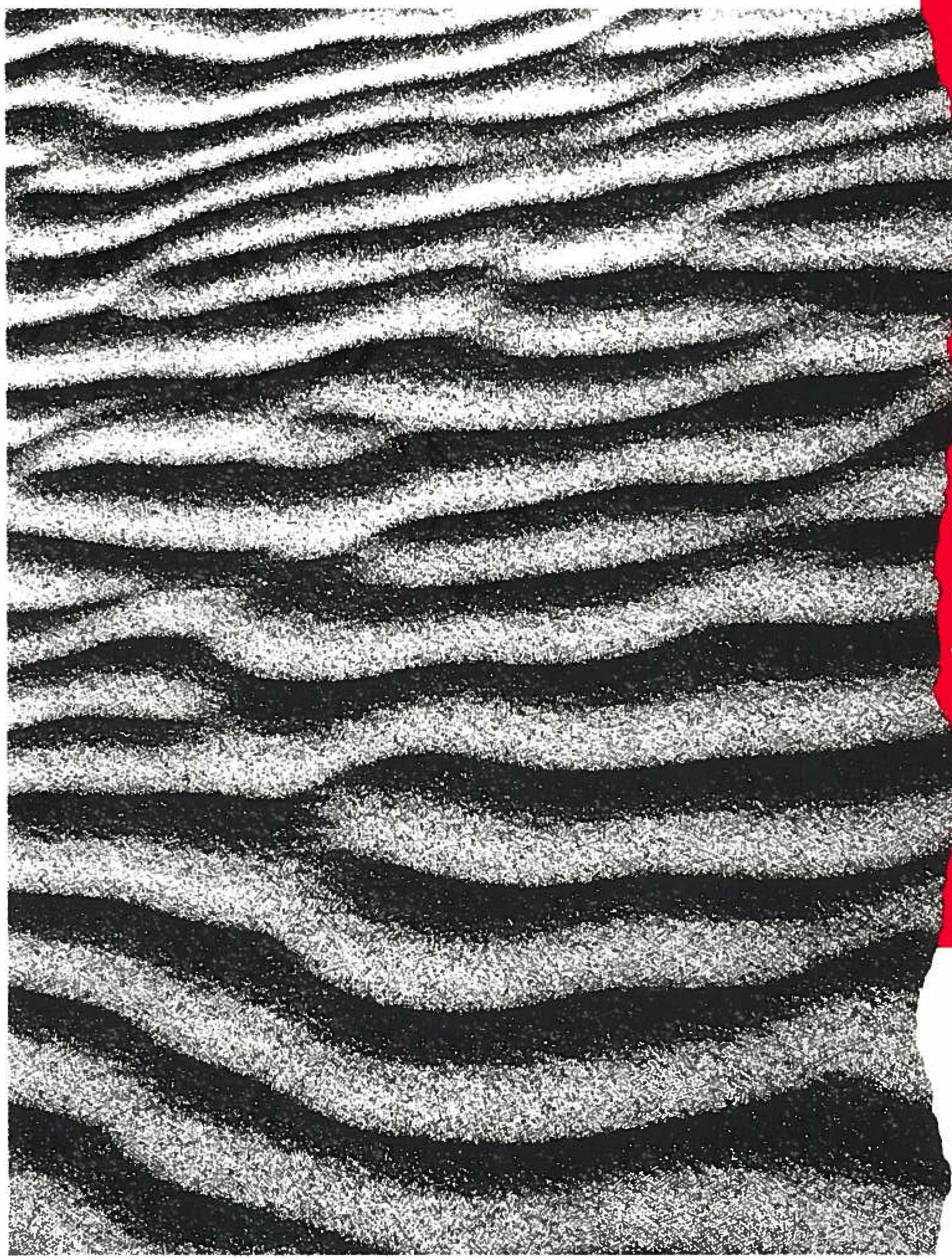


"...the great thing in this world is not so much where we stand, as in what direction we are moving..."

PERA

Public Employees' Retirement Association of Colorado

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

Just as the needle of a compass always points north, so do PERA's Board of Trustees and staff always direct their actions toward the security and integrity of the pension fund. We are ever mindful of our responsibility to those who rely on PERA for their financial well-being.

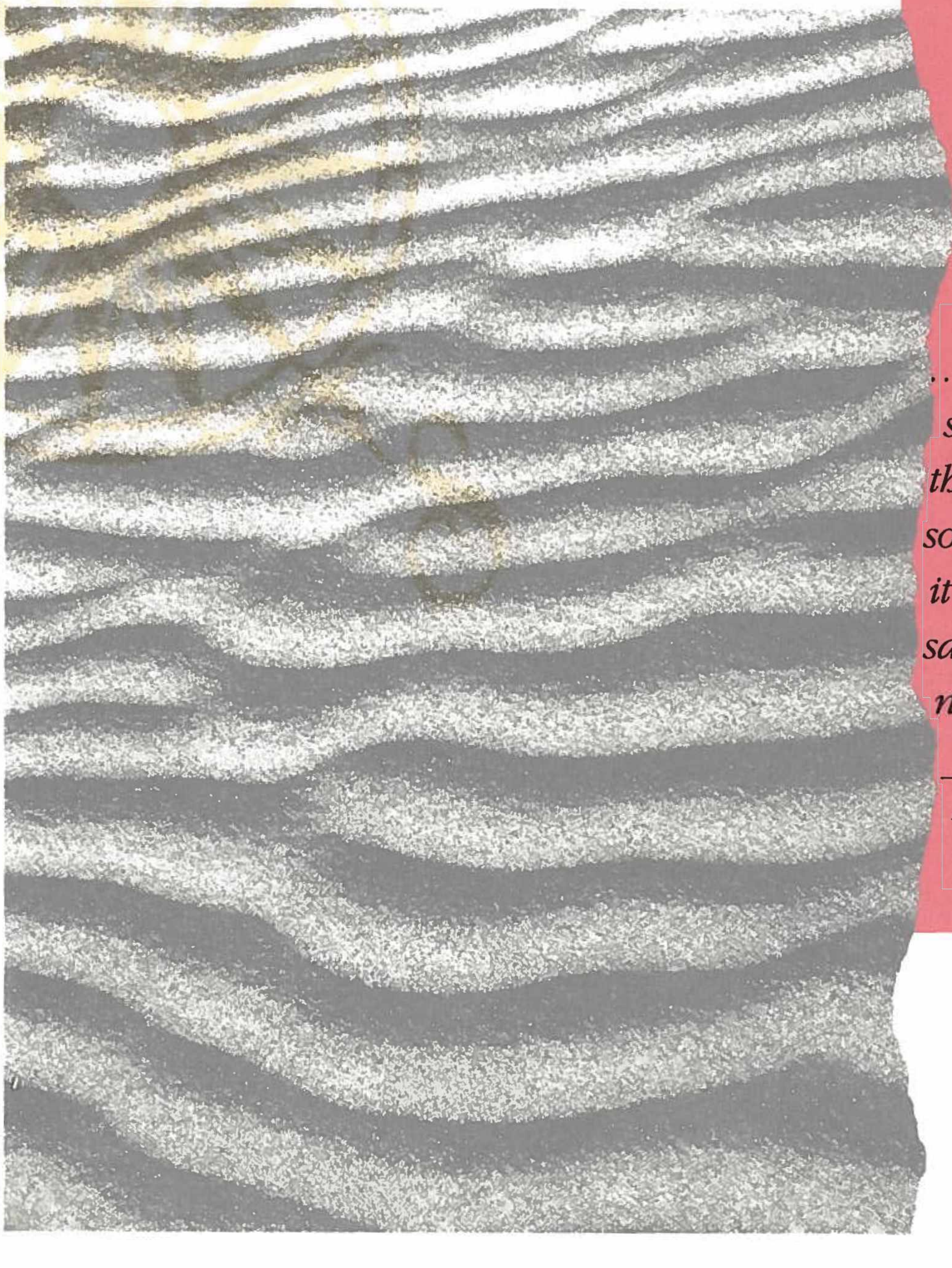
This Comprehensive Annual Financial Report shows what PERA has achieved during 1992. We take pride in what we've accomplished and look forward to meeting the challenges of the future.

The Public Employees' Retirement Association provides retirement and survivor benefits for the employees of 365 state, school and local government entities in Colorado.

Statistical Highlights as of December 31, 1992

❑ Benefit Recipients		38,188
❑ Contributing Members		136,898
❑ Service Retirements		2,098
❑ Disability Retirements		471
❑ Member Deaths		79
❑ Benefit Recipient Deaths		1,051
❑ Benefits Paid*	$	480,033,000
❑ Refunds Paid	$	32,674,000
❑ Employer Contributions	$	360,179,000
❑ Member Contributions	$	259,687,000
❑ Investment Assets	$	12,222,147,000
❑ Realized Investment Income	$	803,045,000
❑ 1992 Investment Rate of Return		6.4%
❑ Five-Year Average Annual Rate of Return		11.1%
❑ Ten-Year Average Annual Rate of Return		11.5%

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



"...we must sail sometimes with the wind and sometimes against it – but we must sail, and not drift, nor lie at anchor."

– Oliver Wendell Holmes
American physician and
author, 1809-1894

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

Table of Contents

"During the course of its history, PERA has been successful in keeping the fund sound and growing. 1992 was a year of challenge. We rose to meet the challenge and maintain our success. We must be prepared to do so in the future, with new and different challenges."

– Robert J. Scott,
PERA Executive Director

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 Toll-Free 1-800-759-PERA (7372)

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, 1992. We are proud of the achievements that were accomplished during the year outlined on page 6, and we will always continue to improve service to our members and benefit recipients.

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 365 affiliated employers.
- **The Other PERA 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., 23 years for the State Division, 11 years for the School Division, and 9 years for the Judicial Division. The Municipal Division does not have an amortization period.

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, 1991. 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 1992, totaled $1,315,161,000.

Even though the contribution rates for the State and School Divisions decreased, there was an increase of approximately $13,215,000 in member and employer contributions because of 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 1992, this totaled $562,883,000, an increase of 16.7 percent from 1991; an increase in benefits due to legislation and a greater number of health care participants accounted for most of the increases.

Total revenues of $1,315,161,000 exceeded expenses of $562,883,000 by $752,278,000 during 1992. Administrative expenses are controlled by an annual budget approved by the PERA Board of Trustees and represent 0.1 percent of total assets.

Value of Accumulated Plan Benefits (Reserves)

Accumulated plan benefits, as presented in our audited financial statements, total $9,544,193,000. 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

Colorado's economy continues to outperform the U.S. economy. Jobs and inflation-adjusted income grew at their strongest rate since 1989. A 2.7 percent projected job growth for 1993 will remain well above national averages.

In 1992, increasing inflationary pressures were more prevalent in Colorado than in other parts of the nation because of continued growth. Bolstered by a strong tourism season, high levels of home building and sales and low debt, consumer spending is projected to increase 8.4 percent in 1993.

Colorado experienced the third highest rate of population growth in the nation during 1992. The state's population increased by 2.7 percent, led by an estimated 60,000-plus gain from people moving to the state. As the national economy improves relative to the local economy, there should be less incentive for moves to the state, and population growth should slow somewhat.

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 1992, realized income from both long-term and short-term investments amounted to $803,045,000. This exceeded the contributions by members and employers of $259,687,000 and $360,179,000, respectively.

For the year ended December 31, 1992, the total fund had a rate of return of 6.4 percent on a market value basis. The Association's annualized rate of return over the last five years was 11.1 percent, and over the last 10 years, the average annualized return was 11.5 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 61), 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 1992

Most of the Association's challenges for the year came in the form of state and federal legislation.

In 1992, the Board initiated legislation to increase benefits. Despite significant budget pressure, our benefit package was enacted with only a limited reduction in employer contributions that does not jeopardize the actuarial soundness of the fund.

Amendment One, an initiative setting tax and spending limitations, was added to the Colorado Constitution in November 1992. Although many members, benefit recipients and affiliated employers wondered if the amendment could adversely impact the Fund, we believe that it has no direct effect on us. However, the amendment does affect the Association indirectly since the budgets of our affiliated employers are severely impacted.

On the federal level, a new tax law required PERA to withhold 20 percent of a member's contribution account if the account is refunded directly to the individual beginning in January 1993.

PERA devotes much attention to advising members about their current or future benefits and assisting them in making personal data record changes. During 1992, staff members met individually with more than 4,500 members and benefit recipients in PERA's offices and responded to 45,500 letters and other inquiries. Infoline, a toll-free telephone information center, answered more than 75,400 calls from members, retirees and employers.

PERA employees conducted 296 meetings and staffed 31 information tables at events throughout Colorado to provide information about plan benefits; more than 12,700 members, retirees, and other persons attended these meetings, and more than 1,700 persons were contacted at the information tables.

Also, 12 meetings were held to educate nearly 400 PERA-affiliated employer staff members about procedures and policies. Finally, the PERA Field Counseling Program provided individual counseling to more than 1,000 members around the state.

In May 1992, a Board of Trustees election was held. Two Board members were re-elected to their positions — Marsha M. Jackson and Richard Lansford, both representing School Division members. A new member, Jack Darnell, was elected to represent State Division members.

In December, Patrick E. Dougherty and Gar McInnis resigned from the Board, and in January 1993, Donald P. Smith, Jr., resigned. Mark J. Anderson, Henry S. Rael and Leonard P. Plank, respectively, were named to fill the vacated positions until June 30, 1993. The resignations were due to an employer disaffiliation and retirements.

During 1992, seven new public employers affiliated with PERA, and members of two employers voted to disaffiliate from the Association.

The PERA Voluntary Investment Program, a 401(k) tax-deferred supplemental retirement plan, continued to progress during the year. Assets grew from $30 million at the end of 1991 to $42.4 million at the end of 1992. The Other PERA Programs Section contains a detailed report on the 401(k) plan on page 78.

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 1992.

Respectfully submitted,

Robert J. Scott
Executive Director

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, 1991

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.

GOVERNMENT FINANCE OFFICERS ASSOCIATION OF THE UNITED STATES AND CANADA CORPORATION SEAL CHICAGO

President

Executive Director

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 Toll-Free 1-800-759-PERA (7372)

June 19, 1993

To all PERA Members, Benefit Recipients and Employers:

The 1992 Comprehensive Annual Financial Report of the Public Employees' Retirement Association presents a detailed view of the financial and actuarial status of your retirement system. The pension fund continues to grow, passing the $12 billion mark during 1992.

Every five years, a special actuarial study is conducted to determine if benefit changes can be made that do not jeopardize the actuarial soundness of the fund. Such a study was completed in the fall of 1991 and found the Association in excellent financial condition. As a result, we were able to make several important benefit changes with the cooperation of the State Legislature. At the same time, employer costs were reduced.

I am pleased to recap the following bills that were initiated by your Board of Trustees and became law. These culminated in eight substantial improvements to the PERA plan.

- House Bill 1335 increased the percent of highest average salary paid for service credit between 20 and 40 years for future retirees, authorized a recalculation of 15,000 current benefits to reflect the new benefit formula, changed the annual increase from 3 to 4 percent of the initial benefit amount, and paid a cost-of-living increase in benefits that began in 1990 or earlier. (Subsequently in 1993, legislation changed the benefit cost-of-living increases to 3.5 percent compounded annually on the total benefit amount. This will begin in 1994.)

- House Bill 1205 made five revisions to PERA benefits including provisions that permit PERA retirees to work after retirement for a PERA-affiliated employer for a longer period than before, authorizes the Association to use purchased service credit years in the calculation for cost-of-living increases, and allows members to use their PERA 401(k) accounts to purchase service credit within 150 days after leaving employment.

- Senate Bill 150 raised the maximum percentage of the fund that PERA can invest in corporate stocks from 50 to 65 percent of fund assets.

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

Sincerely,

Frank V. Taulli

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 1992.

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

Marsha M. Jackson
Vice Chairman of the Board
- Member since 1986
- Represents school employees
- Elementary classroom teacher, Mesa County School District
- Current term expires June 30, 1996

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

Jack L. Darnell
- Member since 1992
- Represents state employees
- Colorado State Patrol sergeant
- Replaced George Meares; current term expires June 30, 1996

Patrick E. Dougherty
- Member since 1988
- Represents municipal employees
- Developmental Engineer, City of Arvada
- Resigned December 31, 1992

John Ehnes
- Member since 1989
- Represents state employees
- Deputy Insurance Commissioner, State of Colorado
- Current term expires June 30, 1993

Ada Houck
- Member since 1973
- Represents retirees
- Retired elementary teacher
- Current term expires June 30, 1993

Julie Konzak
- Member since 1991
- Represents state employees
- Assistant Vice President for Academic Affairs, University of Northern Colorado
- Current term expires June 30, 1995

Richard Lansford
- Member since 1990
- Represents school employees
- Math teacher, Jefferson County Public Schools
- Current term expires June 30, 1996

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

Gar McInnis
- Member since 1986
- Represents municipal employees
- Risk and Insurance Administrator, City of Colorado Springs
- Resigned December 31, 1992

George H. Meares
- Member since 1987
- Represented state employees
- Controller, State Department of Highways
- Term expired on June 30, 1992

J. Kim Natale
- Member since 1985
- Represents school employees
- Math and science teacher, Jefferson County Public Schools
- Current term expires June 30, 1993

Timothy M. O'Brien
- Member since 1985
- State Auditor
- Continuous term, ex-officio

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

Donald P. Smith, Jr.
- Member since 1987
- Represents judges
- Judge, Colorado Court of Appeals
- Resigned January 31, 1993

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

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 Statues. 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 contributed 12.3 percent from January through June 1992, and 11.5 percent thereafter. 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 65.

The Schedule of Computed Employer Contribution Rates on page 64 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 were increased from 1.25 to 1.5 percent of HAS for each year between 20 and 40 years beginning July 1, 1992. 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.

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

Survivor Benefits

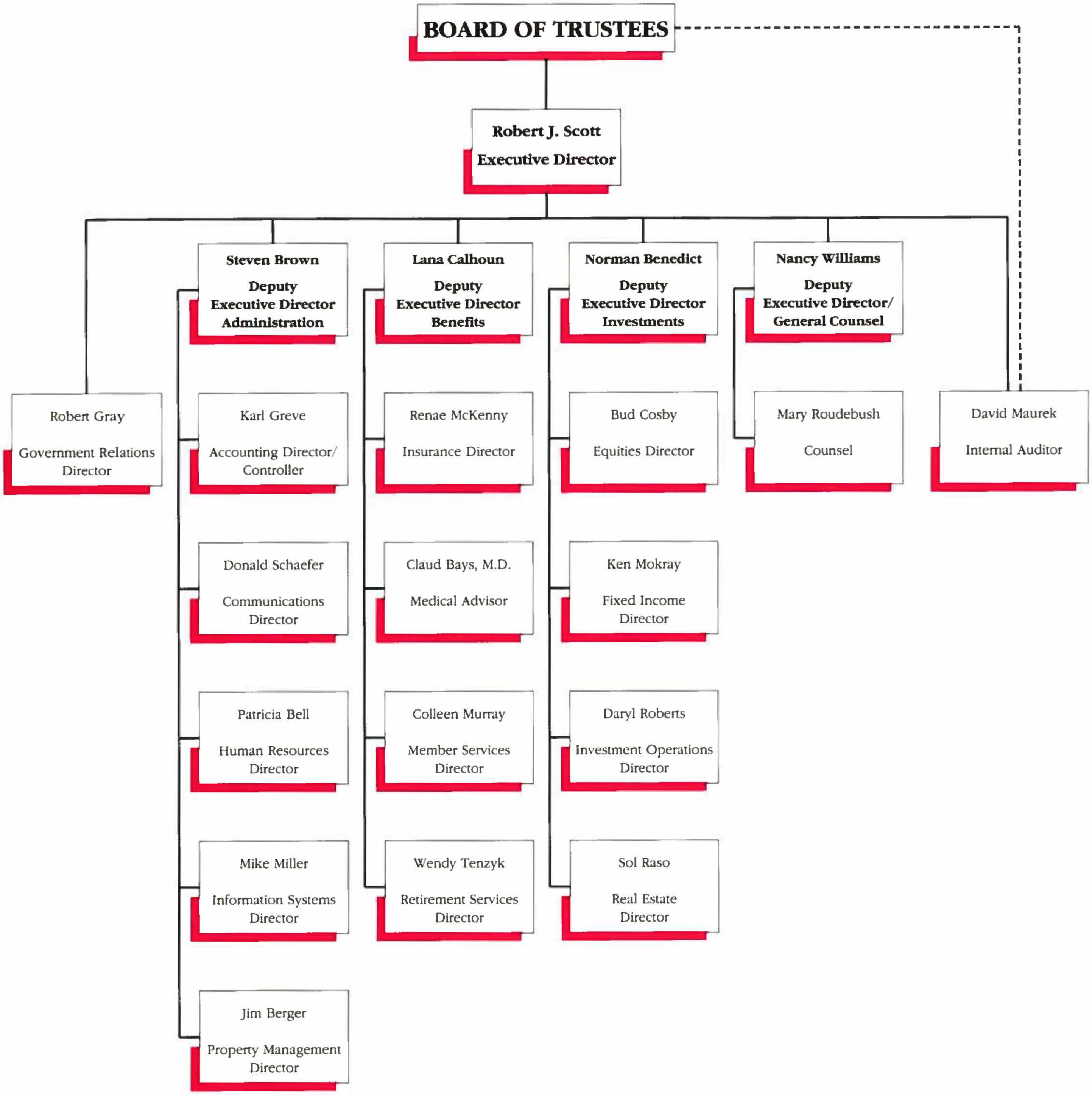
If a member dies before retirement with at least one year of PERA service credit, his or her eligible, unmarried dependent children will receive monthly survivor benefits. Children are eligible if under age 18 or, if enrolled full-time in an accredited school within six months of the member's death, 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



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

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

1991 Pension Actuary
Gabriel, Roeder, Smith & Company
1000 Town Center, Suite 1000
Southfield, MI 48075

1992 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

"The responsibility of PERA's Board of Trustees is the same as that of the captain and crew of a large ship – we must find the direction that best leads to financial security and steer PERA on that course. Our challenge is to protect and preserve the financial integrity of the fund."

– Frank V. Taulli,
Chairman,
PERA Board of Trustees

FINANCIAL SECTION

Report of the Independent Accountants

950 Seventeenth Street
Suite 2600
Denver, CO 80202

Telephone 303 893 8100

Price Waterhouse

May 21, 1993

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, 1992 and 1991, 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.

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. 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, 1992 and 1991
(In Thousands of Dollars)

Assets	**1992**	**1991**
Investments, at fair value:		
U.S. Government obligations	$ 1,785,375	$ 1,547,775
Domestic corporate bonds	1,790,028	2,321,784
Domestic stocks	5,083,031	4,219,431
International stocks and currency	1,290,350	1,369,101
International fixed income and currency	223,121	211,499
Guaranteed investment contracts	551,120	505,602
Fixed rate mortgages	244,953	267,039
Real estate	418,331	443,844
Participating mortgages	104,269	96,228
Leveraged buyout funds	133,484	118,639
Venture capital funds	84,534	101,830
Timber investments	55,871	—
Taxable municipal bonds	17,793	15,775
Total investments	11,782,260	11,218,547
Receivables:		
Employers	50,545	49,353
Investment settlements and income	113,362	107,721
Other	2,968	2,756
Total receivables	166,875	159,830
Cash and short-term investments	439,887	273,700
Property and equipment, at cost, net of accumulated depreciation of $8,352 and $6,711, respectively	14,639	15,645
Total assets	12,403,661	11,667,722

Liabilities and Reserves

Investment settlements and other	33,831	50,170
Reserves:		
Insurance dividend reserve	13,707	14,593
Health care fund	66,263	61,080
Total reserves	79,970	75,673
Total liabilities and reserves	113,801	125,843
Commitments and contingencies (Note 6)	—	—
Net assets available for benefits	$ 12,289,860	$ 11,541,879

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, 1992 and 1991
(In Thousands of Dollars)

	1992	1991
Investment income:		
Interest	$ 404,364	$ 429,017
Dividends	153,996	142,267
Net appreciation in fair value of investments	158,891	1,200,011
Real estate operating income, net	33,402	29,953
Foreign exchange translation gains (losses)	(79,235)	28,917
Total investment income	671,418	1,830,165
Contributions:		
Employers	360,179	364,063
Members	259,687	242,588
Retiree health care premiums	14,409	12,496
Service credit purchases	9,468	10,412
Total contributions	643,743	629,559
Transfers:		
Benefits paid to retirees/cobeneficiaries	(440,327)	(388,526)
Benefits paid to survivors	(13,211)	(12,118)
Benefits paid for health care participants	(40,904)	(35,540)
Refunds of contribution accounts, including interest	(32,674)	(28,379)
Other, net	(21,031)	(4,572)
Total transfers	(548,147)	(469,135)
Administrative expenses	(14,736)	(13,313)
Net (increase) decrease in insurance dividend reserve, net of administrative fees	887	(823)
Net increase in reserve for health care fund	(5,184)	(11,643)
Net increase	747,981	1,964,810
Net assets available for benefits:		
Beginning of year	11,541,879	9,577,069
End of year	$ 12,289,860	$ 11,541,879

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

Combined Statement of Accumulated Plan Benefits

As of December 31, 1992 and 1991
(In Thousands of Dollars)

	1992	1991
Actuarial present value of accumulated plan benefits:		
Vested benefits:		
Benefit recipients	$4,794,696	$4,175,112
Other members	3,922,539	4,049,779
Total vested benefits	8,717,235	8,224,891
Non-vested benefits	826,958	743,598
Total actuarial present value of accumulated plan benefits	$9,544,193	$8,968,489

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, 1992 and 1991
(In Thousands of Dollars)

	1992	1991
Actuarial present value of accumulated plan benefits at beginning of year	$8,968,489	$8,109,960
Increase (decrease) during the year attributable to:		
Benefits accumulated and interest amortization, net of refunds	1,029,242	1,259,173
Benefits paid	(453,538)	(400,644)
Actuarial present value of accumulated plan benefits at end of year	$9,544,193	$8,968,489

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

Notes to Combined Financial Statements

December 31, 1992 and 1991
(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 the Public Employees' Retirement Association. 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 are as follows:

	As of December 31 1992	1991
State	82	79
School	193	195
Municipal	84	79
Judicial	6	6
Total employers	365	359

Benefit recipients and members in PERA consisted of the following as of December 31, 1992 and 1991:

	State	School	Municipal	Judicial	*Combined Totals* 1992	1991
Retirees and beneficiaries currently receiving benefits, and terminated members entitled to benefits but not yet receiving them	17,759	21,429	2,023	191	41,402	39,263
Members:						
Vested	24,459	38,378	4,037	192	67,066	65,638
Non-vested	25,470	38,291	6,015	56	69,832	66,673
Totals	67,688	98,098	12,075	439	178,300	171,574

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 troopers, who contribute 12.3 percent (11.5 percent beginning July 1, 1992). 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.

Notes to Combined Financial Statements

(In Thousands of Dollars)

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 1992 and 1991 interest rates were 4.1125 percent and 5.7 percent, respectively.

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 increase service credit 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, 1992 through December 31, 1992**	**May 1, 1992 through June 30, 1992**	**July 1, 1991 through April 30, 1992**	**January 1, 1991 through June 30, 1991**
State	All members except State Troopers	10.6%	5.6%	11.6%	12.2%
	State Troopers	12.2%	7.2%	13.2%	13.2%
School	All members	11.6%	12.2%	12.2%	12.5%
Municipal	All members	10.0%	10.0%	10.0%	10.2%
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:

Minimum Service Credit	Minimum Age
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 1.25 percent (1.5 percent beginning July 1, 1992) 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 75 percent of HAS (80 percent beginning July 1, 1992).

Members may also retire earlier with a reduced benefit 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 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.

Notes to Combined Financial Statements

(In Thousands of Dollars)

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.

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 1991 balances have been reclassified to be consistent with the 1992 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. The 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 cost-of-living increases from the CLSF.

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. The 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 the guaranteed investment contracts and 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 are based on independent appraisals.

Guaranteed investment contracts (Note 4) are recorded at contract value, representing principal plus accrued interest at the stated contract rate. Short-term investments are carried at cost, which approximates fair value.

Notes to Combined Financial Statements

(In Thousands of Dollars)

During 1992 and 1991, the Plan's investments (including investments bought and sold, as well as those held for the year) appreciated in value by $158,891 and $1,200,011, respectively, as follows:

	1992	1991
Fair values measured by quoted prices in active markets:		
Cash and short-term investments	$ 1,394	$ 2,415
U.S. Government obligations	(8,242)	136,431
Domestic corporate bonds	(40,289)	162,271
Domestic stocks	266,512	831,082
International stocks and currency	(43,428)	101,967
International fixed income and currency	11,366	12,332
Taxable municipal bonds	2,278	3,525
Fair values measured otherwise:		
Guaranteed investment contracts	—	—
Fixed rate mortgages	(17,798)	16,728
Real estate	(40,361)	(82,409)
Participating mortgages	(558)	297
Leveraged buyout funds	10,818	9,447
Venture capital funds	(1,748)	5,925
Timber investments	18,947	—
Total	$ 158,891	$ 1,200,011

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 ownership as a percentage. As of December 31, 1992 and 1991, the ownership percentages of each fund were as follows:

	Ownership Percentage as of December 31 1992	1991
State	38.06 %	38.28 %
School	54.84 %	54.62 %
Municipal	5.07 %	5.12 %
Judicial	.53 %	.53 %
CLSF	.83 %	.76 %
HCF	.56 %	.56 %
IDR	.11 %	.13 %
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 of the Financial Accounting Standards Board.

The actuarial present value of accumulated plan benefits was calculated by the firm of Towers Perrin and Gabriel, Roeder, Smith & Company for 1992 and 1991, respectively, 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,

Notes to Combined Financial Statements

(In Thousands of Dollars)

disability, withdrawal and retirement) between the valuation date and the expected date of payment. The significant actuarial assumptions underlying the actuarial calculations for the years ended December 31, 1992 and 1991, are as follows:

Actuarial Assumptions	1992	1991
Investment return	8.5% compounded annually	7.5% compounded annually
Average retirement age		
Men	Ranging from 60 to 65	Ranging from 60 to 65
Women	Ranging from 60 to 65	Ranging from 60 to 65
Life expectancy	Colorado Projected Experience Table - 90	1971 Group Annuity Male and Female Mortality Tables

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, 1992 and 1991, were as follows:

	Contributions	
	1992	**1991**
Contributions made by:		
Employers	$ 266,773	$ 278,933
Members	259,687	242,588
Total contributions	$ 526,460	$ 521,521
Contributions consisted of:		
Normal cost	$ 442,873	$ 471,169
Amortization of the UAAL	83,587	50,352
Total contributions	$ 526,460	$ 521,521
Amortization periods computed to fund UAAL	0 to 23 years	16 to 31 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, 1992 and 1991 was as follows:

	Unfunded Actuarial Accrued Liability	
	1992	**1991**
State	$ 646,490	$ 564,172
School	442,244	430,104
Municipal	(7,026)	14,477
Judicial	4,360	4,396
Total	$ 1,086,068	$ 1,013,149

Notes to Combined Financial Statements

(In Thousands of Dollars)

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.

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 increase amount 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 1992, the CLSF received $65,946 in contributions from employers. Also in 1992, the CLSF recognized $56,919 of benefits paid. The net assets of the CLSF at December 31, 1992 and 1991, totaling $108,058 and $93,490, respectively, are included in net assets available for benefits presented in the Combined Statement of Net Assets Available for Benefits.

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 1992, the HCF paid up to a fixed dollar amount and the benefit recipient paid the remaining portion of the premium. In 1992 and 1991, 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 1992, the HCF received $27,460 in contributions from employers, and $14,409 in payments made by benefit recipients for their portion of PERA's self-insured plans. Also in 1992, the HCF recognized $40,904 of benefits paid. The reserve for future post-employment health care benefits as of December 31, 1992 and 1991, totaled $66,263 and $61,080, respectively. The future projected liability of claims on the HCF was $501,684 as of December 31, 1992, as calculated by PERA's consulting health care actuary.

Note 4 - Guaranteed Investment Contracts:

Since 1988, PERA has purchased 13 guaranteed notes issued by various insurance companies at a cost of $410,000, earning interest at rates ranging from 8.21 to 9.44 percent, guaranteed through varying maturities in 1993, 1994 and 1995. Their current contract value is $551,120.

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 13 notes are rated as high quality by Moody's Investors Service for issuers of guaranteed investment contracts.

Note 5 - Investments:

Investment Authority

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

Notes to Combined Financial Statements

(In Thousands of Dollars)

- 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.

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, 1992:

	Carrying Value	Bank Balance
Deposits (overdrafts) with banks (fully insured by federal depository insurance)	$ (14,214)	$ 226
Money market funds held at bank (fully collateralized by the underlying securities, held by PERA's agent in PERA's name)	454,101	454,101
Total cash and short-term investments	$ 439,887	$ 454,327

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, 1992, 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 1	2	3	Amortized Cost	Fair Value
U.S. Government obligations	$1,743,651	$ —	$ —	$ 1,743,651	$ 1,785,375
Domestic corporate bonds	1,550,683	—	—	1,550,683	1,546,760
Domestic stocks	4,053,819	—	—	4,053,819	5,083,031
International stocks and currency	1,278,913	—	—	1,278,913	1,290,350
International fixed income and currency	225,605	—	—	225,605	223,121
Taxable municipal bonds	29,740	—	—	29,740	17,793
Subtotal	$8,882,411	$ —	$ —	8,882,411	9,946,430
Domestic corporate bonds				238,992	243,268
Guaranteed investment contracts				551,120	551,120
Fixed rate mortgages				302,127	244,953
Real estate				572,772	418,331
Participating mortgages				104,269	104,269
Leveraged buyout funds				126,555	133,484
Venture capital funds				80,966	84,534
Timber investments				37,466	55,871
Total investments				$ 10,896,678	$ 11,782,260

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, 1992 and 1991, the cash and short-term investments reported with international stocks and fixed income were as follows:

	1992	1991
International stocks and currency:		
International stocks	$ 1,216,160	$ 1,301,416
Cash and short-term investments	74,190	67,685
Total	$ 1,290,350	$ 1,369,101
International fixed income and currency:		
International fixed income	$ 207,920	$ 138,786
Cash and short-term investments	15,201	72,713
Total	$ 223,121	$ 211,499

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, 1992, PERA had investments loaned with an aggregate fair value of $1,614,054 and a total collateral value of $1,652,263 or 102.4 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, 1992, PERA was committed to the future purchase of investments at an aggregate cost of approximately $274,082.

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 - 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, 1992 and 1991. 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 and 7.5 percent per year, respectively, compounded annually.
- Projected salary increases of 5.5 percent per year compounded annually, attributable to inflation.
- Additional projected salary increases ranging from 0 to 7.4 percent per year depending on age, attributable to seniority/merit.
- Projected benefit increases are 4 percent and 3 percent per year, respectively, after retirement.

Notes to Combined Financial Statements

(In Thousands of Dollars)

At December 31, 1992 and 1991, 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 1992	Combined Totals 1991
Pension benefit obligation						
Retirees and beneficiaries currently receiving benefits	$ 2,104,231	$ 2,453,557	$ 208,039	$ 28,869	$ 4,794,696	$ 4,175,112
Terminated members not yet receiving benefits	49,521	70,264	5,838	503	126,126	120,553
Current members:						
Accumulated employee contributions including allocated investment income	790,755	1,064,699	115,381	10,065	1,980,900	1,774,576
Employer financed – vested	1,629,754	2,474,210	183,635	19,532	4,307,131	4,190,345
Employer financed – non-vested	60,922	55,682	8,857	968	126,429	131,538
Total pension benefit obligation	4,635,183	6,118,412	521,750	59,937	11,335,282	10,392,124
Net assets available for benefits, at fair value (net of CLSF assets)	4,709,091	6,779,973	626,974	65,764	12,181,802	11,448,389
Assets in excess of pension benefit obligation	$ 73,908	$ 661,561	$ 105,224	$ 5,827	$ 846,520	$ 1,056,265

Note 8 - Subsequent Events:

In March 1993, a bill was proposed by the PERA Board of Trustees to allow PERA members more flexibility as they plan for retirement. These changes will allow over 2,500 PERA members under the age of 55 to retire immediately or within a few years.

HB93-1324 is effective July 1, 1993, and has the following effects on PERA:

- **Retirement Before Age 55 with at Least 25 Years of Service** – Members with at least 25 years of service credit can now retire and begin receiving a reduced retirement benefit as early as age 50. Benefits will be reduced by 6 percent for each year under age 55.
- **Indexing Benefits for Vested Inactive Members** – 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 he or she ends employment. PERA can increase a benefit up to 3.5 percent for each year from July 1, 1993, or the date employment was ended, whichever is later, to the date a benefit begins (depending on inflation).
- **Benefit Cost-of-Living Increases Changed** – The assets and contributions of the CLSF will be folded into the four major divisions of the pension fund. Future cost-of-living increases will be at a compounded rate of up to 3.5 percent per year.

Effective April 23, 1993, the Board of Trustees temporarily reduced the cost to purchase service credit for employment not covered by PERA from 19.1 to 15 percent of salary until December 31, 1994 for most members. The new cost for state troopers is 20.6 percent, and for judges the cost is 18.9 percent.

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 below. 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[1]

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 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]	(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)
1992						
State	$ 4,709,091	$ 4,635,183	101.59%	$ (73,908)	$ 1,420,758	(5.20)%
School	6,779,973	6,118,412	110.81%	(661,561)	1,754,969	(37.70)%
Municipal	626,974	521,750	120.17%	(105,224)	244,327	(43.07)%
Judicial	65,764	59,937	109.72%	(5,827)	16,640	(35.02)%
Totals	$ 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)%

[1] The information for this schedule is for 1986-1992 only; information for previous years is unavailable.
[2] At fair value, excluding CLSF assets.

Schedule I – Combining Statement of Net Assets Available for Benefits

As of December 31, 1992, with Comparative Combined Totals for 1991

(In Thousands of Dollars)

	State Division Trust Fund	School Division Trust Fund
Assets		
Investments, at fair value:		
U.S. Government obligations	$ 679,536	$ 978,976
Domestic corporate bonds	681,307	981,527
Domestic stocks	1,934,666	2,787,182
International stocks and currency	491,123	707,539
International fixed income and currency	84,923	122,344
Guaranteed investment contracts	209,763	302,196
Fixed rate mortgages	93,232	134,315
Real estate	159,222	229,384
Participating mortgages	39,686	57,174
Leveraged buyout funds	50,807	73,193
Venture capital funds	32,174	46,353
Timber investments	21,265	30,637
Taxable municipal bonds	6,773	9,756
Total investments	4,484,477	6,460,576
Receivables:		
Employers	21,126	25,468
Investment settlements and income	43,147	62,159
Other	2,436	3,830
Total receivables	66,709	91,457
Cash and short-term investments	167,445	241,230
Property and equipment, at cost, net of accumulated depreciation of $8,352 and $6,711, respectively	—	—
Total assets	4,718,631	6,793,263
Liabilities and Reserves		
Investment settlements and other	9,540	13,290
Reserves:		
Insurance dividend reserve	—	—
Health care fund	—	—
Total reserves	—	—
Total liabilities and reserves	9,540	13,290
Commitments and contingencies (Note 6)	—	—
Net assets available for benefits	$ 4,709,091	$ 6,779,973

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* 1992	1991
$ 90,512	$ 9,461	$ 14,867	$ 9,997	$ —	$ 2,026	$ 1,785,375	$ 1,547,775
90,749	9,485	14,905	10,023	—	2,032	1,790,028	2,321,784
257,691	26,935	42,326	28,462	—	5,769	5,083,031	4,219,431
65,416	6,837	10,745	7,225	—	1,465	1,290,350	1,369,101
11,311	1,183	1,858	1,249	—	253	223,121	211,499
27,940	2,920	4,589	3,086	—	626	551,120	505,602
12,418	1,298	2,040	1,372	—	278	244,953	267,039
21,208	2,217	3,483	2,342	—	475	418,331	443,844
5,286	553	868	584	—	118	104,269	96,228
6,767	707	1,112	747	—	151	133,484	118,639
4,286	448	704	473	—	96	84,534	101,830
2,832	296	465	313	—	63	55,871	—
902	94	148	100	—	20	17,793	15,775
597,318	62,434	98,110	65,973	—	13,372	11,782,260	11,218,547
3,484	517	—	(50)	—	—	50,545	49,353
5,747	601	944	635	—	129	113,362	107,721
348	5	5,534	4,494	(14,081)	402	2,968	2,756
9,579	1,123	6,478	5,079	(14,081)	531	166,875	159,830
22,303	2,332	3,663	2,463	(48)	499	439,887	273,700
—	—	—	—	14,639	—	14,639	15,645
629,200	65,889	108,251	73,515	510	14,402	12,403,661	11,667,722
2,226	125	193	7,252	510	695	33,831	50,170
—	—	—	—	—	13,707	13,707	14,593
—	—	—	66,263	—	—	66,263	61,080
—	—	—	66,263	—	13,707	79,970	75,673
2,226	125	193	73,515	510	14,402	113,801	125,843
—	—	—	—	—	—	—	—
$ 626,974	$ 65,764	$ 108,058	$ —	$ —	$ —	$ 12,289,860	$ 11,541,879

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

For the Year Ended December 31, 1992, with Comparative Combined Totals for 1991

(In Thousands of Dollars)

	State Division Trust Fund	School Division Trust Fund
Investment income:		
Interest	$ 154,338	$ 221,142
Dividends	58,663	84,055
Net appreciation in fair value of investments	60,429	87,035
Real estate operating income, net	12,749	18,268
Foreign exchange translation gains (losses)	(30,569)	(43,124)
Total investment income	255,610	367,376
Contributions:		
Employers	97,956	150,641
Members	107,865	132,446
Retiree health care premiums	—	—
Service credit purchases	3,711	5,524
Total contributions	209,532	288,611
Transfers:		
Benefits paid to retirees/cobeneficiaries	(199,402)	(219,806)
Benefits paid to survivors	(6,535)	(5,419)
Benefits paid for health care participants	—	—
Refunds of contribution accounts, including interest	(15,960)	(12,623)
Other, net	22,661	26,151
Total transfers	(199,236)	(211,697)
Administrative expenses	(4,919)	(7,202)
Net (increase) decrease in insurance dividend reserve, net of administrative fees	—	—
Net increase in reserve for health care fund	—	—
Net increase	260,987	437,088
Net assets available for benefits:		
Beginning of year	4,448,104	6,342,885
End of year	$ 4,709,091	$ 6,779,973

[1] Employer contributions into this fund are as follows: State, $26,709; School, $33,102; Municipal, $5,821; Judicial, $314.
[2] Employer contributions into this fund are as follows: State, $10,684; School, $13,241; Municipal, $3,409; Judicial, $126.
[3] Transfers from this fund are as follows: State, $(27,523); School, $(26,824); Municipal, $(2,109); Judicial, $(463).

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*	
						1992	1991
$ 20,820	$ 2,146	$ 3,247	$ 2,184	$ —	$ 487	$ 404,364	$ 429,017
7,913	816	1,234	830	—	485	153,996	142,267
8,232	840	1,336	843	—	176	158,891	1,200,011
1,720	177	268	180	—	40	33,402	29,953
(4,002)	(427)	(544)	(451)	—	(118)	(79,235)	28,917
34,683	3,552	5,541	3,586	—	1,070	671,418	1,830,165
16,259	1,917	65,946[1]	27,460[2]	—	—	360,179	364,063
18,122	1,254	—	—	—	—	259,687	242,588
—	—	—	14,409	—	—	14,409	12,496
216	17	—	—	—	—	9,468	10,412
34,597	3,188	65,946	41,869	—	—	643,743	629,559
(18,141)	(2,978)	—	—	—	—	(440,327)	(388,526)
(1,005)	(252)	—	—	—	—	(13,211)	(12,118)
—	—	—	(40,904)	—	—	(40,904)	(35,540)
(3,965)	(126)	—	—	—	—	(32,674)	(28,379)
(13,668)	320	(56,919)[3]	633	1,748	(1,957)	(21,031)	(4,572)
(36,779)	(3,036)	(56,919)	(40,271)	1,748	(1,957)	(548,147)	(469,135)
(831)	(36)	—	—	(1,748)	—	(14,736)	(13,313)
—	—	—	—	—	887	887	(823)
—	—	—	(5,184)	—	—	(5,184)	(11,643)
31,670	3,668	14,568	—	—	—	747,981	1,964,810
595,304	62,096	93,490	—	—	—	11,541,879	9,577,069
$ 626,974	$ 65,764	$ 108,058	$ —	$ —	$ —	$ 12,289,860	$ 11,541,879

Schedule III – Combining Statement of Accumulated Plan Benefits

As of December 31, 1992, with Comparative Combined Totals for 1991

(In Thousands of Dollars)

	State Division Trust Fund
Actuarial present value of accumulated plan benefits:	
Vested benefits:	
Benefit recipients	$2,104,231
Other members	1,561,268
Total vested benefits	3,665,499
Non-vested benefits	318,462
Total actuarial present value of accumulated plan benefits	$3,983,961

Schedule IV – Combining Statement of Changes in Accumulated Plan Benefits

For the Year Ended December 31, 1992, with Comparative Combined Totals for 1991

(In Thousands of Dollars)

	State Division Trust Fund
Actuarial present value of accumulated plan benefits at beginning of year	$3,791,691
Increase (decrease) during the year attributable to:	
Benefits accumulated and interest amortization, net of refunds	398,207
Benefits paid	(205,937)
Actuarial present value of accumulated plan benefits at end of year	$3,983,961

School Division Trust Fund	Municipal Division Trust Fund	Judicial Division Trust Fund	Combined Totals 1992	Combined Totals 1991
$2,453,557	$208,039	$28,869	$4,794,696	$4,175,112
2,161,377	178,719	21,175	3,922,539	4,049,779
4,614,934	386,758	50,044	8,717,235	8,224,891
460,395	46,240	1,861	826,958	743,598
$5,075,329	$432,998	$51,905	$9,544,193	$8,968,489

School Division Trust Fund	Municipal Division Trust Fund	Judicial Division Trust Fund	Combined Totals 1992	Combined Totals 1991
$4,702,923	$422,259	$51,616	$8,968,489	$8,109,960
597,631	29,885	3,519	1,029,242	1,259,173
(225,225)	(19,146)	(3,230)	(453,538)	(400,644)
$5,075,329	$432,998	$51,905	$9,544,193	$8,968,489

"Change is the law of life. And those who look only to the past or present are certain to miss the future."

– John F. Kennedy,
35th President of the
United States

SUPPORTING SCHEDULES FOR FINANCIAL SECTION

Schedule of Administrative Expenses

For the Years Ended December 31, 1992 and 1991

	1992	1991
Personnel services:		
Salaries	$ 6,714,881	$ 5,784,407
Employee benefits	1,627,200	1,515,797
Total personnel services	8,342,081	7,300,204
Staff education:		
Tuition assistance program	92,453	159,495
PERA-required education	287,074	262,562
Other	270	558
Total staff education	379,797	422,615
Professional contracts:		
Actuarial contracts	150,230	212,900
Audits	96,050	94,790
Medical exams	251,160	235,587
Investment counsel	111,242	91,422
Legal and legislative counsel	433,640	509,766
Computer services and consulting	415,696	523,188
Management consulting	127,855	145,048
Health care consultants	90,706	141,513
Other	116,503	35,779
Total professional contracts	1,793,082	1,989,993
Miscellaneous:		
Equipment rental & services	455,076	449,337
Memberships	78,073	65,950
Publications & subscriptions	43,134	49,861
Travel and local expense	311,131	268,269
Board fiduciary expense	130,540	98,600
Auto expense	20,102	14,071
Telephone	136,359	104,133
Postage	548,294	471,931
Insurance	112,209	83,224
Printing	321,993	304,916
Office supplies	285,656	226,636
Building rent, supplies & utilities	299,796	263,891
Other	24,880	35,695
Total miscellaneous	2,767,243	2,436,514
Total budgeted expense	13,282,203	12,149,326
Depreciation expense	1,459,323	1,357,427
Total expense	14,741,526	13,506,753
Interfund transactions	(4,229)	(193,764)
Total administrative expense	$ 14,737,297	$ 13,312,989
Allocation of administrative expense:		
State Division	$ 5,581,162	$ 5,073,580
School Division	8,171,773	7,355,426
Municipal Division	943,278	844,044
Judicial Division	41,084	39,939
Total allocation	$ 14,737,297	$ 13,312,989

Schedule of Cash Receipts and Disbursements

For the Years Ended December 31, 1992 and 1991
(In Thousands of Dollars)

	1992	1991
Cash balance at beginning of year	$ (8,997)	$ (9,247)
Add cash receipts:		
Contributions:		
Members	259,687	242,588
Employers	360,179	364,063
Health care fund	14,409	12,496
Investment income	803,045	875,812
Other receipts	9,468	5,839
Total cash receipts	$ 1,446,788	$ 1,500,798
Less cash disbursements:		
New investment purchases	$ 889,122	$ 1,022,672
Benefit payments	494,442	436,184
Refunds	32,674	28,379
Administrative expenses	14,736	13,313
Other	21,031	—
Total cash disbursements	$ 1,452,005	$ 1,500,548
Cash balance at end of year	$ (14,214)	$ (8,997)

Schedule of Disbursements by Function[1]

(In Thousands of Dollars)

	Contribution Refunds	Interest Paid	Benefit Payments[2]	Administrative Expenses[3]	Total Expenses
State Division					
1983	$ 12,934	$ —	$ 77,262	$ 1,782	$ 91,978
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
School Division					
1983	$ 12,280	$ —	$ 71,506	$ 2,486	$ 86,272
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
Municipal Division					
1983	$ 2,122	$ —	$ 5,989	$ 273	8,384
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
Judicial Division					
1983	$ 13	$ —	$ 1,367	$ 14	$ 1,394
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

[1] Information for 1986-1992 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 1986-1992 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						
1983	$ 61,865	$ 94,148	$ 146,782	$ —	$ 26	$ 302,821
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
School Division						
1983	$ 74,736	$ 118,813	$ 192,869	$ —	$ 56	$ 386,474
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
Municipal Division						
1983	$ 9,888	$ 12,604	$ 18,493	$ —	$ 10	$ 40,995
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
Judicial Division						
1983	$ 736	$ 1,380	$ 2,541	$ —	$ —	$ 4,657
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

[1] The member and employer contribution rate history can be found on page 60. Employer contributions for 1986-1992 are net of Health Care Fund and Cost of Living Stabilization Fund contributions.

[2] Investment income for 1986-1992 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 1990-1992 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.

"Although many seedlings have been lost in the underbrush of new ideas for pension plans, PERA is a tree that shelters and protects many people. It is serving well the purpose for which it was designed and nurtured through the years."

– Raymond J. "Doc" Heath, PERA Executive Director, 1933-1965

INVESTMENTS SECTION

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.

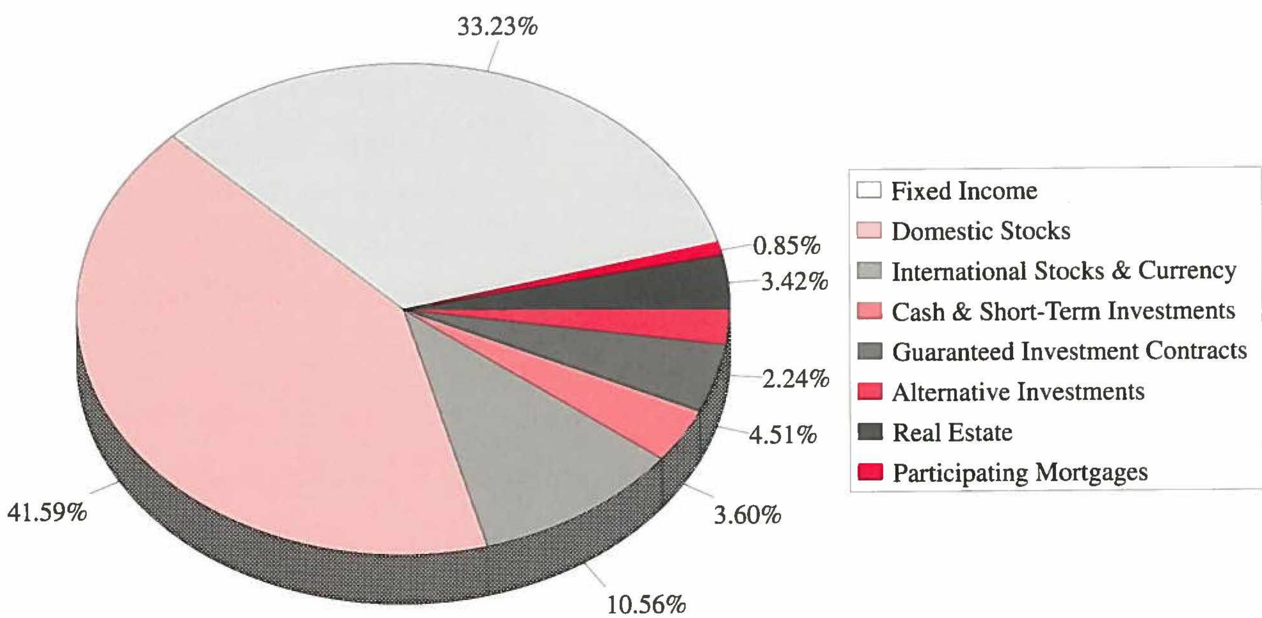
Investment Summary

(In Thousands of Dollars)

Type of Investment	January 1, 1992 Amortized Cost	January 1, 1992 Market Value	December 31, 1992 Amortized Cost	December 31, 1992 Market Value	% Total Market
Cash and short-term investments	$ 268,262	$ 273,700	$ 438,724	$ 439,887	3.60%
Fixed income:					
U.S. Government obligations	1,453,273	1,547,775	1,743,651	1,785,375	14.61%
Taxable municipal bonds	30,000	15,775	29,740	17,793	0.14%
Domestic corporate bonds	2,208,232	2,321,784	1,789,675	1,790,028	14.65%
Fixed rate mortgages	306,465	267,039	302,127	244,953	2.00%
International fixed income and currency	200,759	211,499	225,605	223,121	1.83%
Total fixed income	4,198,729	4,363,872	4,090,798	4,061,270	33.23%
Domestic stocks	3,367,621	4,219,431	4,053,819	5,083,031	41.59%
International stocks and currency	1,263,515	1,369,101	1,278,913	1,290,350	10.56%
Real estate	564,657	443,844	572,772	418,331	3.42%
Participating mortgages	95,931	96,228	104,269	104,269	0.85%
Guaranteed investment contracts	505,602	505,602	551,120	551,120	4.51%
Alternative investments:					
Timber investments	—	—	37,466	55,871	0.46%
Venture capital funds	96,800	101,830	80,966	84,534	0.69%
Leveraged buyout funds	113,020	118,639	126,555	133,484	1.09%
Total alternative investments	209,820	220,469	244,987	273,889	2.24%
Total investments	$ 10,474,137	$ 11,492,247	$ 11,335,402	$ 12,222,147	100.00%

1992 Investments Chart

At Market as of December 31, 1992



Fund Performance Evaluation

Evaluation

PERA retains R.V. Kuhns & Associates to evaluate its fund performance. In the 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, 1992, 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 44.9 percent in stocks (domestic and international), 40.3 percent in bonds, 5 percent in cash and short-term investments, and 9.8 in other assets.

During 1992, assets (at market value) were allocated within the following ranges: stocks, 48.6 to 52.1 percent; bonds, 37.7 to 42.4 percent; cash and short-term investments, 1.3 to 5.3 percent; and other assets, 6.5 to 7.3 percent.

On July 1, 1992, Colorado state law governing PERA was changed so that the Board could invest up to 65 percent of the fund's assets at book value in corporate stock. From January 1 to June 30, 1992, only 50 percent of the fund could be in stocks.

Total Portfolio Results

For the year ended December 31, 1992, the total fund had a positive rate of return of 6.4 percent compared to the Custom Benchmark return of 5.4 percent and the Public Median Fund return of 7.1 percent. The Public Median Fund measure is comprised of a number of different public pension funds used for comparative analysis. The Custom Benchmark is a weighted composite of PERA's assets in proportion to the asset classes in the total fund. This is used to determine the effectiveness of the Association's portfolio managers compared to their benchmarks.

The Association's annualized rate of return over the last 5 years was 11.1 percent, comfortably exceeding inflation and the actuarial assumption rate. The return over the last 10 years was 11.5 percent.

During 1992, PERA's investment focus continued to expand beyond U.S. borders. Investors are witnessing major political changes throughout the world, especially in Eastern Europe, which are expected to result in the emergence of free-market economies. This situation created a reduced return as international markets underperformed domestic markets.

PERA anticipates that international markets will outperform domestic markets in 1993 because interest rates around the world are lower now than in the past.

Domestic Stocks

PERA's domestic stock portfolio achieved a full 1 percent return above the Standard & Poor's 500 Index return for the year.

Stock prices surged in January as the Dow Jones rallied to a record of 3300. From then on, the market stayed in a narrow trading range because of uncertain economic conditions. Some of the positive forces that moved the market up included falling interest rates and moderate inflation, while negative forces that moved the market down included concern about a weakening dollar and high unemployment.

International Stocks

In 1992, PERA's international equity managers continued to invest in selected international stocks. The benchmark by which these stocks are measured is the Europe-Australia-Far East (EAFE) Index. PERA's 1992 composite portfolio result for international stocks was -7.6 percent, which was 4.6 percent above the EAFE benchmark of -12.2 percent.

Domestic Bonds

PERA's fixed income performance is compared to the Shearson Lehman Bond Index. For 1992, the Association achieved a 7.3 percent rate of return, compared to the Shearson return of 7.6 percent.

Interest rates for most fixed income investments fell during 1992, with short-term rates declining the most. Fixed income markets began the year with a rally, but as the year went on, became more inactive due to concerns about inflation.

International Bonds

The funding of more than $200 million for international bond purchases occurred in late 1991. One bond manager was chosen by the Board of Trustees and was fully funded by the beginning of 1992. The benchmark by which international bonds are measured is the Salomon World Government Bond Index. The rate of return for PERA's international bonds was 5.9 percent, 1.1 percent above the Salomon return of 4.8 percent.

Real Estate

The total rate of return for PERA's real estate portfolio was a positive 0.5 percent in 1992 compared to the Institutional Property Consultants Index (IPC) return of -3.9 percent and the Frank Russell/NCREIF Index of -5.5 percent.

On an income basis, PERA's portfolio produced a 7.9 percent return during the year versus the IPC return of 6.5 percent and the NCREIF return of 7.7 percent.

During 1992, the real estate industry continued to deal with oversupply in most markets and property types. Overbuilding in the 1980s combined with the recession in the early 1990s resulted in property devaluations. The total return over the last five years for the real estate portfolio captures these devaluations.

The portfolio continues to be valued conservatively, and future returns are expected to improve.

Annual Rates of Return

	1988	1989	1990	1991	1992	5–Year Annualized
Total portfolio:						
PERA	11.8%	17.2%	1.5%	20.1%	6.4%	11.1%
Public Median Fund	11.5%	18.8%	2.8%	21.7%	7.1%	12.2%
Custom Benchmark	13.0%	19.0%	1.7%	19.9%	5.4%	11.6%
Domestic stocks:						
PERA	14.1%	30.5%	-3.1%	29.6%	8.7%	15.1%
Standard and Poor's 500	16.6%	31.5%	-3.2%	30.6%	7.7%	15.9%
International stocks:						
PERA	N/A	16.4% [1]	-15.4%	14.3%	-7.6%	1.9% [2]
Europe-Australia-Far East Index (EAFE)	28.6%	10.5%	-23.4%	12.9%	-12.2%	-4.5%
Domestic bonds:						
PERA	8.3%	14.3%	7.6%	16.9%	7.3%	10.8%
Shearson Lehman Bond Index	7.6%	14.2%	8.3%	16.1%	7.6%	10.7%
International bonds:						
PERA	N/A	N/A	N/A	N/A	5.9% [3]	N/A
Salomon World Government Bond Index	2.4%	-3.4%	15.3%	16.2%	4.8%	6.8%
Real estate/participating mortgages:						
PERA total	5.9%	-0.1%	-6.1%	-7.5%	0.5%	-1.6%
Income return	7.0%	6.2%	5.8%	6.4%	7.9%	6.9%
Property value increase/decrease	-1.1%	-6.3%	-11.9%	-13.9%	-7.4%	-8.1%
Institutional Property Consultants Index total	7.4%	5.7%	0.0%	-5.4%	-3.9%	0.8%
Income return	5.4%	5.2%	4.9%	4.4%	6.5%	5.4%
Property value increase/decrease	1.9%	0.4%	-4.9%	-9.8%	-10.4%	-4.6%
Frank Russell/NCREIF Index total	7.0%	6.2%	1.5%	-6.1%	-5.0%	0.5%
Income return	7.1%	6.7%	6.7%	6.9%	7.7%	7.0%
Property value increase/decrease	0.0%	-0.5%	-5.0%	-12.3%	-12.0%	-6.1%

[1] 1989 was the first full year PERA invested in international stocks.
[2] Four-year annualized returns for 1989-1992.
[3] 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 $878 million, an increase of $160 million from 1991.

Commercial mortgages	$110,100,000
Committed to future funding	104,800,000
Common stock of companies headquartered in Colorado	40,100,000
Corporate bonds and notes	70,900,000
Real estate	167,200,000
State and local bonds	17,700,000
Funds under management of Colorado companies (venture capital and stock managers)	367,900,000
Total	$878,700,000

Internally Managed Stocks

December 31, 1992

	Shares Held	Cost	Market Value
Equity funds:			
Small Cap Equity Fund	6,090,013	$ 100,895,582	$ 147,085,197
S&P 500 Index Fund	18,441,262	478,690,992	525,115,245
Index Tilt Fund	47,922,925	1,551,326,675	2,076,307,823
S&P Mid Cap Index Fund	17,614,025	613,197,103	768,968,204
Momentum Fund	2,946,040	64,811,948	73,175,997
Subtotal	93,014,265	$ 2,808,922,300	$ 3,590,652,466
Actively managed fund:			
ADC Telecommunications, Inc.	180,000	$ 4,868,707	$ 8,325,000
AMP Inc.	240,000	9,773,868	13,920,000
AMR Corp.	47,000	2,929,189	3,172,500
AST Research, Inc.	9,700	194,825	203,700
Abbott Laboratories	300,000	2,535,456	9,112,500
Aetna Life & Casualty Co.	253,100	9,586,066	11,769,150
Ahmanson (H.F.) & Co.	11,000	201,650	211,750
Aluminum Co. of America	145,000	10,084,527	10,385,625
Alza Corp.	25,000	1,042,138	1,175,000
American Express Co.	428,200	10,400,679	10,651,475
American International Group, Inc.	55,000	4,825,951	6,380,000
American Telephone & Telegraph Co.	250,000	9,499,370	12,750,000
Amoco Corp.	75,000	2,731,186	3,656,250
AMRE, Inc.	18,000	203,013	126,000
AmSouth Bancorporation	7,800	199,802	254,475
Anadarko Petroleum Corp.	225,000	6,185,608	6,609,375
Apache Corp.	94,000	1,423,565	1,762,500
Apple Computer, Inc.	180,000	8,789,999	10,755,000
Armco Inc.	600,000	2,907,781	3,975,000
Atlantic Richfield Co.	60,000	4,363,425	6,885,000
Avnet, Inc.	325,000	8,660,260	11,212,500
BB&T Financial Corp.	7,800	198,900	248,625
Baker Hughes Inc.	600,000	15,832,149	11,775,000
Ball Corp.	151,200	4,705,185	5,348,700
Banc One Corp.	194,500	5,127,727	10,332,813
Baroid Corp.	600,000	3,754,000	3,375,000
BellSouth Corp.	100,000	4,502,209	5,137,500
Berkley (W.R.) Corp.	5,600	201,880	240,800
Blockbuster Entertainment Corp.	600,000	7,184,747	11,250,000
Boeing Co.	175,000	9,241,750	7,021,875
Boston Bancorp	7,000	205,625	225,750
Bowater Inc.	340,000	8,021,648	8,202,500
Bristol-Myers Squibb Co.	151,700	5,911,440	10,239,750
Broad, Inc.	10,900	199,808	286,125
Brush Wellman Inc.	588,900	8,466,932	9,054,338
CIGNA Corp.	200,500	9,438,868	11,754,313
Cadence Design Systems, Inc.	280,000	5,963,971	5,985,000
Calgon Carbon Corp.	380,000	6,045,286	6,697,500
Capital Holding Corp.	3,400	197,220	245,650
Carnival Cruise Lines, Inc.	250,000	6,927,247	8,187,500
Carpenter Technology Corp.	56,000	2,634,860	2,856,000
Caterpillar Inc.	200,000	9,357,438	10,725,000
Charter One Financial, Inc.	10,500	204,750	315,000
Chase Manhattan Corp.	8,700	206,222	247,950
Chemical Banking Corp.	6,100	199,893	235,613

	Shares Held	Cost	Market Value
Chevron Corp.	150,000	$ 7,230,097	$ 10,425,000
Cincinnati Gas & Electric Co.	375,000	7,631,433	9,328,125
Collective Bancorp, Inc.	13,066	204,927	372,381
Comerica Inc.	6,702	395,353	428,928
Community Psychiatric Centers	13,700	201,048	140,425
COMPAQ Computer Corp.	281,300	9,765,333	13,713,375
Computer Associates International, Inc.	703,400	5,856,730	14,243,850
Conner Peripherals, Inc.	9,900	200,345	205,425
Consolidated Edison Co. of New York, Inc.	305,000	8,269,302	9,950,625
Cooper Industries, Inc.	300,000	7,043,754	14,212,500
Cross (A.T.) Co.	200,000	5,037,000	3,850,000
Delta Air Lines, Inc.	56,000	3,011,748	2,849,000
Deluxe Corp.	240,000	7,938,431	11,220,000
Dexter Corp.	300,000	6,532,833	7,762,500
Digital Communication Associates, Inc.	9,100	206,105	166,075
Digital Equipment Corp.	148,000	8,504,754	4,995,000
Dominion Resources Inc.	180,000	5,883,700	7,110,000
Dover Corp.	200,000	7,906,748	9,175,000
Dow Chemical Co.	162,600	9,884,681	9,308,850
Dow Jones & Co., Inc.	100,000	2,758,660	2,700,000
Dresser Industries, Inc.	731,000	9,137,436	13,158,000
Du Pont (E.I.) De Nemours & Co.	190,000	8,629,176	8,953,750
Dun & Bradstreet Corp.	200,000	9,508,897	11,550,000
EG&G, Inc.	461,700	8,858,769	9,060,863
Eastman Kodak Co.	245,000	9,921,418	9,922,500
Ecolab Inc.	93,000	2,753,165	3,417,750
Emerson Electric Co.	200,000	5,701,234	11,000,000
Enron Corp.	200,000	7,300,000	9,275,000
ENSERCH Corp.	500,000	9,407,371	7,062,500
Entergy Corp.	230,000	5,552,502	7,590,000
Exxon Corp.	175,000	8,896,379	10,696,875
1st Bank System Inc.	7,400	200,683	208,125
First Security Corp.	8,850	199,125	243,375
First Tennessee National Corp.	6,300	201,600	231,525
First Union Corp.	255,800	7,215,812	11,159,275
Firstar Corp.	8,000	201,588	252,000
Firstfed Michigan Corp.	12,400	200,975	286,750
Ford Motor Co.	220,000	7,480,535	9,432,500
GTE Corp.	300,000	8,889,321	10,387,500
Gannett Co., Inc.	150,000	5,985,319	7,612,500
Gap, Inc.	175,000	6,577,517	5,775,000
General Electric Co.	140,000	9,149,150	11,970,000
General Motors Corp.	270,100	10,014,372	8,710,725
General Re Corp.	85,000	7,410,362	9,838,750
General Signal Corp.	200,000	8,851,688	12,200,000
Genuine Parts Company	300,000	9,510,017	10,200,000
Gibson Greetings Inc.	7,000	200,650	131,250
Great Western Financial Corp.	10,800	200,003	189,000
Halliburton Co.	370,000	10,575,518	10,637,500
Handleman Co.	99,400	1,244,519	1,404,025
Harnischfeger Industries Inc.	9,700	204,472	192,788
Hewlett-Packard Co.	125,000	6,615,910	8,734,375
Humana Inc.	275,000	8,333,265	5,637,500
Illinois Power Co.	300,000	6,832,713	6,637,500
Ingersoll-Rand Co.	494,600	9,927,888	14,405,225

	Shares Held	Cost	Market Value
Inland Steel Industries, Inc.	100,000	$ 2,166,650	$ 2,262,500
Integra Financial Corp.	6,000	198,250	249,750
Intel Corp.	205,000	7,102,453	17,835,000
Johnson & Johnson	282,000	4,771,476	14,241,000
Kemper Corp.	200,000	7,011,196	5,925,000
Keycorp	6,300	199,048	243,338
Keystone International, Inc.	400,000	11,157,615	10,050,000
Knight-Ridder, Inc.	94,800	4,228,208	5,498,400
Laidlaw Inc. C1-B Non	590,000	8,514,571	5,310,000
Leggett & Platt Inc.	200,000	4,461,825	6,800,000
Lilly (Eli) & Co.	100,000	7,412,275	6,075,000
Lincoln National Corp.	65,000	3,639,287	4,810,000
M/A-Com, Inc.	400,000	2,401,108	1,950,000
MBIA Inc.	94,000	4,541,443	5,969,000
MBNA Corp.	5,000	200,113	248,125
MCI Communications Corp.	207,000	7,223,941	8,202,375
MCN Corp.	150,000	3,595,346	4,631,250
Marsh & McLennan Cos., Inc.	130,000	9,872,524	11,878,750
Medco Containment Service	75,000	2,154,148	2,831,250
Melville Corp.	150,000	5,147,359	7,968,750
Mentor Graphics Corp.	200,000	2,897,497	1,625,000
Merck & Co., Inc.	270,000	3,151,996	11,711,250
Metropolitan Financial Corp.	17,000	204,325	282,625
Michigan National Corp.	4,300	201,375	220,375
Minnesota Mining & Manufacturing Co.	70,000	4,617,289	7,043,750
Mobil Corp.	150,000	7,135,979	9,468,750
Morrison Knudsen Corp.	330,000	7,128,191	7,136,250
Motorola Inc.	90,000	4,161,595	9,405,000
Nalco Chemical Co.	346,900	8,091,135	12,011,413
National City Corp.	5,000	200,550	248,125
National Medical Enterprises	564,000	7,801,874	6,979,500
NationsBank Corp.	4,400	197,970	226,050
Navistar International Corp.	1,000,000	3,499,031	2,250,000
Norwest Corp.	230,400	5,781,676	9,936,000
Ohio Casualty Corp.	3,600	201,150	227,250
Old Kent Financial Corp.	7,500	199,700	254,063
Old Republican International Corp.	10,200	201,755	253,725
ONBANCorp Inc.	9,500	199,500	304,000
Oregon Steel Mills, Inc.	300,000	6,787,863	7,650,000
PPG Industries, Inc.	150,000	8,031,011	9,881,250
Pacificorp	400,000	8,498,527	7,900,000
Parker-Hannifin Corp.	130,600	4,124,677	3,869,025
Procter & Gamble Co.	200,000	9,725,774	10,725,000
Protective Life Corp.	8,800	211,975	268,400
Public Service Co. of Colo.	365,000	8,823,798	10,448,125
Raytheon Co.	200,000	8,332,424	10,250,000
Reebok International Ltd.	150,000	4,034,388	5,100,000
Rexon Inc.	18,600	215,449	188,325
Rite Aid Corp.	325,000	7,287,964	6,946,875
Rohm & Haas Co.	200,000	8,481,350	10,700,000
Royal Dutch Petroleum Co.	120,000	6,307,662	9,720,000
SCEcorp	195,900	7,029,967	8,619,600
SFFed Corp.	18,600	209,250	211,575
Safeco Corp.	4,100	199,250	234,725
St. Paul Bancorp, Inc.	13,100	204,424	301,300

	Shares Held	Cost	Market Value
Schering-Plough Corp..	225,000	$ 13,472,843	$ 14,315,625
Schlumberger Ltd.	137,000	9,028,720	7,843,250
Shared Medical Systems Corp.	325,000	6,673,444	7,271,875
Sherwin-Williams Co.	400,000	7,760,912	12,250,000
Skyline Corp.	175,000	2,942,378	3,696,875
Snap-On Tools Corp.	225,000	7,476,942	7,059,375
Society Corporation	3,600	202,500	231,300
Somatogen, Inc.	11,150	374,069	220,213
Sonat Inc.	300,000	15,465,642	14,437,500
Sprint Corp.	340,000	9,828,578	8,670,000
Standard Federal Bank	10,000	201,063	232,500
Sundstrand Corp.	200,000	6,496,119	8,050,000
Texaco Inc.	125,000	7,580,870	7,468,750
Thomas & Betts Corp.	200,000	10,978,626	13,100,000
Toys 'R' Us, Inc.	260,000	4,615,595	10,432,500
UAL Corp.	27,000	3,046,332	3,405,375
U.S. Bancorp	8,800	202,900	232,100
U S WEST, Inc.	200,000	5,818,276	7,675,000
Union Camp Corp.	206,900	8,891,599	9,543,263
Union Pacific Corp.	237,200	7,997,563	13,876,200
United Technologies Corp.	225,000	10,560,533	10,828,125
Unocal Corp.	140,000	2,330,342	3,570,000
Vulcan Materials Co.	110,000	4,180,176	5,307,500
Wachovia Corp. (New)	150,000	8,408,098	10,237,500
Westvaco Corp.	150,000	5,092,902	5,175,000
Whirlpool Corp.	230,000	6,594,460	10,263,750
Williams Companies, Inc. (The)	400,000	15,013,889	15,700,000
Yellow Freight System, Inc. of Delaware	225,000	6,396,875	6,159,375
Total actively managed fund	34,085,668	$ 960,498,574	$ 1,166,432,352
Total domestic stocks	127,099,933	$ 3,769,420,874	$ 4,757,084,818

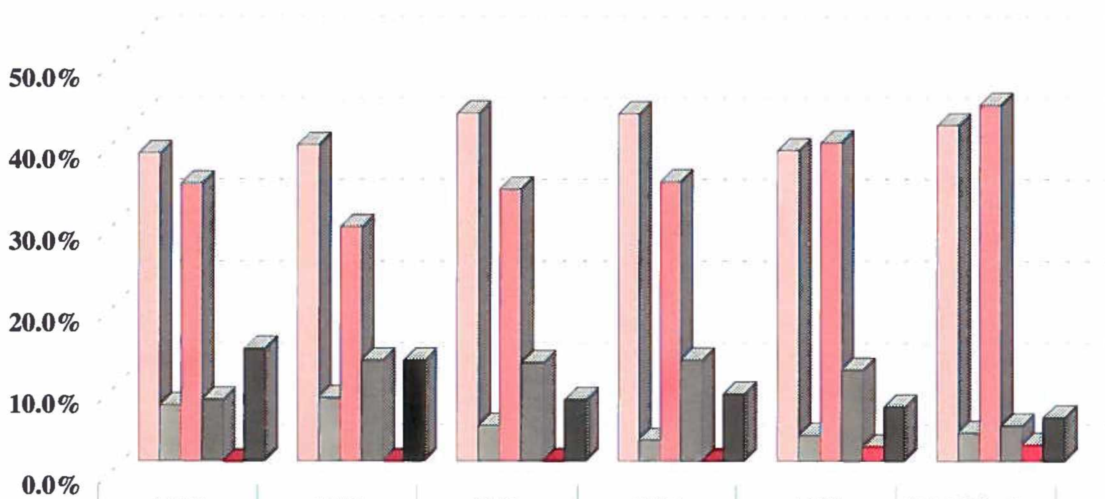
Investment Brokers/Advisors

A.G. Edwards
Robert W. Baird & Co.
George K. Baum, & Co.
Bear Stearns & Co., Inc.
Alex Brown & Sons Inc.
Chicago Corp.
Dain Bosworth
Dean Witter Reynolds, Inc.
Dillon Read & Co.
Donaldson Lufkin & Jenrette
First Boston Corp.
Fuji Securities Inc.
Goldman Sachs & Co.
Hanifen, Imhoff Inc.
Heitman Advisory Corp.
Instinet Corp.
Kidder, Peabody & Co., Inc.
La Salle Advisors Ltd.
Lehman Brothers Inc.
Lehndorff and Babson
Lynch Jones & Ryan
Merrill Lynch & Co., Inc.
Oppenheimer & Co., Inc.
Paine Webber Inc.
Piper Jaffray Inc.
Prudential Realty Investors
Prudential Securities Inc.
Salomon Brothers, Inc.
Smith Barney
Stifel Nicholaus & Co., Inc.
W.G. Trading Co.
W.G. Warburg

Externally Managed Equities & Fixed Income Assets

	Cost	Market Value
Domestic stock managers:		
Denver Investment Advisors	$ 94,925,724	$ 119,985,553
Janus Capital Corp.	84,024,585	101,780,102
United Capital Management	105,447,367	104,180,183
Total	$ 284,397,676	$ 325,945,838
International stock managers:		
Alliance Capital Management Corp.	$ 265,706,528	$ 236,583,212
Baring International Investment Ltd.	135,000,000	180,967,137
Brinson Partners, Inc.	193,540,026	194,677,373
Dunedin Fund Managers Ltd.	103,683,527	96,987,117
Morgan Grenfell Asset Management	161,348,337	159,455,435
Nomura Capital Management, Inc.	155,373,130	163,149,963
Philippe Investment Management, Inc.	164,261,010	161,216,584
Schroder Capital Management International	100,000,000	97,875,723
Total	$ 1,278,912,558	$ 1,290,912,544
Domestic bond managers:		
Fischer Francis Trees & Watts	$ 217,549,414	$ 215,994,188
LM Capital Management	26,180,730	28,022,895
NCM Capital Management	27,862,894	28,582,655
Trust Company of the West	69,654,565	69,718,977
Total	$ 341,247,603	$ 342,318,715
International bond manager:		
Julius Baer Investment Management	$ 225,605,000	$ 223,121,000
Total externally managed equities and fixed income assets	$ 2,130,162,837	$ 2,182,298,097

Average Percent of Asset Allocation



	1988	1989	1990	1991	1992	1992 Median
Domestic Bonds	37.7%	38.7%	42.6%	42.5%	38.0%	41.1%
Cash & Equivalents	6.9%	7.8%	4.4%	2.6%	3.2%	3.5%
Domestic Stocks	34.0%	28.7%	33.3%	34.2%	39.0%	43.6%
International Stocks	7.6%	12.4%	12.1%	12.4%	11.2%	4.4%
International Bonds					1.8%	2.0%
Other Assets	13.8%	12.4%	7.6%	8.3%	6.7%	5.4%

"Destiny is not a matter of chance, it is a matter of choice. It is not a thing to be waited for, it is a thing to be achieved."

– William Jennings Bryan, American lawyer and politician, 1860-1925

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 21, 1993

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, expressed as percents of active member payroll, will remain approximately level from generation to generation of Colorado citizens.

Progress toward this fundamental objective is measured by means of annual actuarial valuations which (1) determine present financial position, and (2) test the adequacy of established contribution rates. The latest completed actuarial valuations were based upon data and assumptions as of December 31, 1992. Those 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 after consulting with the actuary. We believe those assumptions produce results which are reasonable.

Based upon the valuation results, it is our opinion that the Public Employees' Retirement Association of Colorado continues in sound condition in accordance with actuarial principles of level cost financing.

Sincerely,

Gene H. Wickes, 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 other 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 annual level 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 was changed in 1992 from "book" to a method 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 independent actuary. The assumptions, which are reviewed in depth every five years, are used to project the plan's future experience.

Economic Assumptions

The actuarial investment assumption rate used in making the valuations was increased in January 1992 from 7.5 to 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 and C. 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 new mortality table (Colorado Projected Experience Table - 90) was adopted in 1992 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.

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 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

	Percent of Members Separating Within the Next Year						*Pay Increase Assumptions for an Individual Member*		
	Withdrawal		Death		Disability				
Sample Ages	Men	Women	Men	Women	Men	Women	Merit & Seniority	Base (Economy)	Increase Next Year
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

	Percent of Members Separating Within the Next Year						*Pay Increase Assumptions for an Individual Member*		
	Withdrawal		Death		Disability				
Sample Ages	Men	Women	Men	Women	Men	Women	Merit & Seniority	Base (Economy)	Increase Next Year
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

	Percent of Members Separating Within the Next Year						*Pay Increase Assumptions for an Individual Member*		
	Withdrawal		Death		Disability				
Sample Ages	Men	Women	Men	Women	Men	Women	Merit & Seniority	Base (Economy)	Increase Next Year
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*		
	Withdrawal		Death		Disability				
Sample Ages	Men	Women	Men	Women	Men	Women	Merit & Seniority	Base (Economy)	Increase Next Year
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					
	Withdrawal		Death		Disability	
Sample Ages	Men	Women	Men	Women	Men	Women
30	2.00%	2.00%	0.08%	0.05%	0.06%	0.06%
35	2.00%	2.00%	0.11%	0.07%	0.07%	0.07%
40	2.00%	2.00%	0.16%	0.09%	0.10%	0.10%
45	2.00%	2.00%	0.29%	0.14%	0.17%	0.17%
50	2.00%	2.00%	0.53%	0.22%	0.31%	0.31%
55	2.00%	2.00%	0.72%	0.29%	0.56%	0.56%
60	2.00%	2.00%	0.91%	0.44%	1.19%	1.19%
65	2.00%	2.00%	1.42%	0.77%	0.00%	0.00%

Pay Increase Assumptions for an Individual Member

Merit & Seniority	Base (Economy)	Increase Next Year

Judicial Division pay increases are determined by the Colorado Legislature.

Exhibit E

	Percent of Members With Less Than Five Years of Service Withdrawing from Employment Next Year					
	State Division (Excluding Troopers)		Municipal Division		School Division	
Years of Service	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 $1.00 Monthly for Life: Men	Present Value of $1.00 Monthly for Life: Women	Present Value of $1.00 Mo. the First Year Increasing $.04 Yearly: Men	Present Value of $1.00 Mo. the First Year Increasing $.04 Yearly: Women	Future Life Expectancy (Years): Men	Future Life Expectancy (Years): Women
40	$135.42	$139.95	$188.38	$197.75	38.28	44.06
45	131.16	137.24	179.91	191.72	33.65	39.29
50	126.03	133.62	170.05	184.04	29.24	34.60
55	120.02	128.77	158.77	174.30	25.07	30.00
60	111.92	122.03	144.62	161.74	20.97	25.45
65	101.06	113.36	127.14	146.58	16.97	21.10
70	88.59	102.46	108.33	128.78	13.38	16.98
75	75.32	89.13	89.42	108.53	10.28	13.16
80	61.96	74.32	71.46	87.48	7.72	9.81
85	49.58	57.95	55.67	65.89	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
Under 53	— %	20%	— %	— %	— %
53	— %	25%	— %	— %	— %
54	— %	25%	— %	— %	— %
55	16%	25%	18%	16%	— %
56	16%	25%	18%	16%	— %
57	16%	25%	18%	16%	— %
58	16%	25%	18%	16%	— %
59	16%	25%	18%	16%	— %
60	17%	50%	20%	17%	15%
61	17%	60%	20%	17%	10%
62	17%	70%	20%	17%	10%
63	17%	80%	20%	17%	10%
64	17%	90%	20%	17%	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 and over	— %	— %	— %	— %	100%

Schedule of Retirees and Survivors by Type of Benefit

December 31, 1992

Division	Number of Benefit Recipients	Type of Benefit 1	2	3	4	5	6
State	16,686	12,962	2,806	86	755	77	1,035
School	19,417	16,425	2,105	45	727	115	1,964
Municipal	1,902	1,286	438	10	153	15	116
Judicial	183	148	16	0	18	1	7
Total	38,188	30,821	5,365	141	1,653	208	3,122

Division	Option Selected 1	2	3	4*	Surviving Cobeneficiary	Surviving Retiree
State	8,117	1,888	3,329	489	1,476	469
School	11,467	2,172	3,012	380	1,023	476
Municipal	739	241	429	55	212	48
Judicial	32	20	56	12	36	8
Total	20,355	4,321	6,826	936	2,747	1,001

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 to provide death benefits. 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
1983	92,346	$1,923,936,063	$20,979	7.16%
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% [2]

[1] Total of 365 employers in 1992.
[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 No.	Added to Payroll Annual Benefits	Removed from Payroll No.	Removed from Payroll Annual Benefits	Payroll—End of Year No.	Payroll—End of Year Annual Benefits	Cost of Living Stablilization Fund	Average Annual Benefits	Increase In Average Benefits
12/31/83	2,202	$21,365,407	736	$3,048,446	23,522	$125,899,802	$38,624,028	$6,994	4.6%
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%

*Numbers derived on an accrual basis.

Member-Retiree Comparison[1]

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

[1] Numbers derived on a cash basis.
[2] Includes inactive members.

Members in Valuation

By Attained Age and Years of Service — 12-31-92

State Division

Members included in the State Division valuation totaled 49,929 and involved annual salaries totaling $1,420,757,514. 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 41.0 years, and the average service was 12.8 years.

	Years of Service to Valuation Date							*Totals*	
Attained Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30+**	**No.**	**Valuation Payroll**
Under 20	498							498	$ 1,559,034
20-24	1,593	13						1,606	17,605,758
25-29	3,090	399	23					3,512	66,569,053
30-34	3,965	1,371	436	23				5,795	139,015,043
35-39	5,472	1,873	1,185	445	12			8,987	223,147,732
40-44	4,293	2,008	1,465	1,187	265	8		9,226	279,544,573
45-49	2,925	1,561	1,225	1,125	825	208	9	7,878	264,879,033
50-54	1,704	1,011	817	757	832	515	145	5,781	205,167,200
55-59	1,029	549	511	537	486	445	164	3,721	132,463,241
60	142	85	83	94	81	60	26	571	19,813,995
61	132	76	82	86	58	31	24	489	15,984,429
62	118	60	68	61	48	41	18	414	13,703,190
63	91	63	71	69	52	23	15	384	13,108,343
64	68	34	41	40	27	17	12	239	7,151,672
65	59	28	34	36	29	13	15	214	6,611,561
66	58	20	20	17	15	16	7	153	4,411,305
67	37	11	13	17	15	6	6	105	2,946,382
68	33	9	11	13	9	7	6	88	2,267,200
69	36	4	7	8	4	4	4	67	1,702,579
70+	127	17	15	19	9	5	9	201	3,106,191
Totals	25,470	9,192	6,107	4,534	2,767	1,399	460	49,929	$ 1,420,757,514

School Division

Members included in the School Division valuation totaled 76,669 and involved annual salaries totaling $1,754,969,071. The average age for School Division members was 42.5 years, and the average service was 7.3 years.

	Years of Service to Valuation Date							*Totals*	
Attained Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30+**	**No.**	**Valuation Payroll**
Under 20	488							488	$ 1,424,712
20-24	1,991	6						1,997	18,533,766
25-29	4,811	388	13					5,212	85,258,632
30-34	5,440	2,198	430	7				8,075	146,996,595
35-39	8,197	2,376	2,045	504	10			13,132	236,999,029
40-44	7,174	2,932	2,296	2,505	564			15,471	376,948,387
45-49	4,884	2,678	2,092	2,007	2,095	323		14,079	398,256,220
50-54	2,436	1,493	1,561	1,324	1,333	1,061	180	9,388	280,979,996
55-59	1,468	748	917	946	630	458	262	5,429	145,042,477
60	250	87	109	116	71	45	32	710	16,300,492
61	169	84	75	93	49	25	20	515	11,325,004
62	156	66	62	79	51	21	19	454	10,028,809
63	136	65	68	71	41	12	13	406	8,282,802
64	109	38	31	50	17	9	10	264	4,740,831
65	110	29	38	30	21	14	8	250	4,278,614
66	101	24	26	12	14	7	10	194	2,917,734
67	69	21	20	14	10	5	3	142	1,987,831
68	69	15	14	14	5	1	2	120	1,565,726
69	42	13	10	4	6	4		79	1,000,839
70+	191	20	22	13	10	5	3	264	2,100,575
Totals	38,291	13,281	9,829	7,789	4,927	1,990	562	76,669	$ 1,754,969,071

By Attained Age and Years of Service — 12-31-92

Municipal Division

Members included in the Municipal Division valuation totaled 10,052 and involved annual salaries totaling $244,327,041. The average age for Municipal Division members was 38.8 years, and the average service was 5.5 years.

	Years of Service to Valuation Date							*Totals*	
Attained Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30+**	**No.**	**Valuation Payroll**
Under 20	384							384	$ 834,878
20-24	696	5						701	6,050,927
25-29	797	87	4					888	17,765,639
30-34	1,215	367	134	7				1,723	39,503,403
35-39	984	407	277	86	1			1,755	47,318,487
40-44	825	349	284	171	72	2		1,703	50,188,051
45-49	493	235	195	153	108	38		1,222	37,226,100
50-54	271	116	134	97	72	59	10	759	22,040,518
55-59	181	60	91	70	50	44	18	514	14,485,828
60	15	6	10	12	6	6	2	57	1,772,855
61	13	14	9	9	7	2	2	56	1,730,057
62	18	5	10	8	6	3	1	51	1,259,815
63	21	8	4	6	5	1	3	48	1,080,309
64	12	9	1	8	1	1	2	34	811,280
65	16	7	6	3	1	1	1	35	710,476
66	15	3	1	3	1		1	24	327,158
67	9	3	1	4	1			18	324,921
68	10	3	2		2		1	18	221,416
69	11	4	2					17	144,410
70+	29	6	4	4	1		1	45	530,513
Totals	6,015	1,694	1,169	641	334	157	42	10,052	$ 244,327,041

Judicial Division

Members included in the Judicial Division valuation totaled 248 and involved annual salaries totaling $16,639,874. The average age for Judicial Division members was 50.7 years, and the average service was 10.3 years.

	Years of Service to Valuation Date							*Totals*	
Attained Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30+**	**No.**	**Valuation Payroll**
30-34	3							3	$ 103,047
35-39	5	3						8	456,090
40-44	23	20	7	3				53	3,352,854
45-49	12	21	20	6	2			61	4,114,803
50-54	3	14	17	15	3			52	3,670,839
55-59	4	1	6	7	5	1	1	25	1,672,710
60	1	1		2	2			6	462,069
61	3	1	1	1	1	1		8	615,127
62		1	1	2				4	293,470
63			2	2				4	318,640
64			3	1	1	1		6	342,528
65	1	1	1					3	177,106
66	1		1					2	101,068
67				1	1			2	167,216
68		1	2		1	1		5	322,661
69		1	1	1	1			4	309,814
70+				1	1			2	159,832
Totals	56	65	62	42	18	4	1	248	$ 16,639,874

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)
12/31/83	$ 843,058,135	$ 1,505,814,909	$2,751,961,085	$3,752,861,340	100%	100%	51.0%
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%

*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.

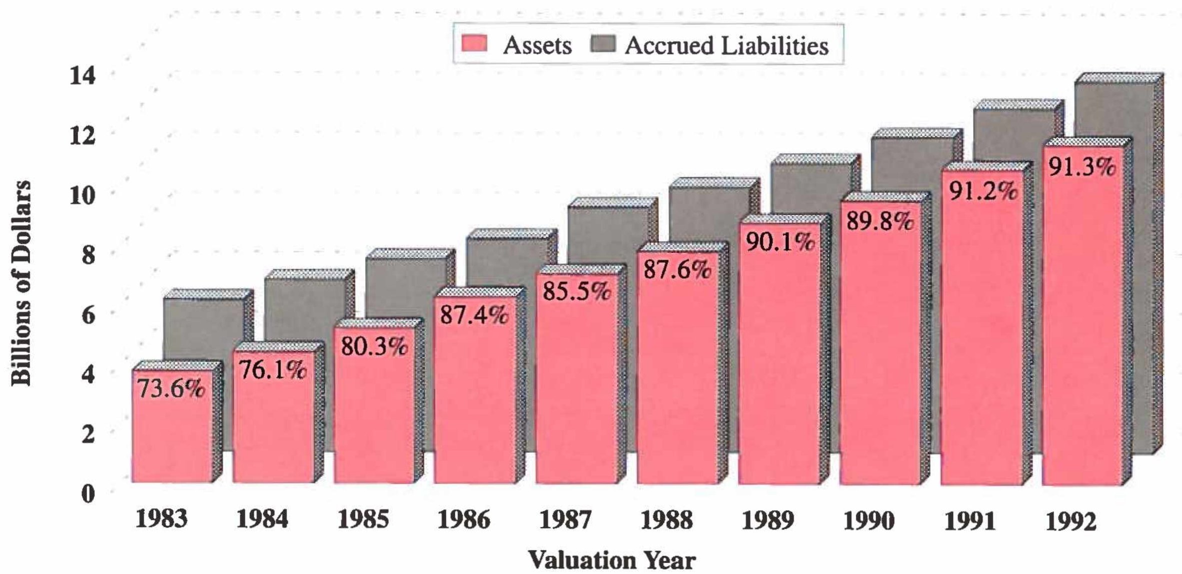
While no one or two measures can fully describe the financial condition of the plan, unfunded actuarial accrued liability dollars divided by member salary dollars provide a meaningful index. The smaller the ratio, the stronger the system. Observation of this relative index over a period of years will 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
12/31/83	$5,100,834,129	$3,752,861,340	73.6%	$1,347,972,789	$1,923,936,078	70.1%
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%

Assets as a Percent of Accrued Liabilities Graph 1983-1992



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	**1992**	**1991**	**1990**	**1989**	**1988**
Age and service retirements	$ (11.3)	$ (5.0)	$ (4.80)	$ (6.50)	$ (4.90)
Disability retirements	(6.2)	(6.1)	(4.80)	(3.90)	(2.20)
Death-in-service benefits	2.9	4.9	(0.20)	4.20	6.00
Withdrawal from employment	(109.2)	(119.9)	(96.80)	(46.70)	(28.50)
Pay increases	149.3	71.3	63.10	66.70	152.30
Investment income	(76.4)	161.8	(53.60)	223.50	85.00
Other	(71.4)	(15.2)	0.70	(49.70)	(69.40)
Gain (or loss) during year from financial experience	(122.3)	91.8	(96.40)	187.60	138.30
Non-recurring items*	71.7	(8.1)	(11.10)	(22.70)	(27.00)
Composite gain (or loss) during year	$ (50.6)	$ 83.7	$ (107.50)	$ 164.90	$ 111.30

*Non-recurring items include changes due to 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	8.35%	9.19%	7.77%	12.92%
Disability retirements	1.55%	1.39%	1.51%	0.91%
Survivor benefits	0.60%	0.48%	0.56%	1.51%
Future refunds	3.61%	2.98%	4.18%	1.48%
Total normal cost	14.11%	14.04%	14.02%	16.82%
Member contributions	8.06%[1]	8.00%	8.00%	8.00%[2]
Employer normal cost	6.05%	6.04%	6.02%	8.82%
Percentage available to amortize unfunded actuarial accrued liabilities	2.78%	2.76%	1.18%	3.38%
Amortization period	23 years	11 years	—	9 years
Total employer contribution rate for actuarially funded benefits	8.83%[1]	8.80%	7.20%	12.20%
Cost of living stabilization fund[3]	2.00%	2.00%	2.00%	2.00%
Health care fund[4]	0.80%	0.80%	0.80%	0.80%
Statutory employer contribution rate	11.63%[1]	11.60%	10.00%	15.00%

[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 provide ad-hoc increases to benefit recipients.

[4] Used to pay a portion of health care premiums for benefit recipients.

Schedule of PERA's Contribution Rate History

State Division			Member Contribution Rate (Percent of Payroll)	Employer Contribution Rate (Percent of Payroll)
Members (Other Than State Troopers)				
8-1-31	to	6-30-38	3.50%	0.00%
7-1-38	to	6-30-49	3.50%	3.50%
7-1-49	to	6-30-58	5.00%	5.00%
7-1-58	to	6-30-69	6.00%	6.00%
7-1-69	to	6-30-70	7.00%	7.00%
7-1-70	to	6-30-71	7.00%	8.00%
7-1-71	to	6-30-73	7.00%	8.50%
7-1-73	to	6-30-74	7.75%	9.50%
7-1-74	to	6-30-75	7.75%	10.50%
7-1-75	to	8-31-80	7.75%	10.64%
9-1-80	to	12-31-81	7.75%	12.20%
1-1-82	to	6-30-87	8.00%	12.20%
7-1-87	to	6-30-88	8.00%	10.20%
7-1-88	to	6-30-91	8.00%	12.20%
7-1-91	to	4-30-92	8.00%	11.60%
5-1-92	to	6-30-92	8.00%	5.60%*
7-1-92	to	12-31-92	8.00%	10.60%

School Division			Member Contribution Rate	Employer Contribution Rate
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	12-31-92	8.00%	11.60%

Municipal Division			Member Contribution Rate	Employer Contribution Rate
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	12-31-92	8.00%	10.00%

Judicial Division			Member Contribution Rate	Employer Contribution Rate
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	12-31-80	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	12-31-92	8.00%	15.00%

State Troopers			Member Contribution Rate (Percent of Payroll)	Employer Contribution Rate (Percent of Payroll)
7-1-45	to	6-30-69	7.00%	7.00%
7-1-69	to	6-30-70	8.00%	8.00%
7-1-70	to	6-30-71	8.00%	9.00%
7-1-71	to	6-30-73	8.00%	9.50%
7-1-73	to	6-30-74	8.75%	10.50%
7-1-74	to	6-30-75	8.75%	11.50%
7-1-75	to	12-31-81	8.75%	11.64%
1-1-82	to	6-30-87	9.00%	13.20%
7-1-87	to	6-30-88	9.00%	11.20%
7-1-88	to	6-30-89	9.00%	13.20%
7-1-89	to	4-30-92	12.30%	13.20%
5-1-92	to	6-30-92	12.30%	7.20%*
7-1-92	to	12-31-92	11.50%	12.20%

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

"The secret of success is constancy of purpose."

– Benjamin Disraeli, British Prime Minister, 1874-1880

STATISTICAL SECTION

Unaudited

*Schedule of Benefit Disbursements by Type**

(In Thousands of Dollars)

Year Ended	Retirement Benefits	Survivor Benefits	Contribution Refunds	Interest Paid	Health Care	Total
12/31/83	$ 150,378	$ 5,746	$ 28,843	$ —	$ —	$ 184,967
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

*Numbers are derived on accrual basis.

*Member and Benefit Recipient Statistics**

	State Division	School Division	Municipal Division	Judicial Division	Total
Active members - 12/31/92	49,929	76,669	10,052	248	136,898
Retirements during 1992:					
Disability retirements	197	234	39	1	471
Service retirements	702	1,320	68	8	2,098
Total	899	1,554	107	9	2,569
Retirement benefits:					
Total receiving retirement benefits on Dec. 31, 1991	15,190	17,286	1,638	157	34,271
Total retiring during 1992	899	1,554	107	9	2,569
Cobeneficiaries continuing after retiree's death	131	83	21	3	238
Returning to retirement rolls from suspension	6	8	1	0	15
Total	16,226	18,931	1,767	169	37,093
Retirees deceased during year	(538)	(454)	(53)	(6)	(1,051)
Retirees returning to work	(2)	(4)	0	0	(6)
Total receiving retirement benefits-12/31/92	15,686	18,473	1,714	163	36,036
Total retirement benefits payable on 12/31/92	$ 209,893,296	$ 237,299,484	$ 19,001,460	$ 3,073,716	$ 469,267,956
Average monthly benefit on 12/31/92	$ 1,115	$ 1,070	$ 924	$ 1,571	$ 1,085
Average monthly benefit for members retired during 1992	$ 1,375	$ 1,320	$ 1,135	$ 1,368	$ 1,332
Survivor benefit accounts:					
Total benefits being paid on 12/31/92	787	711	153	18	1,669
Total benefits payable on 12/31/92	$ 8,212,644	$ 6,373,320	$ 1,186,824	$ 260,940	$ 16,033,728
Deferred benefits:					
Deferred retirements to age 60 or 65	1,040	1,964	116	2	3,122
Total annual future benefits	$ 12,729,815	$ 18,788,515	$ 1,394,292	$ 15,347	$ 32,927,969
Future survivor beneficiaries	38	48	5	1	92
Total annual future benefits	$ 287,130	$ 195,747	$ 10,403	$ 29,043	$ 522,323

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

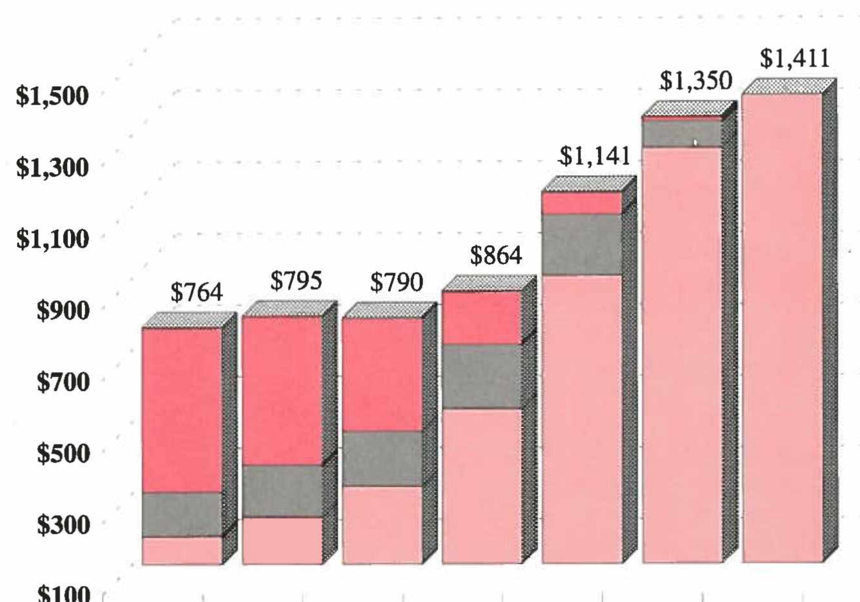
*Schedule of Average Retirement Benefits Payable**

Year Ended	Average Monthly Benefit	Average Age at Retirement	Average Current Age of Retirees	Average Years of Service at Retirement
12/31/83	$ 596	62.3	70.0	17.0
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

*Includes disability retirements, but not survivor benefits.

Average Monthly Benefit by Year of Retirement Graph

Service Retiree Accounts as of December 31, 1992



	1965	1970	1975	1980	1985	1990	1992
Benefit Due to Cost-of-Living Increases	$461	$417	$318	$150	$64	$13	$0
Benefit Due to Annual Increases	$124	$146	$154	$180	$171	$75	$0
Initial Benefit at Retirement	$179	$232	$318	$534	$906	$1,262	$1,411

Schedule of Affiliated Employers

State Division

Agencies and Instrumentalities

Colorado Association of School Boards
Colorado Compensation Insurance Authority
Colorado Council on Arts and Humanities
Colorado High School Activities Association
Colorado Lottery
Colorado State Fair
Colorado Student Loan Program
Colorado Uninsurable Health Insurance Plan[1]
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
Grand Junction Regional Center
Joint Budget Committee
Judicial Department
Legislative Council
Mental Health Institute of Ft. Logan
Mental Health Institute at Pueblo
Moffat Tunnel Commission
Office of the District Attorneys
Office of Energy Conservation
Office of the Governor
Office of Legislative Legal Services
Office of the Lieutenant Governor
Public Employees' Retirement Association
Pueblo Regional Center
Special District Association of Colorado
State Auditor's Office
State Historical Society
Wheat Ridge Regional Center

Institutions of Higher Education

Adams State College
Aims Community College
Arapahoe Community College
Auraria Higher Education Center
Aurora Community College
Colorado Advanced Technical 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] Affiliated in 1992.

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
East Central BOCES
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
Southeast Metropolitan BOCS (dissolved 6-30-92)
Southwest BOCS

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

Municipal Division

Alamosa Housing Authority
Aurora Housing Authority
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 Arvada[3]
City of Boulder
City of Colorado Springs
City of Fort Morgan
City of Lafayette[3]
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[1]
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
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[1]
Meeker Regional Library District
Memorial Hospital – Colorado Springs
Montrose Recreation District[1]
Morgan Soil Conservation District
Mountain View Fire Protection District
Mountain Village Metropolitan District
Mountain Water and Sanitation District
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
Red, White & Blue Fire Protection District
Rio Blanco Fire Protection District
Rio Blanco Water Conservancy District
Routt County Soil Conservation District
Sable-Altura Fire Protection District
San Miguel County Public Library
Sheridan Sanitation District #1[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[1]
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[1]
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 1992.
[2] Inactive affiliate.
[3] Disaffiliated in January 1993.

"Discovery is seeing what everybody else has seen, and thinking what nobody else has thought."

– Albert Szent-Gyorgi, Hungarian chemist, 1893-1986

OTHER PERA PROGRAMS SECTION

Unaudited

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.

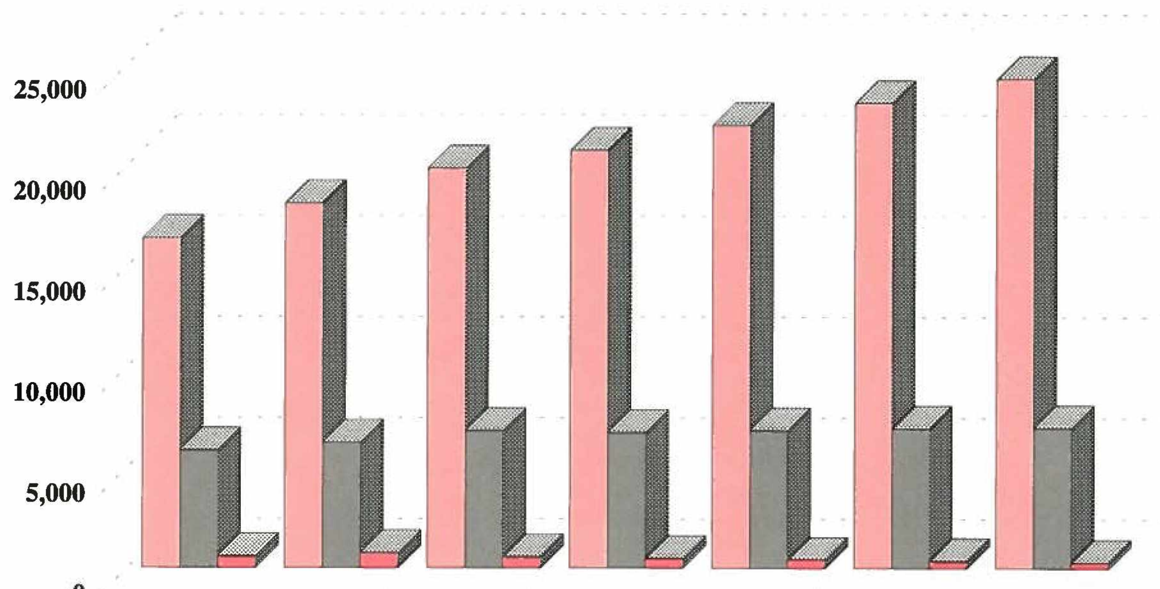
Under the Program, PERA subsidizes a portion of the monthly premium for health care coverage. The benefit recipient pays any remaining part of that premium through an automatic deduction from the monthly retirement benefit. In 1992, the maximum subsidy was $115 per month for benefit recipients whose 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.

In 1992, 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, 1992. 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



	1986	1987	1988	1989	1990	1991	1992
Insured	16,339	18,074	19,802	20,690	21,938	23,037	24,236
Spouse	5,835	6,215	6,812	6,724	6,825	6,918	6,966
Children	587	745	557	472	416	371	305

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
1983	18,242	12,298	—	30,540
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

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*
1983	$1,114,010	—	$ 447,706	—	—	—	$1,561,716	—
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

*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.

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

In 1992, members were able to invest up to 18 percent of their annual gross salary, to a maximum of $8,728 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, 1992, VIP had accumulated assets of $42,368,786 and 4,545 accounts.

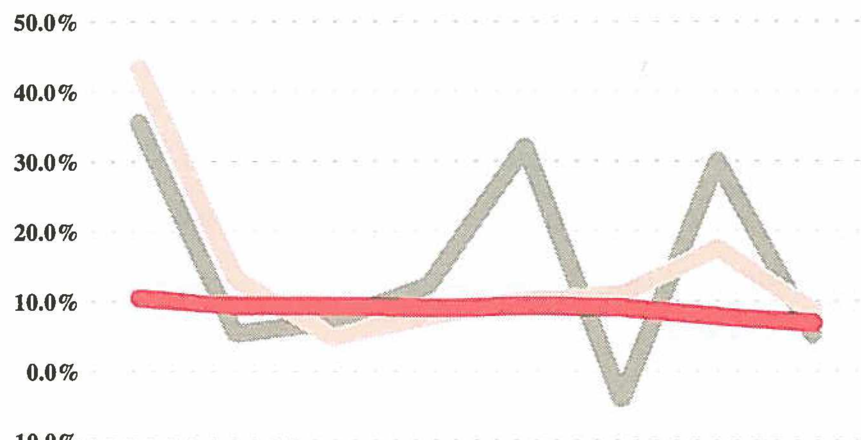
Year	Assets	Number of Accounts
1985 (July-Dec.)	$ 203,272	236
1986	1,750,673	902
1987	4,292,351	1,322
1988	7,975,075	1,596
1989	13,359,939	2,103
1990	19,242,631	2,594
1991	30,017,532	3,094
1992	42,368,786	4,545

1992 401(k) Fund Performance

Fund	Jan-Mar 1992	Apr-Jun 1992	July-Sept 1992	Oct-Dec 1992	Calendar Year 1992	Since Inception (7-1-85)
Short Term	1.7%	1.7%	1.7%	1.6%	6.8%	84.0%
Fixed Income	-2.8%	4.1%	6.2%	1.0%	8.5%	135.0%
Growth Stock	-2.4%	-4.5%	4.4%	8.0%	5.1%	152.3%

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



	1985*	1986	1987	1988	1989	1990	1991	1992
Short-Term Fund	10.5%	9.4%	9.4%	9.0%	9.3%	9.0%	7.8%	6.8%
Fixed Income Fund	43.3%	13.2%	4.9%	7.9%	10.1%	11.0%	17.5%	8.5%
Growth Stock Fund	35.5%	5.4%	7.2%	12.3%	32.0%	-4.0%	30.0%	5.1%

*July-December 1985

5/20 (REV 6-93) 2M