1		15,460	365,244,254
45-49	5,190	2,979	2,212	2,005	2,297	353	2	15,038	426,138,793
50-54	2,620	1,611	1,566	1,430	1,432	1,150	191	10,000	302,981,296
55-59	1,511	773	904	976	636	456	239	5,495	147,077,181
60	221	107	118	136	79	36	20	717	16,318,136
61	204	82	78	77	45	28	18	532	10,845,969
62	148	71	57	78	33	23	11	421	8,664,049
63	151	48	51	61	35	17	16	379	7,500,966
64	129	56	58	48	32	7	10	340	6,146,904
65	112	31	23	28	10	7	7	218	2,976,992
66	107	19	17	21	10	6	2	182	2,393,606
67	91	15	24	8	6	8	3	155	1,862,851
68	65	11	17	5	4	2	4	108	1,232,274
69	53	10	13	10	7	1	1	95	1,132,365
70+	203	25	30	11	5	4	3	281	2,081,725
Totals	<u>39,422</u>	<u>13,651</u>	<u>9,690</u>	<u>7,774</u>	<u>5,249</u>	<u>2,099</u>	<u>527</u>	<u>78,412</u>	<u>\$ 1,790,555,170</u>

By Attained Age and Years of Service — 12-31-93

Municipal Division

Members included in the Municipal Division valuation totaled 10,436 and involved annual salaries totaling \$245,741,435. The average age for Municipal Division members was 38.3 years, and the average service was 5.5 years.

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30+	No.	Valuation Payroll
Under 20	656							656	\$ 1,628,411
20-24	873	1						874	7,243,996
25-29	796	90	3					889	16,466,455
30-34	1,064	323	111	11				1,509	34,038,904
35-39	934	438	279	73	4			1,728	47,025,015
40-44	830	370	252	165	91	1		1,709	50,021,943
45-49	507	254	214	169	133	37		1,314	40,331,562
50-54	284	141	149	116	81	62	13	846	25,451,809
55-59	175	62	93	64	49	40	15	498	14,163,035
60	29	7	16	11	15	4	4	86	2,317,786
61	20	5	7	8	4	3	2	49	1,327,257
62	11	7	10	6	7	1	3	45	1,467,027
63	12	4	8	6	4	2	1	37	915,120
64	19	8	3	2	6		1	39	833,300
65	11	5	3	2	1	1	1	24	503,566
66	15	6	5	3	1	1	1	32	594,952
67	13	3		2			1	19	226,426
68	7	1	2	2				12	168,028
69	7	2	3				1	13	163,884
70+	35	11	5	3	2		1	57	582,959
Totals	6,298	1,738	1,163	643	398	152	44	10,436	\$ 245,471,435

Judicial Division

Members included in the Judicial Division valuation totaled 252 and involved annual salaries totaling \$17,278,630. The average age for Judicial Division members was 51.2 years, and the average service was 10.6 years.

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30+	No.	Valuation Payroll
30-34	2	1						3	\$ 68,007
35-39	4	1						5	328,777
40-44	17	21	4	4				46	3,094,950
45-49	18	25	21	9	2			75	5,088,423
50-54	3	12	15	17	1			48	3,511,929
55-59	4	2	6	7	9	1		29	1,940,196
60	1	1		2				4	240,124
61		2		1	2			5	385,058
62		4	1		2			7	542,599
63			1	2				3	220,892
64			2	2				4	325,459
65			1	2	2			5	269,457
66		2		1				3	180,506
67	1		1					2	104,133
68				1	1			2	170,381
69		1	2		1	1		5	326,621
70+		1	1	2	2			6	481,118
Totals	50	73	55	50	22	2		252	\$ 17,278,630

Solvency Test

The PERA funding objective is to be able to pay long-term benefit promises through contributions that remain approximately level from year to year as a percent of salaries earned by members. In this way, members and employers in each year pay their fair share for retirement service accrued in that year by PERA members. Occasionally rates are increased, but only to add or improve benefit provisions.

If the retirement system follows level contribution rate financing principles, the system will pay all promised benefits when due — the ultimate test of financial soundness.

A short-term solvency test is one means of checking PERA's funding progress. In a short-term solvency test, the retirement plan's present assets (investments and cash) are compared with: 1) Member contributions on deposit, 2) the liabilities for future

benefits to persons who have retired and 3) the liabilities for service already rendered by active members. In a system that has been following the discipline of level contribution rate financing, the liabilities for member contributions on deposit (liability 1) and the liabilities for future benefits to present retirees (liability 2) will be fully covered by present assets, except in rare circumstances.

In addition, the liabilities for service already rendered by members (liability 3) will be partially covered by the remainder of present assets. Generally, if the system has been using level contribution rate financing, the funded portion of liability 3 will increase over time. It is unusual for liability 3 to be fully funded.

The schedule below illustrates the progress of funding liability 3 of PERA, and is indicative of PERA's policy to follow the discipline of level contribution rate funding.

Total Actuarial Liabilities

Valuation Date	Member Contributions (1)*	Retirees and Beneficiaries (2)	Employer-Financed Portion of Active Members (3)	Valuation Assets	Portion of Actuarial Accrued Liabilities Covered by Reported Assets		
					(1)	(2)	(3)
12/31/84.....	\$ 937,173,328	\$1,753,309,252	\$3,084,444,755	\$ 4,393,831,995	100%	100%	55.2%
12/31/85.....	1,042,574,126	2,020,932,989	3,405,202,669	5,194,918,164	100%	100%	62.6%
12/31/86.....	1,160,217,971	2,216,934,541	3,771,614,184	6,247,694,817	100%	100%	76.1%
12/31/87.....	1,259,278,057	2,734,034,675	4,213,269,209	7,019,254,128	100%	100%	71.8%
12/31/88.....	1,381,638,915	3,084,669,583	4,411,273,368	7,775,426,015	100%	100%	75.0%
12/31/89.....	1,500,592,533	3,455,861,901	4,723,623,212	8,722,658,715	100%	100%	79.7%
12/31/90.....	1,635,129,849	3,842,084,802	5,076,877,515	9,477,521,126	100%	100%	79.0%
12/31/91.....	1,834,998,407	4,272,349,404	5,414,471,940	10,508,670,579	100%	100%	81.3%
12/31/92.....	2,050,729,958	4,887,166,176	5,487,483,258	11,339,310,964	100%	100%	80.2%
12/31/93.....	2,093,693,307	6,516,956,622	6,186,381,981	12,668,101,503	100%	100%	66.5%

*Includes accrued interest on member contributions.

Summary of Unfunded Actuarial Accrued Liabilities

Unfunded actuarial accrued liabilities are the difference between actuarially calculated liabilities for service already rendered and the assets of the retirement fund. It is natural for unfunded liabilities to exist for PERA and other retirement plans.

The law governing PERA requires that these liabilities be financed systematically over future years. The period for amortizing unfunded actuarial accrued liabilities is currently under the 60-year limit specified in state law in all divisions of PERA. (The law requires that contribution rates be set at a level which, if actuarial experience matches plan assumptions, will pay off unfunded liabilities over 60 years or less.) The amortization periods have shown stability over the last decade.

Benefits to retirees are "fully funded," that is, assets reserved for benefits currently being paid equal liabilities for those benefits. Liabilities for members are based on service rendered toward their retirement benefits which will be payable in the future. Unfunded actuarial accrued liabilities exist because liabilities for such

service by members exceed assets currently on hand for such future benefits.

Because inflation continues, the value of dollars is decreasing. Looking at just the dollar amounts of assets, benefits paid, member salaries and unfunded actuarial accrued liabilities will be misleading.

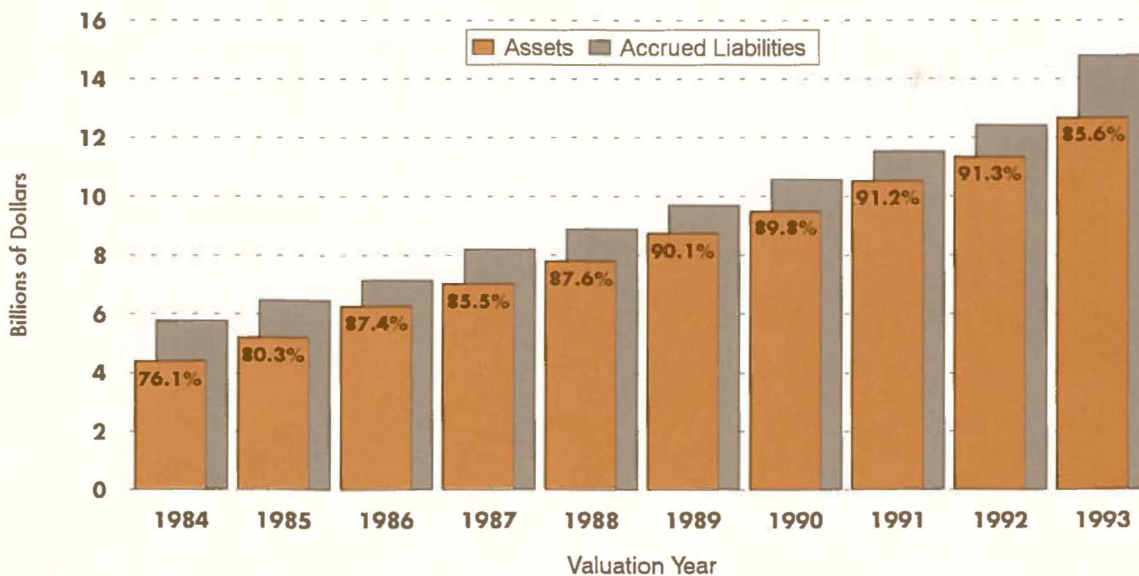
While no one or two measures can fully describe the financial condition of the plan, unfunded actuarial accrued liability dollars divided by member salary dollars provide a meaningful index. The smaller the ratio, the stronger the system. Observation of this relative index over a period of years will give an indication of the financial strength of the system. This ratio has increased at times over the last decade, but the recent trend shows stability.

Actuarial assumptions were revised in 1992 to recognize higher investment returns expected over the long term. Investment returns during the last several years have helped to increase assets, reduce unfunded actuarial accrued liabilities and lower the ratio of unfunded liabilities to member salaries.

Unfunded Actuarial Accrued Liabilities (UAAL)

Valuation Date	Total Actuarial Accrued Liabilities	Valuation Assets	Assets as a % of Accrued Liabilities	Unfunded Actuarial Accrued Liabilities	Member Salaries	UAAL as a % of Member Salaries
12/31/84.....	\$ 5,774,927,335	\$ 4,393,831,995	76.1%	\$ 1,381,095,340	\$ 2,091,707,220	66.0%
12/31/85.....	6,468,709,784	5,194,918,164	80.3%	1,273,791,620	2,270,948,105	56.1%
12/31/86.....	7,148,766,696	6,247,694,817	87.4%	901,071,879	2,409,384,090	37.4%
12/31/87.....	8,206,581,941	7,019,254,128	85.5%	1,187,327,813	2,531,357,702	46.9%
12/31/88.....	8,877,578,866	7,775,426,015	87.6%	1,102,145,851	2,642,664,024	41.7%
12/31/89.....	9,680,077,646	8,722,658,715	90.1%	957,418,931	2,755,113,097	34.8%
12/31/90.....	10,554,092,157	9,477,521,126	89.8%	1,076,571,031	2,912,712,448	37.0%
12/31/91.....	11,521,819,751	10,508,670,579	91.2%	1,013,149,172	3,213,117,152	31.5%
12/31/92.....	12,425,379,392	11,339,310,964	91.3%	1,086,068,428	3,436,693,500	31.6%
12/31/93.....	14,797,031,910	12,668,101,503	85.6%	2,128,930,407	3,451,307,428	61.7%

Assets as a Percent of Accrued Liabilities Graph 1984-1993



Schedule of Gains and Losses in Accrued Liabilities

Years Ended December 31

Resulting From Differences Between Assumed Experience and Actual Experience

\$ Gain (or Loss) for Year

(In Millions of Dollars)

Type of Activity	1993	1992	1991	1990	1989
Age and service retirements	\$ (116.5)	\$ (11.3)	\$ (5.0)	\$ (4.8)	\$ (6.5)
Disability retirements	(26.5)	(6.2)	(6.1)	(4.8)	(3.9)
Death-in-service benefits	1.3	2.9	4.9	(0.2)	4.2
Withdrawal from employment	(88.6)	(109.2)	(119.9)	(96.8)	(46.7)
New entrants ¹	(4.1)	—	—	—	—
Pay increases	287.4	149.3	71.3	63.1	66.7
Investment income	180.1	(76.4)	161.8	(53.6)	223.5
Other	(1.8)	(71.4)	(15.2)	0.7	(49.7)
Gain (or loss) during year from financial experience	231.3	(122.3)	91.8	(96.4)	187.6
Non-recurring items ²	(1,277.1)	71.7	(8.1)	(11.1)	(22.7)
Composite gain (or loss) during year	<u>\$(1,045.8)</u>	<u>\$ (50.6)</u>	<u>\$ 83.7</u>	<u>\$ (107.5)</u>	<u>\$ 164.9</u>

¹ The loss associated with new entrants was not calculated prior to 1993.

² Non-recurring items include changes due to law changes, amendments, changes in actuarial method or assumptions, and special transfers to retired life funds.

Schedule of Computed Employer Contribution Rates

Expressed as a Percentage of Member Payroll

	State Division	School Division	Municipal Division	Judicial Division
Contributions:				
Age and service retirements	8.81%	9.84%	8.29%	13.13%
Disability retirements	1.53%	1.32%	1.49%	0.93%
Survivor benefits	0.64%	0.49%	0.60%	1.49%
Future refunds	2.96%	2.45%	3.41%	1.45%
Total normal cost	<u>13.94%</u>	<u>14.10%</u>	<u>13.79%</u>	<u>17.00%</u>
Member contributions	8.06% ¹	8.00%	8.00%	8.00% ²
Employer normal cost	<u>5.88%</u>	<u>6.10%</u>	<u>5.79%</u>	<u>9.00%</u>
Percentage available to amortize unfunded actuarial accrued liabilities	4.95%	4.70%	3.41%	5.20%
Amortization period	<u>22 years</u>	<u>14 years</u>	<u>5 years</u>	<u>11 years</u>
Total employer contribution rate for actuarially funded benefits	10.83%	10.80%	9.20%	14.20%
Health care fund ³	<u>0.80%</u>	<u>0.80%</u>	<u>0.80%</u>	<u>0.80%</u>
Statutory employer contribution rate	<u>11.63%</u> ¹	<u>11.60%</u>	<u>10.00%</u>	<u>15.00%</u>

¹ Weighted average of more than one statutory rate.

² Assumes no judge will elect a refund of contributions made during the 17th and through the 20th year of service.

³ Used to pay a portion of health care premiums for benefit recipients.

Schedule of PERA's Contribution Rate History

State Division	Percent of Payroll		Percent of Payroll	
	Member Contribution Rate	Employer Contribution Rate	Member Contribution Rate	Employer Contribution Rate
Members (Other Than State Troopers)				
8-1-31 to 6-30-38	3.50%	0.00%	7-1-45 to 6-30-69	7.00%
7-1-38 to 6-30-49	3.50%	3.50%	7-1-69 to 6-30-70	8.00%
7-1-49 to 6-30-58	5.00%	5.00%	7-1-70 to 6-30-71	8.00%
7-1-58 to 6-30-69	6.00%	6.00%	7-1-71 to 6-30-73	8.00%
7-1-69 to 6-30-70	7.00%	7.00%	7-1-73 to 6-30-74	8.75%
7-1-70 to 6-30-71	7.00%	8.00%	7-1-74 to 6-30-75	8.75%
7-1-71 to 6-30-73	7.00%	8.50%	7-1-75 to 8-31-80	8.75%
7-1-73 to 6-30-74	7.75%	9.50%	9-1-80 to 12-31-81	8.75%
7-1-74 to 6-30-75	7.75%	10.50%	1-1-82 to 6-30-87	9.00%
7-1-75 to 8-31-80	7.75%	10.64%	7-1-87 to 6-30-88	9.00%
9-1-80 to 12-31-81	7.75%	12.20%	7-1-88 to 6-30-89	9.00%
1-1-82 to 6-30-87	8.00%	12.20%	7-1-89 to 4-30-92	12.30%
7-1-87 to 6-30-88	8.00%	10.20%	5-1-92 to 6-30-92	12.30%
7-1-88 to 6-30-91	8.00%	12.20%	7-1-92 to 6-30-93	11.50%
7-1-91 to 4-30-92	8.00%	11.60%	7-1-93 to 12-31-93	11.50%
5-1-92 to 6-30-92	8.00%	5.60%*		
7-1-92 to 6-30-93	8.00%	10.60%		
7-1-93 to 12-31-93	8.00%	11.60%		
School Division				
1-1-44 to 12-31-49	3.50%	3.50%		
1-1-50 to 6-30-58	5.00%	5.00%		
7-1-58 to 6-30-69	6.00%	6.00%		
7-1-69 to 12-31-69	7.00%	6.00%		
1-1-70 to 12-31-70	7.00%	7.50%		
1-1-71 to 12-31-71	7.00%	8.50%		
1-1-72 to 6-30-73	7.00%	9.25%		
7-1-73 to 12-31-73	7.75%	9.25%		
1-1-74 to 12-31-74	7.75%	10.25%		
1-1-75 to 12-31-75	7.75%	11.25%		
1-1-76 to 12-31-80	7.75%	12.10%		
1-1-81 to 12-31-81	7.75%	12.50%		
1-1-82 to 6-30-87	8.00%	12.50%		
7-1-87 to 6-30-88	8.00%	11.50%		
7-1-88 to 6-30-91	8.00%	12.50%		
7-1-91 to 6-30-92	8.00%	12.20%		
7-1-92 to 12-31-93	8.00%	11.60%		
Municipal Division				
1-1-44 to 12-31-49	3.50%	3.50%		
1-1-50 to 6-30-58	5.00%	5.00%		
7-1-58 to 6-30-69	6.00%	6.00%		
7-1-69 to 12-31-69	7.00%	6.00%		
1-1-70 to 12-31-70	7.00%	7.00%		
1-1-71 to 6-30-73	7.00%	7.50%		
7-1-73 to 12-31-73	7.75%	7.50%		
1-1-74 to 12-31-74	7.75%	8.50%		
1-1-75 to 12-31-75	7.75%	9.50%		
1-1-76 to 12-31-80	7.75%	9.86%		
1-1-81 to 12-31-81	7.75%	10.20%		
1-1-82 to 6-30-91	8.00%	10.20%		
7-1-91 to 12-31-93	8.00%	10.00%		
Judicial Division				
7-1-49 to 6-30-57	5.00%	5.00%		
7-1-57 to 6-30-73	6.00%	12.00%		
7-1-73 to 6-30-80	7.00%	12.00%		
7-1-80 to 8-30-80	7.00%	13.00%		
9-1-80 to 12-31-81	7.00%	15.00%		
1-1-82 to 6-30-87	8.00%	15.00%		
7-1-87 to 6-30-88	8.00%	13.00%		
7-1-88 to 12-31-93	8.00%	15.00%		

*Legislation created an annual reduction equal to 1% of salary retroactive to 7-1-91 to be taken during May and June of 1992.





Statistical

Section

Unaudited

Public Employees Retirement Association of Colorado

Schedule of Benefit Disbursements by Type*

(In Thousands of Dollars)

Year Ended	Retirement Benefits	Survivor Benefits	Contribution Refunds	Interest Paid	Health Care	Total
12/31/84.....	\$ 171,980	\$ 6,385	\$ 34,519	\$ —	\$ —	\$ 212,884
12/31/85.....	193,936	7,485	32,069	—	—	233,490
12/31/86.....	217,403	8,818	28,237	—	5,031	259,489
12/31/87.....	247,963	9,431	27,704	—	16,841	301,939
12/31/88.....	286,261	9,924	29,655	—	21,282	347,122
12/31/89.....	315,206	10,675	38,406	—	19,308	383,595
12/31/90.....	349,931	11,363	32,621	—	29,948	423,863
12/31/91.....	388,526	12,118	28,379	—	35,540	464,563
12/31/92.....	440,327	13,211	31,356	1,318	40,904	527,116
12/31/93.....	509,629	14,116	25,086	1,665	44,538	595,034

*Numbers are derived on accrual basis.

Member and Benefit Recipient Statistics*

	State Division	School Division	Municipal Division	Judicial Division	Total
Active members - 12/31/93	<u>50,707</u>	<u>78,412</u>	<u>10,436</u>	<u>252</u>	<u>139,807</u>
Retirements during 1993:					
Disability retirements.....	205	188	46	0	439
Service retirements.....	<u>1,056</u>	<u>1,578</u>	<u>98</u>	<u>6</u>	<u>2,738</u>
Total	<u>1,216</u>	<u>1,766</u>	<u>144</u>	<u>6</u>	<u>3,177</u>
Retirement benefits:					
Total receiving retirement benefits on Dec. 31, 1992.....	15,686	18,473	1,714	163	36,036
Total retiring during 1993.....	<u>1,261</u>	<u>1,766</u>	<u>144</u>	<u>6</u>	<u>3,177</u>
Cobeneficiaries continuing after retiree's death.....	144	121	20	6	291
Returning to retirement rolls from suspension.....	<u>12</u>	<u>8</u>	<u>0</u>	<u>0</u>	<u>20</u>
Total	<u>17,103</u>	<u>20,368</u>	<u>1,878</u>	<u>175</u>	<u>39,524</u>
Retirees deceased during year.....	541	467	48	7	1,063
Retirees returning to work.....	<u>13</u>	<u>11</u>	<u>0</u>	<u>0</u>	<u>24</u>
Total receiving retirement benefits- 12/31/93	<u>16,549</u>	<u>19,890</u>	<u>1,830</u>	<u>168</u>	<u>38,437</u>
Total retirement benefits payable on 12/31/93....	\$ 236,844,300	\$ 272,583,108	\$ 21,369,504	\$ 3,318,756	\$ 534,115,668
Average monthly benefit on 12/31/93.....	\$ 1,193	\$ 1,142	\$ 973	\$ 1,646	\$ 1,158
Average monthly benefit for members retired during 1993.....	\$ 1,684	\$ 1,512	\$ 1,194	\$ 2,727	\$ 1,568
Survivor benefit accounts:					
Total benefits being paid on 12/31/93.....	787	739	145	19	1,690
Total benefits payable on 12/31/93.....	\$ 8,640,924	\$ 6,672,588	\$ 1,163,952	\$ 291,240	\$ 16,768,704
Deferred benefits:					
Deferred retirements to age 60 or 65.....	1,168	1,887	152	6	3,213
Total annual future benefits	\$ 14,058,933	\$ 16,058,640	\$ 1,448,797	\$ 70,599	\$ 31,636,969
Future survivor beneficiaries.....	55	57	10	0	122
Total annual future benefits	\$ 291,830	\$ 207,224	\$ 53,214	\$ 0	\$ 552,268

* Numbers were changed from a cash/calendar year basis to an actuarially derived basis in 1992, and include the Cost of Living Stabilization Fund.

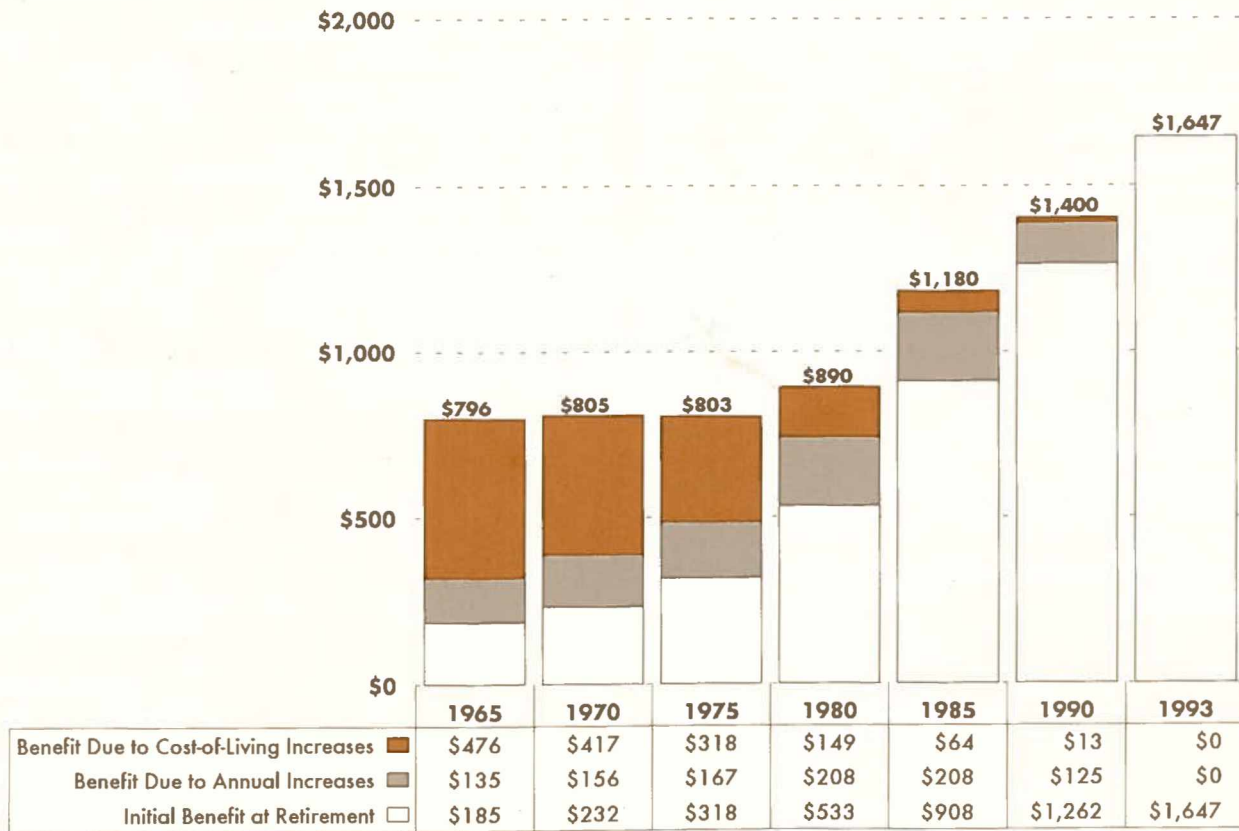
Schedule of Average Retirement Benefits Payable*

Year Ended	Average Monthly Benefit	Average Age at Retirement	Average Current Age of Retirees	Average Years of Service at Retirement
12/31/84.....	\$ 648	62.1	70.0	17.2
12/31/85.....	676	61.8	70.1	17.4
12/31/86.....	727	61.6	70.1	17.5
12/31/87.....	778	61.4	69.7	17.8
12/31/88.....	828	61.7	69.8	18.0
12/31/89.....	864	61.1	70.0	18.2
12/31/90.....	935	60.9	70.0	18.3
12/31/91.....	980	60.7	70.1	18.5
12/31/92.....	1,085	60.5	70.0	18.7
12/31/93.....	1,158	60.2	69.7	19.1

*Includes disability retirements, but not survivor benefits.

Average Monthly Benefit by Year of Retirement Graph

Service Retiree Accounts as of December 31, 1993





Schedule of Affiliated Employers

State Division

Agencies and Instrumentalities¹

Colorado Association of School Boards
Colorado Compensation Insurance Authority
Colorado Council on Arts and Humanities
Colorado High School Activities Association
Colorado Fair Authority
Colorado State Student Loan Program
Colorado Uninsurable Health Insurance Plan
Colorado Water Resources and
Power Development Authority
Department of Administration
Department of Agriculture
Department of Corrections
Department of Education
Department of Health
Department of Institutions
Department of Labor and Employment
Department of Law
Department of Local Affairs
Department of Military Affairs
Department of Natural Resources
Department of Personnel
Department of Public Safety
Department of Regulatory Agencies
Department of Revenue
Department of Social Services
Department of State
Department of Transportation
Department of the Treasury
Fire and Police Pension Association
General Assembly
Joint Budget Committee
Judicial Department
Legislative Council
Moffat Tunnel Commission³
Office of the District Attorneys
Office of the Governor
Office of Legislative Legal Services
Office of the Lieutenant Governor
Public Employees' Retirement Association
Special District Association of Colorado
State Auditor's Office
State Board of the Great Outdoors Colorado Trust Fund^{2,3}
State Historical Society

Institutions of Higher Education

Adams State College
Aims Community College
Arapahoe Community College
Auraria Higher Education Center
Aurora Community College
Colorado Advanced Technology Institute
Colorado Mountain College
Colorado Northwestern Community College
Colorado School of Mines
Colorado State University
Commission on Higher Education
Denver Community College
Fort Lewis College
Front Range Community College
Lamar Community College
Mesa State College
Metropolitan State College at Denver
Morgan Community College
Northeastern Junior College
Otero Junior College
Pikes Peak Community College
Pueblo Vocational Community College
Red Rocks Community College
School for the Deaf & Blind
State Board for Community Colleges and
Occupational Education
The State Colleges in Colorado
Trinidad State Junior College
University of Colorado at Boulder
University of Colorado at Colorado Springs
University of Colorado at Denver
University of Colorado Health Sciences Center
University of Northern Colorado
University of Southern Colorado
Western State College

¹ Some agencies listed in the 1992 Comprehensive Annual Financial Report were deleted from this listing since they are part of a major department in state government.

² Created in 1993.

³ Inactive affiliate.

School Division

Adams County

Adams County School District 14
 Bennett School District 29J
 Brighton School District 27J
 Mapleton School District 1
 Northglenn-Thornton School District 12
 Strasburg School District 31J
 Westminster School District 50

Alamosa County

Alamosa County School District Re-11J
 Sangre de Cristo School District Re-22J

Arapahoe County

Adams-Arapahoe School District 28J
 Byers School District 32J
 Cherry Creek School District 5
 Deer Trail School District 26J
 Englewood School District 1
 Littleton School District 6
 Sheridan School District 2

Archuleta County

Archuleta County School District 50 Jt

Baca County

Campo School District RE-6
 Pritchett School District RE-3
 Springfield School District RE-4
 Vilas School District RE-5
 Walsh School District RE-1

Bent County

Las Animas School District RE-1
 McClave School District RE-2

Boulder County

Boulder Valley School District RE2
 St. Vrain Valley School District RE1J

Chaffee County

Buena Vista School District R-31
 Salida School District R-32(J)

Cheyenne County

Cheyenne County School District Re-5
 Kit Carson School District R-1

Clear Creek County

Clear Creek School District RE-1

Conejos County

North Conejos School District RE1J
 Sanford School District 6J
 South Conejos School District RE 10

Costilla County

Centennial School District R-1
 Sierra Grande School District R-30

Crowley County

Crowley County School District RE-1

Custer County

Custer County Consolidated School District C-1

Delta County

Delta County School District 50(J)

Dolores County

Dolores County School District Re No. 2

Douglas County

Douglas County School District Re 1

Eagle County

Eagle County School District Re 50

Elbert County

Agate School District 300
 Big Sandy School District 100J
 Elbert School District 200
 Elizabeth School District C-1
 Kiowa School District C-2

El Paso County

Academy School District #20
 Calhan School District RJ1
 Cheyenne Mountain School District 12
 Colorado Springs School District 11
 Edison School District 54 Jt
 Ellicott School District 22
 Falcon School District 49
 Fountain School District 8
 Hanover School District 28
 Harrison School District 2
 Lewis-Palmer School District 38
 Manitou Springs School District 14
 Miami/Yoder School District 60 Jt
 Peyton School District 23 Jt
 Widefield School District 3

Fremont County

Canon City School District Re-1
 Cotopaxi School District Re-3
 Florence School District Re-2

Garfield County

Garfield School District Re-2
 Garfield School District 16
 Roaring Fork School District Re-1

Gilpin County

Gilpin County School District Re-1

Grand County

East Grand School District 2
 West Grand School District 1

Gunnison County

Gunnison Watershed School District Re1J

Hinsdale County

Hinsdale County School District Re-1

Huerfano County

Huerfano School District Re-1
La Veta School District Re-2

Jackson County

North Park School District R-1

Jefferson County

Jefferson County School District R-1

Kiowa County

Eads School District Re-1
Plainview School District Re-2

Kit Carson County

Arriba-Flagler Consolidated School District No. 20
Bethune School District R-5
Burlington School District Re-6J
Hi-Plains School District R-23
Stratton School District R-4

Lake County

Lake County School District R-1

La Plata County

Bayfield School District 10Jt-R
Durango School District 9-R
Ignacio School District 11 Jt

Larimer County

Park School District R-3
Poudre School District R-1
Thompson School District R-2J

Las Animas County

Aguilar Reorganized School District 6
Branson Reorganized School District 82
Hoehne Reorganized School District 3
Kim Reorganized School District 88
Primero Reorganized School District 2
Trinidad School District 1

Lincoln County

Genoa/Hugo School District C-113
Karval School District Re 23
Limon School District Re 4J

Logan County

Buffalo School District Re-4
Frenchman School District Re-3
Plateau School District Re-5
Valley School District Re-1

Mesa County

De Beque School District 49 Jt
Mesa County Valley School District 51
Plateau Valley School District 50

Mineral County

Creede Consolidated School District 1

Moffat County

Moffat County School District Re No. 1

Montezuma County

Dolores School District RE 4A
Mancos School District Re-6
Montezuma-Cortez School District Re 1

Montrose County

Montrose County School District Re-1J
West End School District Re-2

Morgan County

Brush School District Re-2 (J)
Fort Morgan School District Re-3
Weldon Valley School District Re-20 (J)
Wiggins School District Re-50 (J)

Otero County

Cheraw School District 31
East Otero School District R1
Fowler School District R4J
Manzanola School District 3J
Rocky Ford School District R2
Swink School District 33

Ouray County

Ouray School District R-1
Ridgway School District R-2

Park County

Park County School District Re-2
Platte Canyon School District 1

Phillips County

Haxtun School District Re-2J
Holyoke School District Re-1J

Pitkin County

Aspen School District 1

Prowers County

Granada School District Re-1
Holly School District Re-3
Lamar School District Re-2
Wiley School District Re-13 Jt

Pueblo County

Pueblo City School District 60
Pueblo County School District 70

Rio Blanco County

Meeker School District RE1
Rangely School District RE4

Rio Grande County

Del Norte School District C-7
 Monte Vista School District C-8
 Sargent School District Re-33J

Routt County

Hayden School District Re 1
 South Routt School District Re 3
 Steamboat Springs School District Re 2

Saguache County

Center Consolidated School District 26 Jt
 Moffat School District 2
 Mountain Valley School District Re 1

San Juan County

Silverton School District 1

San Miguel County

Norwood School District R-2J
 Telluride School District R-1

Sedgwick County

Julesburg School District Re 1
 Platte Valley School District Re3

Summit County

Summit School District Re 1

Teller County

Cripple Creek-Victor School District Re-1
 Woodland Park School District RE-2

Washington County

Akron School District R-1
 Arickaree School District R-2
 Lone Star School District 101
 Otis School District R-3
 Woodlin School District R-104

Weld County

Ault-Highland School District Re-9
 Briggsdale School District Re-10
 Eaton School District Re-2
 Fort Lupton School District Re-8
 Gilcrest School District Re-1
 Greeley School District 6
 Johnstown School District Re-5J
 Keenesburg School District Re-3
 Pawnee School District Re-12
 Platte Valley School District Re-7
 Prairie School District Re-11
 Windsor School District Re-4

Yuma County

East Yuma County School District R-J-2
 West Yuma County School District R-J-1

Boards of Cooperative Educational Services (BOCES)

Adams County BOCES (dissolved 6-30-93)
 East Central BOCES

Expeditionary Learning School BOCES¹
 Mountain BOCES
 Northeast BOCES
 Northern Colorado BOCES
 Northwest Colorado BOCES
 Pikes Peak BOCES
 Rio Blanco BOCES
 South Central BOCES
 South Platte Valley BOCES
 Southeastern BOCES
 Weld BOCES

Boards of Cooperative Services (BOCS)

Arkansas Valley BOCS
 San Juan BOCS
 San Luis Valley BOCS
 Southwest BOCS

Vocational Schools

Delta-Montrose Area Vocational School
 San Juan Basin Area Vocational School

Municipal Division

Alamosa Housing Authority
 Aurora Housing Authority
 Baca Grande Water & Sanitation District¹
 Beulah Water Works District
 Black Hawk-Central City Sanitation District
 Blanca-Fort Garland Metropolitan District
 Boxelder Sanitation District
 Brush Housing Authority
 Carbon Valley Park & Recreation District
 Castle Pines Metropolitan District
 Centennial Soil Conservation District
 Center Housing Authority
 City of Alamosa
 City of Boulder
 City of Colorado Springs
 City of Fort Morgan
 City of Lafayette²
 City of Manitou Springs
 City of Pueblo
 City of Wray
 City of Yuma
 Colorado Housing Finance Authority
 Colorado Springs Public Utilities
 Columbine Knolls-Grove Metropolitan Recreation District
 Costilla Housing Authority
 Cunningham Fire Protection District
 Douglas Public Library District
 East Cheyenne Ground Water Management District
 East Larimer County Water District
 Eastern Rio Blanco Parks & Recreation Department
 Eaton Housing Authority
 Estes Valley Public Library District
 Fairmont Fire Protection District³
 Forest Lakes Metropolitan District
 Fremont Sanitation District
 Fremont Soil Conservation District
 Garfield County Housing Authority
 Housing Authority of Arriba

Housing Authority of the County of Saguache
 Housing Authority of the Town of Limon
 Lamar Housing Authority
 Lamar Utilities Board
 Left Hand Water District
 Longmont Housing Authority
 Louisville Fire Protection District
 Meeker Regional Library District
 Memorial Hospital – Colorado Springs
 Montrose Recreation District
 Morgan Soil Conservation District
 Mountain View Fire Protection District
 Mountain Village Metropolitan District
 Mountain Water and Sanitation District
 Niwot Sanitation District¹
 North Chaffee County Regional Library
 Northeast Colorado Health Department
 Pine Drive Water District
 Pueblo City-County Health Department
 Pueblo Library District
 Rampart Regional Library District
 Rangely Regional Library District¹
 Red, White & Blue Fire Protection District
 Rio Blanco Fire Protection District
 Rio Blanco Water Conservancy District
 Routt County Soil Conservation District²
 Sable-Altura Fire Protection District
 San Miguel County Public Library
 Sheridan Sanitation District #1
 Southwest Regional Library
 Steamboat II Water and Sanitation District
 Steamboat Springs Rural Fire Protection District
 Town of Bayfield
 Town of Crawford
 Town of Dinosaur
 Town of Eckley
 Town of Estes Park
 Town of Firestone
 Town of Lake City
 Town of Platteville
 Town of Siebert
 Town of Silver Plume
 Tri-County Health Department
 Washington-Yuma Counties Combined Communications Center
 Weld County Health Department
 West Greeley Soil Conservation District
 Western Rio Blanco Metropolitan Recreation & Park District
 Windsor-Severance Library District
 Yuma Housing Authority

Judicial Division

1st-23rd District Court
 24th District-Denver Probate Court
 25th District-Denver Juvenile Court
 Adams County Court
 Alamosa County Court
 Arapahoe County Court
 Archuleta County Court
 Baca County Court
 Bent County Court
 Boulder County Court

Chaffee County Court
 Cheyenne County Court
 Clear Creek County Court
 Conejos County Court
 Costilla County Court
 Court of Appeals
 Crowley County Court
 Custer County Court
 Delta County Court
 Denver County Court
 Dolores County Court
 Douglas County Court
 Eagle County Court
 El Paso County Court
 Elbert County Court
 Fremont County Court
 Garfield County Court
 Gilpin County Court
 Grand County Court
 Gunnison County Court
 Hinsdale County Court
 Huerfano County Court
 Jackson County Court
 Jefferson County Court
 Kiowa County Court
 Kit Carson County Court
 La Plata County Court
 Lake County Court
 Larimer County Court
 Las Animas County Court
 Lincoln County Court
 Logan County Court
 Mesa County Court
 Mineral County Court
 Moffat County Court
 Montezuma County Court
 Montrose County Court
 Morgan County Court
 Otero County Court
 Ouray County Court
 Park County Court
 Phillips County Court
 Pitkin County Court
 Prowers County Court
 Pueblo County Court
 Rio Blanco County Court
 Rio Grande County Court
 Routt County Court
 Saguache County Court
 San Juan County Court
 San Miguel County Court
 Sedgwick County Court
 Summit County Court
 Supreme Court
 Teller County Court
 Washington County Court
 Weld County Court
 Yuma County Court

¹ Affiliated in January 1994.
² Disaffiliated in February 1993.
³ Inactive affiliate.



Other
Programs
Section

Unaudited



Public Employees Retirement Association of Colorado

Health Care Program

The PERA Health Care Program began covering enrolled benefit recipients and qualified dependents on July 1, 1986. This benefit was developed after legislation in 1985 established the Program and the Health Care Fund.

The Health Care Fund receives employer contributions equal to 0.8 percent of member salaries from affiliated employers. This allocation is invested, and any earnings are added to the Fund.

Under the Program, PERA subsidizes a portion of the monthly premium for health care coverage. The benefit recipient pays any remaining part of that premium through an automatic deduction from the monthly retirement benefit. In 1993, the maximum subsidy was \$115 per month for benefit recipients whose retirement benefits were based on 20 years or more of PERA

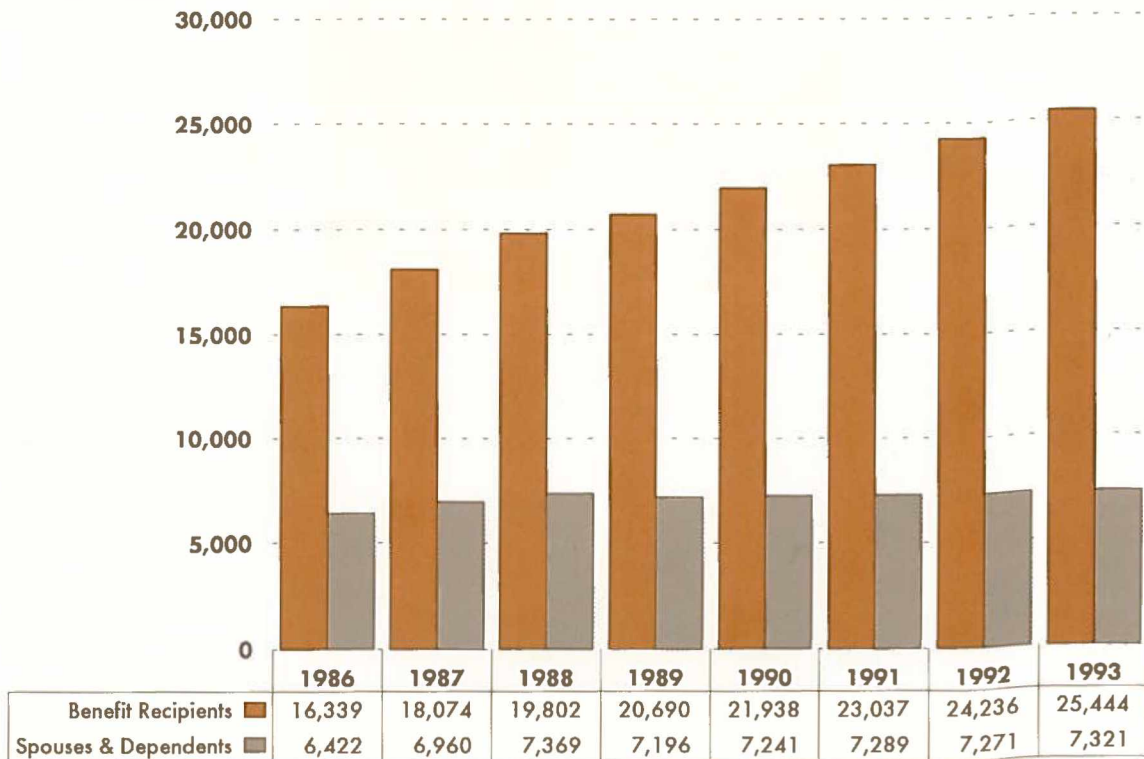
service credit. For those with less service, the subsidy was reduced by 5 percent (\$5.75) for each year under 20 years.

Monthly premium costs for participants depend on the health care plan selected, the total premium, the PERA subsidy amount, the Medicare eligibility, and the number of persons being covered.

During 1993, PERA contracted with a major medical indemnity carrier to administer claims for three self-insured programs, and with seven Health Maintenance Organizations providing services within Colorado.

The annual open enrollment for the Health Care Program was held between May 1 and June 30, 1993. During that period, PERA benefit recipients could join the Program for the first time, transfer from one carrier to another, or add or delete eligible dependents.

Health Care Enrollments Graph



Life Insurance Program

PERA provides its members with access to two group, decreasing-term life insurance plans — Rocky Mountain Life and Prudential, a plan offered by the National Conference on Public Employee Retirement Systems. In 1988, the Board voted to transfer the plan underwritten by the New York Life Insurance Company to Rocky Mountain Life. Members may join one or both of the plans, and may continue coverage into retirement. During the annual open enrollment period, members enrolling are not required to

furnish evidence of good health for themselves or their dependents. Members may enroll outside the enrollment period, but must provide a health statement from a physician. Monthly premiums are paid by payroll deduction; the premiums are \$9 for Prudential and \$10 for Rocky Mountain Life.

PERA also administers a special Rocky Mountain Life plan for retired State employees. This group is closed with no provision for new participants.

Life Insurance Enrollment

Year	New York Life/ Rocky Mountain Life	Prudential	Rocky Mountain Life (Closed Group)	Total Enrollments
1984	19,643	12,837	—	32,480
1985	21,296	13,635	—	34,931
1986	23,052	13,863	5,030	41,945
1987	24,394	14,113	4,800	43,307
1988	25,157	14,152	4,600	43,909
1989	33,241	14,306	4,462	52,009
1990	34,245	15,129	4,208	53,582
1991	36,191	16,332	3,602	56,125
1992	37,028	16,809	3,451	57,288
1993	36,857	16,899	3,051	56,807

Life Insurance Dollars Paid

Year	New York Life/ Rocky Mountain Life	Number of Payments*	Prudential	Number of Payments*	Rocky Mountain Life (Closed Group)	Number of Payments*	Total Paid	Total Payments*
1984	\$1,484,583	—	\$ 872,860	—	—	—	\$2,357,443	—
1985	1,950,696	—	910,057	—	—	—	2,860,753	—
1986	1,670,531	—	802,016	—	\$119,000	—	2,591,547	—
1987	2,097,665	—	865,783	—	212,000	—	3,175,448	—
1988	1,121,670	—	711,309	—	297,000	—	2,129,979	—
1989	3,548,164	—	1,080,144	—	209,504	—	4,837,812	—
1990	4,766,110	—	951,121	—	302,809	—	6,020,040	—
1991	5,383,194	808	1,276,347	188	361,256	180	7,020,797	1,176
1992	4,715,336	787	1,264,979	187	277,618	177	6,257,933	1,151
1993	5,114,319	751	1,250,563	169	236,675	155	6,601,557	1,075

*Number of payments not available before 1991.

401(k) Voluntary Investment Program

The PERA Voluntary Investment Program (VIP) was established on July 1, 1985, under Section 401(k) of the Internal Revenue Code. Program participation is voluntary, and contributions are entirely separate from those that members make to PERA each month.

During 1993, VIP allowed participants to defer income taxes by investing some of their current income for retirement. Earnings on VIP investments are also tax-deferred.

During 1993, members were able to invest up to 18 percent of their annual gross salary, to a maximum of \$8,994 in the Program. Contributions are deducted from the participant's monthly salary.

VIP offers members a choice of three funds in which they may invest. They are a Short-Term Fund, a Fixed Income (bond) Fund and a Growth Stock Fund. Each quarter, members may change their contribution amount, transfer their account balance between funds and change the contribution percentage designated to each fund.

The Program also has loan and hardship withdrawal provisions.

On December 31, 1993, VIP had accumulated assets of \$60,945,616 and 6,019 accounts.

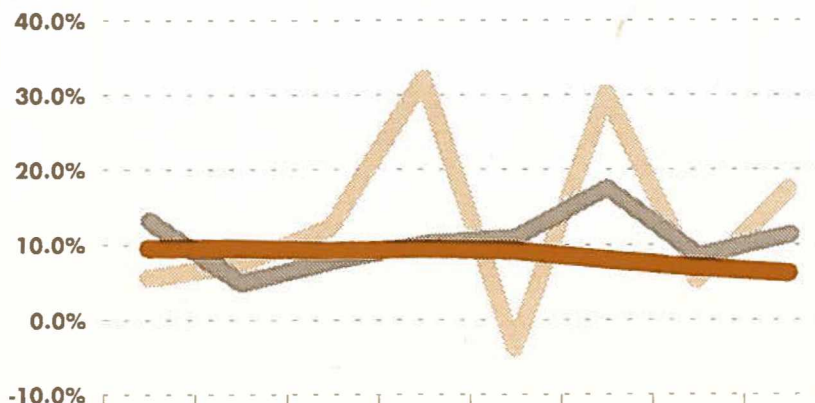
Year	Assets	Number of Accounts
1985 (July-Dec.)	\$ 203,272	236
1986	1,750,673	902
1987	4,292,351	1,322
1988	7,975,075	1,596
1989	13,359,939	2,103
1990	19,242,631	2,594
1991	30,017,532	3,094
1992	42,368,786	4,545
1993	60,945,616	6,019

1993 401(k) Fund Performance

Fund	Jan-Mar 1993	Apr-Jun 1993	July-Sept 1993	Oct-Dec 1993	Calendar Year 1993	Since Inception (7-1-85)
Short Term Fund.....	1.5%	1.5%	1.5%	1.5%	6.0%	98.0%
Fixed Income Fund.....	5.2%	2.6%	2.5%	0.7%	11.4%	167.9%
Growth Stock Fund.....	6.0%	3.7%	6.7%	0.1%	17.4%	198.0%

Note: The "time weighted" or actual return a participant may have realized may be less or more, depending on when the member began investing in a particular fund and/or the amount of investments the member had in a respective fund during each calendar quarter. A "time-weighted" rate of return measures each quarter's earnings based on \$1 invested in each fund for the period specified. The rate of return is quoted prior to the administrative charge.

401(k) Rates of Return Since Inception



	1986	1987	1988	1989	1990	1991	1992	1993
Short-Term Fund	9.4%	9.4%	9.0%	9.3%	9.0%	7.8%	6.8%	6.0%
Fixed Income Fund	13.2%	4.9%	7.9%	10.1%	11.0%	17.5%	8.5%	11.4%
Growth Stock Fund	5.4%	7.2%	12.3%	32.0%	-4.0%	30.0%	5.1%	17.4%

