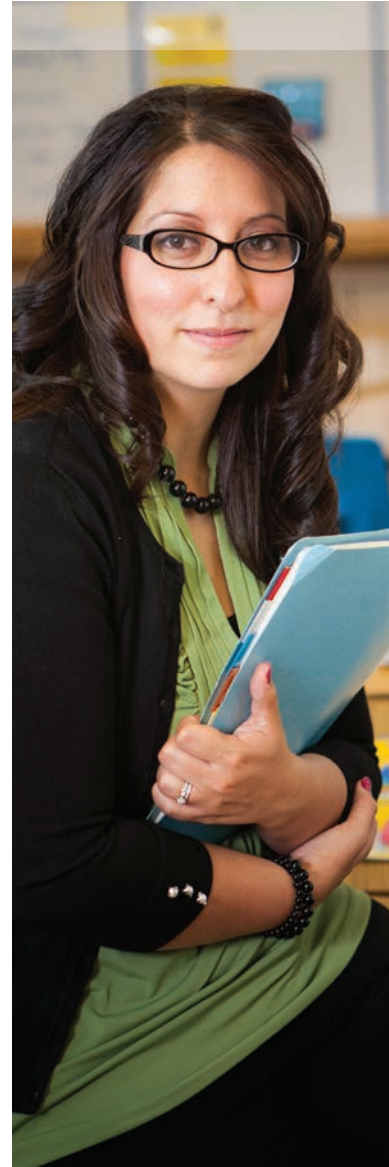


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**Colorado Public Employees' Retirement Association**  
**Comprehensive Annual Financial Report**  
*For the Year Ended December 31, 2012*  
Prepared by Colorado PERA Staff



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## Introductory Section



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## Letter of Transmittal



## Colorado Public Employees' Retirement Association

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1120 West 122nd Avenue, Westminster  
303-832-9550 • 1-800-759-PERA (7372)  
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June 25, 2013

## Dear Colorado PERA Members, Benefit Recipients, Employers, and Members of the Board of Trustees:

I am pleased to present Colorado PERA's *Comprehensive Annual Financial Report (CAFR)* for the fiscal year ended December 31, 2012.

PERA has long been considered an industry leader across many facets of our operation. In an era when most pension plans are underfunded, we were the first state pension plan in the nation to take the necessary steps to enact pension reform legislation—these reforms enacted in 2010 with Senate Bill (SB) 10-001 are working for the state of Colorado. The majority of legislators and other officials are committed to the full implementation of this landmark legislation.

However, we still have more work to do.

In this era of diminished retirement security, it's critical to understand what PERA does and the fiscal responsibilities required to be prepared for retirement. PERA has been communicating and educating its members for decades, but that's not enough. All Coloradans need to know about the value of PERA.

The current climate demands that we must communicate our message in a variety of channels and to a broader audience. For these reasons, the PERA Board of Trustees (Board) adopted a new communications strategy in 2012.

Implementation of the Strategic Communications Plan has become a cornerstone project in the day-to-day operations at PERA. The main components of this plan focus on the following:

- Use social media to develop a community of participants engaged in issues relevant to public employees and their financial and retirement security.
- Outreach to PERA employers to foster communications and employer understanding.
- Educate the business community on the importance and impact of PERA on every Main Street and in every county across Colorado.

These communication strategies are designed to educate not only our own members, but to also enlighten and inform Colorado citizens who may not know about the importance of PERA to the state's economy. Every year, PERA pays out more than \$3.5 billion in retirement distributions and its investment portfolio includes over \$485 million in Colorado-based businesses. These retirement payments and investments support local businesses, create Colorado jobs, and generate hundreds of millions of dollars in state and local tax revenue.

Prior to executing our Strategic Communications Plan, we surveyed our members to help us determine the issues most important to them as PERA members—91 percent of those surveyed were proud of their background as public employees and believed it was an important and valued part of who they are.

At PERA, we are also proud of the public servants whom we serve. We will continue to work for all of the public employees across the state and provide a plan that benefits everyone—not only for today's retirees, but also those just starting careers in public service, and those yet to be hired.

Together, we are Coloradans working to build a stronger Colorado.

## Report Contents and Structure

This *CAFR* is designed to comply with the reporting requirements under Title 24, Article 51, Section 204(8) of the Colorado Revised Statutes.

The compilation of this *CAFR* reflects the combined efforts of PERA staff and is the responsibility of PERA management. 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.

## Overview of Colorado PERA

Established in 1931, PERA operates by authority of the Colorado General Assembly and is administered under Title 24, Article 51, of the Colorado Revised Statutes. Initially covering all State employees, PERA has expanded to include all Colorado school districts, the State's judicial system, and many municipalities and other local government entities.



**Gregory W. Smith**  
*Executive Director*

## Letter of Transmittal

### Legislation

During the 2012 legislative session, a record number of bills were introduced which would have impacted PERA. The Board takes positions on legislation affecting PERA based on its fiduciary responsibility to act in the best interests of its membership.

#### *Senate Bill 12-016: Local Government Option to Change PERA Contribution Rates*

This bill would have allowed any PERA employer in the Local Government Division to vote to increase member contribution rates by up to 2.5 percent of salary, and to decrease employer contribution rates by the same percentage, effective January 1, 2013.

The Board voted to oppose SB 12-016; the bill was postponed indefinitely by the Senate State, Veterans, and Military Affairs Committee.

#### *Senate Bill 12-082: PERA Retirement Age Same as Social Security*

SB 12-082 would have required that age requirements for receiving PERA benefits match the age requirements for receiving Social Security benefits for any new PERA member hired on or after January 1, 2013.

The Board voted to oppose SB 12-082; the bill was postponed indefinitely by the Senate Finance Committee.

#### *Senate Bill 12-084: PERA Elected Officials Records*

Current law provides that all information contained in records of active members, former members, inactive members, and benefit recipients, as well as records of participants in PERA defined contribution (DC) plans, be kept confidential by PERA. This bill would have made an exception to current law and require PERA to publicly disclose certain PERA information regarding individual elected officials and cabinet-level appointees of elected officials on a yearly basis. Information to be reported would have included the member's name, each position held during employment with a PERA employer, the annual salary paid for each position, the employer and employee contributions paid on that salary, age of retirement, Highest Average Salary (HAS), and amount of any benefits paid by PERA.

The Board voted to oppose SB 12-084; the bill was postponed indefinitely by the Senate Finance Committee.

#### *Senate Bill 12-119: PERA Fiscal Sustainability*

This bill would have required the Board to reduce benefit provisions when the amortization period for any Division exceeds 30 years. The Board would have been required to make changes to the provisions for service credit, service retirement, benefit amounts, and annual increases in order to bring the affected Division back within a 30-year amortization period within one year of implementing the adjustments. The bill would have also prohibited the Board and the General Assembly from increasing member and employer contributions, the Amortization Equalization Disbursement (AED), or Supplemental Amortization Equalization Disbursement (SAED) amounts above the rates allowed by law as of December 31, 2011.

The Board voted to oppose this bill; SB 12-119 was postponed indefinitely by the Senate Finance Committee.

#### *Senate Concurrent Resolution 12-004: PERA Records*

This resolution asked legislators to put on the November 2012 ballot a change to the Colorado Constitution that would have made "all publications, documentations, communications, and other materials" at PERA open records to be available for inspection by any person. In

order to be placed on the ballot, it would have required a two-thirds vote of both the Senate and the House.

Senate Concurrent Resolution 4 was postponed indefinitely by the Senate State, Veterans, and Military Affairs Committee. The Board voted to oppose this resolution.

#### *House Bill 12-1142: PERA Employee Defined Contribution Plan Choice*

House Bill (HB) 12-1142 would have expanded to all members the option currently available to certain State Division employees to participate in the PERA DC plan in lieu of the PERA defined benefit (DB) plan. An amended version of the bill would have applied only to newly hired members.

HB 12-1142 was postponed indefinitely by the House Appropriations Committee. The Board voted to oppose the original, unamended version of the bill.

#### *House Bill 12-1150: Highest Average Salary Calculation*

This bill would have changed the HAS calculation from three years to seven years for members who are eligible for a full or reduced service retirement on or after January 1, 2013. Amended versions of the bill would have applied these changes only to non-vested (those with less than five years of service credit) and newly hired members of a PERA employer.

The Board voted to oppose the original, unamended version of the bill. HB 12-1150 was postponed indefinitely by the Senate Finance Committee.

#### *House Bill 12-1179: Composition of PERA Board*

This bill would have replaced four of the elected positions on the Board with four Governor-appointed Trustees approved by the Senate. When fully implemented, seven Trustees would have been elected by PERA members/benefit recipients and seven Trustees would have been Governor appointees. The State Treasurer would have remained on the Board as a voting member as well as a non-voting member or retiree from the Denver Public Schools (DPS) Division.

The Board voted to oppose the bill; HB 12-1179 was postponed indefinitely by the House Finance Committee.

#### *House Bill 12-1245: Health Care Options for Government Employees*

HB 12-1245 would have established a 13-member task force to study how the combined buying power of State and local governments might be leveraged for the purchase of employee health care benefits and other issues. The task force would have looked at ways to control costs while improving outcomes. A representative from PERA would have been one of the 13 members on the task force.

HB 12-1245 was postponed indefinitely by the House State, Veterans, and Military Affairs Committee. The Board did not take a position on this bill.

#### *House Bill 12-1250: PERA Health Care Trust Fund Employer Contributions*

This bill would have eliminated the premium subsidy for PERACare participants age 65 and over, beginning January 1, 2013. This proposed legislation would have impacted about 37,000 retirees who receive a subsidy. Eliminating the subsidy would have resulted in a premium increase of up to \$115 each month for these Medicare-eligible retirees. A provision of this bill would have made about 42,000 beneficiaries and their dependents, who are eligible for Medicare coverage, ineligible to participate in PERACare. It would have forced them to

## Letter of Transmittal

find health care insurance on their own at substantially increased costs. The bill also would have removed the provision from law allowing PERACare participants, who do not qualify for premium-free Medicare Part A coverage, to pay the same PERACare premiums as those who do have Part A coverage. In addition, retirees over age 65 who do not qualify for Medicare Part A would be subject to penalties for not enrolling in Part A when they turned 65.

The Board voted to oppose this bill; HB 12-1250 was postponed indefinitely at the request of the bill sponsor.

### Ballot Initiatives

On March 9, 2012, three ballot initiatives were filed with the Colorado Secretary of State that would have affected PERA. The proponents of these initiatives titled them “PERA Reform” initiatives. As drafted, they would have made significant changes to PERA benefits, including terminating the defined benefit program and moving all members to a defined contribution plan. In addition, all records contained at PERA, including those currently required to be kept confidential by statute, would have been open for public inspection.

As part of the initiative process, the proponents were given comments and feedback by Legislative Legal Services and Legislative Council staff regarding the draft initiatives. Following the Review and Comment Hearing on these initiatives, the proponents chose to only proceed with the initiative that would have impacted access to confidential member information.

At the Title Board hearing on April 18, 2012, the Title Board declined to set a title for the remaining initiative, which meant that the initiative could not proceed in the process to ultimately be placed on the ballot for voter approval. The proponents did not seek a rehearing regarding the Title Board’s determination; therefore, no initiatives affecting PERA were placed on the November 2012 ballot.

### Lawsuit Regarding Senate Bill 10-001

Shortly after SB 10-001 was signed into law, a civil action was filed in Denver District Court (*Justus, et al. v. State of Colorado, et al.*). The plaintiffs, who claim to be acting on behalf of a class of individuals, allege that a portion of SB 10-001 is unconstitutional. The civil action challenges the portion of SB 10-001 which modifies the annual increase payable to existing PERA retirees and in the future to PERA members who were eligible to draw retirement benefits as of the effective date of the bill. On June 29, 2011, the Denver District Court ruled in favor of PERA and the State of Colorado and determined that the plaintiffs do not have a contractual right to a specific annual increase formula for life without change. The District Court’s decision rejected the plaintiffs’ claims based upon failure to establish a contractual relationship. On July 25, 2011, the plaintiffs appealed the District Court’s decision and in October 2012, the Court of Appeals remanded the case to the District Court for further review.

In remanding the case to the District Court, the Court of Appeals set forth the legal test for when benefits can be reduced and determined that the plaintiffs are not entitled to a fixed annual increase formula for life without change. The Court determined that the annual increase is a vested contract right but the annual increase percentage can be reduced in certain circumstances. The annual increase can be reduced if the modification was reasonable and necessary to address a legitimate public purpose. On November 21, 2012, PERA and the State of Colorado filed an appeal with the Colorado Supreme Court.

The plaintiffs also filed their appeal with the Colorado Supreme Court objecting to the legal standard adopted by the Court of Appeals. The Colorado Supreme Court has not yet announced whether or not this case will be heard.

### Lawsuit Regarding Memorial Health System

On October 1, 2012, Memorial Health System (Memorial) terminated its affiliation with PERA. Memorial’s termination results from the 30-year lease of Memorial to University of Colorado Health (UCH) and its related entities. In exchange for the lease, the City of Colorado Springs (the City) received \$259 million, of which \$185 million is contractually specified as having been paid to the City to put toward the PERA liability associated with Memorial’s termination of affiliation. As of October 1, 2012, employees of Memorial no longer were eligible to participate in PERA since they no longer were employed with a PERA-affiliated employer.

On September 6, 2012, the City, UCH, and PERA entered into an agreement by which the parties agreed that the \$259 million would be placed in a court-supervised escrow account pending resolution of the litigation between the City, Memorial, and PERA.

As part of this agreement, the parties agreed that the City would file its claims in the City and County of Denver. The City filed its Complaint on September 13, 2012, and PERA filed its Answer and Counterclaims on September 26, 2012.

PERA’s position is that the termination of affiliation provisions, as outlined in PERA statutes, apply to the Memorial transaction, and that Memorial must pay its share of the current unfunded liability, with interest, in PERA’s Local Government Division and PERA’s Health Care Trust Fund because it terminated its affiliation with PERA.

The City and Memorial’s position is that the termination of affiliation provisions in PERA statutes do not apply to this transaction and PERA is not owed anything as a result of the Memorial transaction.

On May 17, 2013, PERA filed a motion asking the Court to determine that the existing disaffiliation statutes apply and that the City is obligated to cover the costs of retirement benefits already earned by former Memorial members and retirees.

### Stapleton v. PERA Lawsuit

In April 2012, Denver District Court Judge Edward D. Bronfin ruled in favor of PERA in the lawsuit (*Stapleton v. PERA*) brought by Colorado State Treasurer Walker Stapleton in June 2011. In his ruling, Judge Bronfin determined that the PERA Board properly concluded that the Treasurer is not entitled to information he requested regarding the top 20 percent of PERA benefit recipients. Information requested by the Treasurer included: the annual retirement benefit, year of retirement, age at retirement, last five years of salary as a PERA member, employer division, and ZIP code.

Judge Bronfin stated “the Treasurer—just like any Trustee of the PERA Board—is not entitled to unlimited, unfettered access to individual PERA member and benefit recipient information which is rendered confidential by statute. Rather, any request for such confidential information must be in furtherance of the Treasurer’s—or other Trustees’—fiduciary duty ‘solely’ to act in the interest of PERA members and benefit recipients...The request for confidential information must reasonably be calculated or designed to further ‘solely’ the interests of PERA members and benefit recipients.”

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The judge went on to conclude that “here, the Treasurer was unable or unwilling to provide his co-Trustees and co-fiduciaries with any explanation about how the requested information was reasonably designed to further ‘solely’ the interests of PERA members and benefit recipients.” He explained further, “Because the Treasurer was unable to articulate any legitimate explanation for how or why the requested information was needed, or how or why it would further his fiduciary duty ‘solely’ to PERA members and benefit recipients, the Court concludes...the PERA Board acted appropriately in denying the Treasurer’s request for the requested information.”

Colorado law requires PERA to maintain the confidentiality of “all information” in PERA’s member records. With this ruling, PERA was able to obtain guidance regarding circumstances under which it can lawfully disclose information regarding its members and benefit recipients to PERA Trustees.

In May 2012, Trustee Stapleton filed his Notice of Appeal, indicating that he would be appealing the District Court’s decision to the Colorado Court of Appeals. The Court of Appeals heard oral argument on June 11, 2013, and has not yet rendered a decision.

### Lawsuit Regarding Short-Term Disability Program

On March 7, 2011, a civil action was filed in Denver District Court (*Tracey Lawless v. Standard Insurance Company, et al.*) where the plaintiff, who claims to be acting on behalf of a class of individuals, alleges that PERA has adopted the wrong disability standard under the short-term disability program. The primary claim is that PERA Rule 7.45E, which sets forth the medical standard for short-term disability, conflicts with the medical standard defined in PERA statutes. On January 4, 2012, the Denver District Court ruled in favor of PERA and determined that Rule 7.45E is not in conflict with the medical standard set forth in PERA statutes. On March 22, 2012, the plaintiff filed her Notice of Appeal, and the Court of Appeals heard this matter on January 29, 2013. The Court of Appeals has not yet rendered its decision.

### Economic Condition and Outlook

The U.S. economy grew at a modest pace during 2012. There was slow but steady improvement in many areas of the economy during the year. The unemployment rate ended the year at 7.8 percent, an improvement from 8.5 percent at the end of 2011. Manufacturing numbers reflected a modestly expanding economy. Consumer spending and consumer sentiment showed moderate improvement. The residential housing market showed encouraging signs of strengthening as housing prices rose, existing inventory fell, and housing construction began to increase. The Federal Reserve maintained the Fed Funds rate at a stated range of 0.00 percent to 0.25 percent during the year and also implemented additional stimulative measures. The Federal Reserve indicated that it intends to leave short-term rates low for an extended period of time, possibly until 2015. U.S. fiscal policies continue to be a significant concern to financial markets. Inflation pressures, particularly core inflation, remain contained. Corporate balance sheets are flush with cash, and profit margins are at historically high levels.

The global economy also grew at a modest pace during 2012, as many central banks around the world maintained stimulative monetary policy. At the end of the year, two of the largest economies in the world were driving global economic growth: the U.S. and China. Developed countries other than the U.S. and within Europe continue

to experience slow growth and unsustainably high levels of public and private debt. Emerging market economies, in general, also experienced positive, but slowing growth during the year. The overall European economy continues to be in a recession; the depth and length of the downturn as a result of austerity programs in peripheral countries remains to be determined.

The Colorado economy continues to recover from the financial crisis. The agriculture and health care industries along with professional business services led economic growth in the state’s economy during 2012. The construction sector has remained weak, although new permit activity increased significantly during 2012. The Colorado labor market has shown modest improvement with unemployment levels falling during the year. The residential housing market showed significant improvement in 2012.

### Investments

The Board’s Investment Committee is responsible for assisting the Board in overseeing PERA’s investment program.

Investment portfolio income is a significant source of revenue to PERA. In 2012, for all funds net investment income was \$5,032,537,000, which exceeds member contributions of \$807,788,000 and employer contributions of \$1,104,901,000.

For the year ended December 31, 2012, the total fund had a rate of return of 12.9 percent net-of-fees on a market value basis. PERA’s annualized net-of-fees rate of return over the last three years was 9.4 percent, and over the last five years it was 2.6 percent. Over the last 10 years the net-of-fees rate of return was 8.4 percent.

Prudent funding and healthy investment returns are important to the financial soundness of PERA. Changes in the composition of the investment portfolio are reflected in the Investment Summary on page 108.

An integral part of the overall investment policy is the strategic asset allocation policy. The targeted strategic asset allocation is designed to provide appropriate diversification and balance expected total rate of return with the volatility of expected returns. Specifically, the fund is to be broadly diversified across and within asset classes to limit the volatility of the total fund investment returns and to limit the impact of large losses on individual investments. Both traditional and nontraditional assets are incorporated into the asset allocation mix.

In addition to asset class targets, the Board sets ranges within which asset classes are maintained. The permissible ranges in effect during 2012 were adopted by the Board in 2010. The targeted asset allocation mix and the specified ranges for each asset class are presented on page 105. All of the asset classes were within their specified ranges as of December 31, 2012, as described on page 105.

PERA’s investment policy is summarized in the Colorado PERA Report on Investment Activity on page 105.

### Corporate Governance

PERA has maintained its commitment to corporate governance reform through its participation in the Council of Institutional Investors as well as several other coalitions of long-term shareholders. PERA continues to actively advocate for comprehensive improvements to shareholder rights, rigorous federal oversight, and credit rating agency reform to a broad range of congressional and federal regulatory officials.

## Letter of Transmittal

In addition, PERA continues to be active in the securities litigation arena, fulfilling the PERA Board's commitment to support corporate governance reforms such as transparency, accountability, and enforcement of shareholder's rights.

### Financial Information and Management Responsibility

The financial statements of PERA have been prepared by management, which is responsible for the integrity and fairness of the data presented, including the many amounts which must, of necessity, be based on estimates and judgments. The *CAFR* was prepared to conform to the accounting principles generally accepted in the United States of America. Financial information presented through the annual report is consistent with that which is displayed in the basic financial statements.

Ultimate responsibility for the basic financial statements and annual report rests with the management of PERA; the Board provides an oversight role. The Board is assisted in its responsibilities by the Audit Committee, consisting of eight Board members and two outside members. The Audit Committee has responsibility to oversee the adequacy and effectiveness of PERA's system of internal controls, and the accounting and financial reporting systems. A more detailed description of the role of the Audit Committee can be found in their report on pages 14–15.

Management is responsible for establishing and maintaining adequate internal control over financial reporting. PERA's internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. The internal controls over financial reporting include those policies and procedures that:

- Pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of assets;
- Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures are being made only in accordance with authorizations of management; and
- Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of assets that could have a material effect on the financial statements.

Management has concluded that as of December 31, 2012, internal controls over financial reporting were effective.

There are inherent limitations in the effectiveness of any system of internal control, including the possibility of human error and the circumvention or overriding of controls. Accordingly, even an effective internal control system may not prevent or detect misstatements and can provide only reasonable assurance with respect to financial statement preparation. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions or that the degree of compliance with the policies or procedures may deteriorate.

State law requires that the State Auditor conduct or cause to be conducted an annual audit of PERA. Pursuant to this requirement, under the direction of the State Auditor, KPMG LLP audited PERA's 2012 basic financial statements in accordance with auditing standards generally accepted in the United States of America and Government

Auditing Standards. This audit is described in the Independent Auditor's Report on pages 23–25 of the Financial Section. Management has provided the auditors with full and unrestricted access to PERA's staff to discuss their audit and related findings to facilitate independent validation of the integrity of the plan's financial reporting and the adequacy of internal controls.

The Financial Section of the *CAFR* also contains Management's Discussion and Analysis (MD&A) that serves as a narrative introduction, overview, and analysis of the basic financial statements. This transmittal letter is designed to complement the MD&A and should be read in conjunction with it. The MD&A can be found immediately following the report of the independent auditors and starts on page 26.

### Funding

The Board's Statement of Funding Policy dated November 16, 2007, is as follows: "To secure promised and mandated benefits, the funding goal of the Colorado Public Employees' Retirement Association's defined benefit and retiree health care plans is to maintain employer and member contributions into the trust funds sufficient to accumulate assets over a member's term of employment to fully finance the benefits members receive throughout retirement by achieving and maintaining a minimum 100 percent funding ratio of assets to accrued actuarial liabilities. The Board's minimum 100 percent funding ratio goal over time avoids externalizing the costs of amortizing unfunded accrued liabilities onto others in the future, and provides for fairness and intergenerational equity for taxpayers, employers, and employees with respect to the costs of providing benefits."

On December 31, 2012, PERA's funded ratio was 61.9 percent with an unfunded liability of \$24.2 billion based on the actuarial value of assets and an investment rate of return and discount rate assumption of 8.0 percent. (Please see the MD&A on page 43 for additional information on PERA's funded ratio.)

Investment income is the most significant driver in a defined benefit plan. To understand the significance of this assumption, a sensitivity analysis is included in the MD&A on pages 43–45.

PERA's funding position is the top concern and priority for the Board and management.

The Board worked extensively with elected officials in 2004 and 2006 to pass SB 04-257 and SB 06-235, which were designed to move PERA toward full funding over the coming decades.

Key features of these bills include increased funding through the AED and SAED, as well as a new benefit structure for new hires that includes a Rule of 85 and a separate Annual Increase Reserve (AIR) fund.

With this legislation and its phased 3 percent increases in both the AED and SAED and the projected reductions in normal cost due to benefit adjustments for new hires, PERA was expected to achieve a 30-year amortization period on unfunded liabilities in all trust funds by the end of a 30-year period and eventually achieve a minimum of 100 percent funding in 60 years.

However in 2008, PERA, along with investors worldwide, suffered through one of the worst financial markets in history. During 2009 and again in 2012, the Board initiated and completed an actuarial experience study and an actuarial audit and initiated an asset/liability study to assist in determining the best course of action for the various

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funds. These studies included a detailed review of all significant actuarial assumptions and methods used in preparing the annual actuarial valuation including the investment rate of return and discount rate assumptions, which as a result of these studies, were reduced 0.5 percent to 8.0 percent. A listing of all of the changes to the actuarial assumptions can be found in the Notes to the Required Supplemental Information on pages 95–98. Additionally in 2009, the Board requested and had completed an actuarial analysis of the impact of different possible benefit and contribution changes which would be considered during the 2010 legislative session so as to achieve long-term sustainability for the trust funds.

PERA believed it was necessary to work toward proposed legislation in the 2010 legislative session to address the dramatic decline in the financial markets and economy and the resulting decline in the PERA investment portfolio. The comprehensive proposal for legislative action came to fruition in 2010 and was based on thorough calculations and a robust analysis of how the various possible changes would impact PERA's funded status and its members. The modifications of SB 10-001 were included in the 2009 actuarial valuation results. To maintain the sustainability of PERA it is critical that every aspect of the bill be fulfilled. The entire bill can be found online at <http://www.leg.state.co.us>.

### PERAPlus 401(k)/457 and Defined Contribution Plans

In addition to the DB plan, PERA offers members opportunities to save for retirement through the PERAPlus 401(k) and 457 Plans. The PERAPlus plans are receiving good reviews. Future Advisor, which provides 401(k) and 457 plan investment advice to individuals, recently rated the plan a four out of five stars based on its 18 plan options with an average expense ratio of 0.33 percent. They consider the PERAPlus plans among the top 16 percent of all reviewed plans in terms of cost and one of the better plans in the industry.

For the year ended December 31, 2012, the defined contribution plans at PERA earned \$295,165,000 in investment income with a net position (total plan assets minus total plan liabilities) of \$2,733,460,000 while the defined benefit plans at PERA earned \$4,737,372,000 in investment income with a net position of \$40,201,578,000.

### Colorado Mile High Fund

In October 2012, PERA introduced a new investment vehicle that makes millions of dollars available for qualifying opportunities within Colorado's business community. The creation of the Colorado Mile High Fund earmarks capital for Colorado businesses that have a nexus to Colorado and currently have the support of a financial sponsor, such as a private equity firm. The primary focus of this new fund is private equity and venture capital opportunities structured as co-investments with financial sponsors. The new fund may also consider uniquely-structured capital formation opportunities to private equity and venture capital firms targeting Colorado-based opportunities.

The investment process and underwriting criteria that PERA will consider before making investments will be consistent with the overall private equity program in place at PERA since the early 1980's.

The Customized Fund Investment Group of Credit Suisse Asset Management, LLC was selected as the adviser for the Colorado Mile High Fund.

### PERACare Health Benefits Program

To assist PERA in the development of innovative strategies to constrain the volatility of health care costs for PERA members and retirees participating in the PERACare health benefits program, PERA issued an RFP in December 2011 for a PERACare consultant. In March 2012, PERA selected Lockton, a global insurance brokerage firm specializing in risk management, insurance, and employee benefits. Lockton immediately started negotiating carrier rate renewals with PERACare carriers to continue to provide a high quality comprehensive health care program to PERA and PERACare participants. In addition, Lockton will provide the following health care consulting and advisory services to PERA: plan management including financial and performance management, compliance services, plan design services, health risk management services, and recommendations for the implementation of health care reform.

### Total Compensation Philosophy

PERA recognizes that people are its primary asset, and its principal source of competitive advantage. PERA offers competitive compensation and provides comprehensive health and welfare benefits to its employees. The key elements of PERA's compensation program are: salaries, health benefits, work-life balance, performance recognition, growth, and development. These programs serve to attract and retain valued employees while motivating extraordinary performance.

PERA strives to maintain its competitive compensation structure and benefit package by using external market survey data and partnering with consultants to stay abreast of current employment trends. Notable surveys include the Mountain States Employers' Council Front Range Survey and the McLagan Partners Pension Fund Data Exchange Compensation Survey. These surveys provide solid comparable data in keeping PERA's programs competitive.

PERA will continue to develop, implement, and support programs that add value for employees, leading to improved employee welfare, engagement, growth, retention, and performance.

### Excellence in Government Finance

In June 2012, PERA was one of the winners of the Award for Excellence in Government Finance from the Government Finance Officers Association (GFOA) of the United States and Canada. PERA received this coveted award for the significant changes made to the PERA Defined Contribution Program in 2011. The changes included providing participants access to custom, easy-to-understand, and diversified investment options (called PERAAdvantage funds), along with the opportunity to seek investment advice at no additional cost.

The Awards for Public Excellence are GFOA's most prestigious awards and they recognize contributions to the practice of government finance that exemplify outstanding financial management. The awards stress practical, documented work that offers leadership to the profession and promotes improved public finance.

### Recognition of Achievements

The GFOA awarded a Certificate of Achievement for Excellence in Financial Reporting to PERA for its *CAFR* for the year ended December 31, 2011. The GFOA's Certificate of Achievement is the highest form of recognition in the area of public employee retirement system accounting and financial reporting. To receive this award, a government unit must publish an easily readable and efficiently organized CAFR that meets or exceeds program standards, and

## Letter of Transmittal

satisfies both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for one year. PERA has been awarded this distinction for the past 27 years. We believe this *CAFR* continues to meet GFOA requirements and we are submitting it to the GFOA to determine its eligibility for another Certificate.

The GFOA also awarded PERA an Award for Outstanding Achievement in Popular Annual Financial Reporting for its Popular Annual Financial Report for the year ended December 31, 2011. This is the tenth year that PERA has received this prestigious national award recognizing its conformance with the highest standards for preparation of state and local government reports. In order to receive this award, a government unit must publish a Popular Financial Report whose contents conform to program standards of creativity, presentation, understandability, and reader appeal.

### PPCC Standards Award Program

The Public Pension Coordinating Council (PPCC) presented PERA with its Recognition Award for Administration for meeting professional standards in 2012 for plan administration as set forth in the Public Pension Standards. The PPCC is a coalition of three national associations that represent public retirement systems and administrators—the National Association of State Retirement Administrators, National Council on Teacher Retirement, and National Conference on Public Employee Retirement Systems. These three associations represent more than 500 of the largest pension plans in the U.S.

### Employer Affiliation

On January 1, 2012, the Estes Park Local Marketing District affiliated with PERA in the Local Government Division.

### Management Changes

In June 2012, Meredith Williams resigned his position as Executive Director of PERA to become Executive Director of the National Council on Teacher Retirement (NCTR). Meredith joined PERA in March 2000 after serving as the Executive Secretary of the Kansas Public Employees Retirement System. During his 12-year tenure at PERA, Meredith made many significant contributions to the Association and his accomplishments had far-reaching effects on Colorado's public employees.

After Meredith's resignation, I was named PERA's Interim Executive Director. A Search Committee was formed by the Board, with the assistance of executive search firm Hudepohl & Associates, and a national search was conducted for qualified candidates. After the Search Committee considered numerous applications and conducted interviews, I was one of the four named finalists and in November was named Executive Director. Senior Staff Attorneys, Adam Franklin and Jennifer Schreck have been named Interim Co-General Counsels as the search process is underway for a General Counsel.

In May 2013, Amy McGarrity was promoted to Deputy Chief Investment Officer replacing David Bomberger who left PERA in September 2012. Amy was previously the Senior Investment Officer for PERA and joined PERA in 2010 as a result of the Denver Public Schools Retirement System (DPSRS) merger. As Deputy Chief Investment Officer, Amy manages the investment activities of PERA in accordance with established investment statutes, policies, and guidelines.

In February 2013, CH Meili was promoted to Director of Real Estate replacing Jim Lavan who retired in January 2013 after 14 years of service. CH was previously a Senior Real Estate Portfolio Manager for PERA and has been at PERA since January 2006. As Director of Real Estate, CH directs the overall management of PERA's real estate portfolio in accordance with established investment statutes, policies, and guidelines.

### Board Composition

PERA is governed by a 16-member Board of Trustees; 11 are elected by the membership for staggered four-year terms and serve without compensation except for necessary expenses. In addition, there are three Governor-appointed Trustees confirmed by the Senate who receive limited compensation. The State Treasurer serves as an ex officio voting member, and the Denver Public Schools (DPS) Division seat also serves as a non-voting ex officio Trustee.

In March 2012, the PERA Board re-appointed two incumbents and one new Trustee to seats on the Board.

Richard Delk, a State Division Trustee, and Amy Nichols, a School Division Trustee, were the only candidates for their seats in the election scheduled to be held in May 2012. Amy Grant was the only candidate for the DPS Division seat. All three Trustees began serving four-year terms on July 1, 2012.

In July 2012, Howard Crane's term ended as a Governor-appointed Trustee. Mr. Crane was first appointed to the PERA Board in July 2007 by former Governor Ritter.

In November 2012, Governor Hickenlooper appointed Ben Valore-Caplan to serve on the PERA Board. Mr. Valore-Caplan was confirmed by the Colorado Senate in March 2013.

### Acknowledgements

The cooperation of our affiliated employers is significant to the success of PERA—we thank the staff and management of these employers for their continuing support.

Copies of this *CAFR* are provided to all PERA-affiliated employers and other interested parties; a summary (*Popular Annual Financial Report*) will be sent to members and benefit recipients. An electronic version of both publications is available on the PERA Web site at [www.copera.org](http://www.copera.org).

I also thank the PERA staff and Board of Trustees for their commitment and efforts to ensure that PERA meets the needs of all public servants in Colorado. I especially would like to express my sincere gratitude and appreciation to Meredith Williams for his many contributions to PERA and public employees throughout his 12-year tenure. We wish him much success as Executive Director of NCTR.

I am honored to have the opportunity to serve our members and beneficiaries as Executive Director. I am proud to be a part of an organization with such a commitment to excellence and look forward to leading PERA through our future challenges.

Respectfully submitted,

*Gregory W. Smith*  
Colorado PERA Executive Director

## Certificate of Achievement







Public Pension Coordinating Council

***Recognition Award for Administration  
2012***

Presented to

***Colorado Public Employees' Retirement Association***

In recognition of meeting professional standards for  
plan administration as  
set forth in the Public Pension Standards.

*Presented by the Public Pension Coordinating Council, a confederation of*

National Association of State Retirement Administrators (NASRA)  
National Conference on Public Employee Retirement Systems (NCPERS)  
National Council on Teacher Retirement (NCTR)

A handwritten signature in cursive script that reads "Alan H. Winkle".

Alan H. Winkle  
Program Administrator

## Board Chair's Report



### Colorado Public Employees' Retirement Association

**Mailing Address:** PO Box 5800, Denver, CO 80217-5800

**Office Locations:** 1301 Pennsylvania Street, Denver  
1120 West 122nd Avenue, Westminster  
303-832-9550 • 1-800-759-PERA (7372)  
[www.copera.org](http://www.copera.org)

June 25, 2013



**Carole Wright**  
Board Chair

### To All Colorado PERA Members, Benefit Recipients, and Employers:

As Chair of the Board of Trustees of the Colorado Public Employees' Retirement Association, I am pleased to present Colorado PERA's 2012 *Comprehensive Annual Financial Report*. This report offers a detailed view of the financial and actuarial status of your retirement system.

In 2012, change brought opportunities and challenges to PERA.

With the mid-year departure of Executive Director Meredith Williams, the Board began a five-month national search for a new executive director. Ultimately, the choice was found closer to home. Former PERA General Counsel and Chief Operating Officer Gregory W. Smith was selected to be the sixth executive director in PERA's 80-year history. A fourth-generation Coloradan, Mr. Smith is a nationally recognized expert in shareholder litigation, the former president of the National Association of Public Pension Attorneys, and the current president of the National Institute on

Retirement Security.

Under Mr. Smith's leadership and the guidance of the Board's Stakeholder Relations Committee, PERA unveiled its social media platforms. Designed in response to member polling, The Dime blog reaches out to address the current, ongoing financial challenges of younger members. A Facebook page and Twitter feed complement this initiative.

PERA continues to have vigorous shareholder contact through traditional formats such as printed materials as well as member meetings. Of note was a new endeavor in 2012, when Field Education Services staff manned booths at the State and county fairs during the summer and distributed data on PERA's economic impact. Even employers were touched by PERA's outreach efforts as Benefits' staff was realigned to improve communication consistency, and the Accounting Division began the Governmental Accounting Standards Board (GASB) education process.

Less visible was the Board's total revision of the *Governance Manual*. This document codifies the policies, relationships, and practices of the Board. The 100-plus page result involved all the Trustees. A special thanks to Vice-Chair Maryann Motza and staff liaison Karl Paulson who parsed every word and kept me motivated until the end.

Change also touched the Board. We bid adieu to DPS Division Trustee Wayne Eckerling and welcomed his replacement Amy Grant. Ms. Grant is the former chair of Denver Public Schools Retirement System Board. Ben Valore-Caplan was appointed by the Governor to replace Howard Crane. Mr. Crane will be remembered for his analytical explanations of investment issues.

During 2012, PERA received employer and employee contributions totaling \$1.9 billion and paid out retirement distributions totaling \$3.5 billion. Benefits were paid to over 100,000 beneficiaries throughout the year.

Historically, investments have been a critical contributor to our retirement plan while maximizing the value of taxpayer, public employee, and employer dollars. Over the last several decades, almost 60 percent of the new money in the PERA trust funds has come from investment income, with the remainder coming almost equally from employee and employer contributions.

PERA's financial stability relies significantly upon the diversification of its investment assets. During favorable and unfavorable markets, PERA adheres to its strategic asset allocation policy. The Board's policy specifies the desired target allocation for each asset class, as well as the ranges within which each asset class may operate. The asset allocation policy is determined by an intensive asset/liability analysis which is conducted periodically with extensive assistance from external experts. Obligations to members over many decades are considered in conjunction with what financial markets may bring in both returns and risks. Assets are managed internally and externally and PERA's investment staff assists in executing the Board's investment policies.

## Board Chair's Report

Over the past 30 years, the PERA investment portfolio has provided an annualized rate of return of 9.4 percent gross of fees, exceeding our current actuarial assumed rate of return of 8.0 percent net-of-fees. PERA's main competitive advantage is the internal management of its investment assets. PERA's investment team manages just under 60 percent of the assets in-house, saving PERA's beneficiaries millions of dollars annually and contributing to PERA's ability to outperform over time. External managers are utilized when they have deeper resources in smaller, niche markets or have particular strategies that complement PERA's internal portfolios. Other factors contribute to PERA's strong long-term results such as our ability to participate in alternative asset classes. For example, PERA invests in private equity partnerships and timber properties which provide attractive returns while diversifying the portfolio.

The PERA investment portfolio will outperform benchmarks in some years and underperform in others in conjunction with varying market conditions. The Board seeks to successfully guide the portfolio over the long term to support the obligations to its members and beneficiaries.

While PERA manages a global portfolio, opportunities closer to home are also considered. In October, PERA launched a new vehicle designed to invest in a diversified, high-quality portfolio of companies with a connection to Colorado. Sponsored by PERA and managed by an external adviser, the Colorado Mile High Fund is a \$50 million co-investment program designed to provide mutually beneficial results for PERA and Colorado-based businesses.

As the year came to a close, we noted a new vibrancy at the National Council on Teacher Retirement (NCTR). We thank Meredith Williams for his 12 years of service at PERA and wish him a continuing arc of success as Executive Director of NCTR.

I would also like to extend my appreciation to the entire PERA membership and other constituencies for their continued support of PERA. As Trustees, we are committed to ensuring the integrity and sustainability of the fund for all PERA members.

Sincerely,

*Carole Wright*  
*Chair, Colorado PERA Board of Trustees*

## Report of the Colorado PERA Audit Committee



### Colorado Public Employees' Retirement Association

**Mailing Address:** PO Box 5800, Denver, CO 80217-5800

**Office Locations:** 1301 Pennsylvania Street, Denver  
1120 West 122nd Avenue, Westminster  
303-832-9550 • 1-800-759-PERA (7372)  
[www.copera.org](http://www.copera.org)

As described more fully in its Charter, the purpose of the Colorado PERA Audit Committee (Audit Committee) is to assist the Board in fulfilling its fiduciary responsibilities as they relate to accounting policies and financial reporting, the system of internal controls, PERA's *Standards of Professional and Ethical Conduct*, the sufficiency of auditing relative thereto, the internal audit process, and the practices of the Director of Internal Audit. Management is responsible for the preparation, presentation, and integrity of PERA's financial statements; accounting and financial reporting principles; internal controls; and procedures designed to reasonably ensure compliance with accounting standards, applicable laws, and regulations. PERA has a full-time Internal Audit Division that reports functionally to the Audit Committee. This Division is responsible for independently and objectively reviewing and evaluating the adequacy, effectiveness, and efficiency of PERA's system of internal controls.

KPMG LLP, PERA's independent public accounting firm (Independent Auditor), is responsible for performing an independent audit of PERA's financial statements in accordance with generally accepted auditing standards and the standards applicable to financial audits contained in Government Auditing Standards issued by the Comptroller General of the United States. In accordance with law, the Colorado State Auditor's Office has ultimate authority and responsibility for selecting, evaluating, and, when appropriate, replacing PERA's Independent Auditor.

The Audit Committee serves a Board-level oversight role in which it provides advice, counsel, and direction to management and to the Internal Audit function on the basis of the information it receives, discussions with management and Internal Audit, and the experience of the Audit Committee's members in business, financial, and accounting matters. In this role, the Audit Committee also reviews the audit plan of the Independent Auditor, the results of the audit, and the status of management's actions to implement recommendations from the audit.

The Audit Committee believes that a candid, substantive, and focused dialogue with the internal auditors and the Independent Auditor is fundamental to the Audit Committee's oversight responsibilities. To support this belief, the Audit Committee periodically meets separately with both the internal auditors and the Independent Auditor, without management present. In the course of its discussions in these meetings, the Audit Committee asked a number of questions intended to bring to light any areas of potential concern related to PERA's financial reporting and internal controls. These questions include, but are not limited to:

- Are there any significant accounting judgments, estimates or adjustments made by management in preparing the financial statements that would have been made differently had the Independent Auditor prepared and been responsible for the financial statements?
- Based on the Independent Auditors' experience, and their knowledge of PERA, do PERA's financial statements fairly present to users, with clarity and completeness, PERA's financial position and performance for the reporting period in accordance with generally accepted accounting principles?
- Based on the Independent Auditors' experience, and their knowledge of PERA, has PERA implemented internal controls and internal audit procedures that are appropriate for PERA?
- Are the Independent Auditor and internal auditors getting the support they need from management to execute their duties?

Questions raised by the Audit Committee regarding these matters were answered to the Audit Committee's satisfaction.

The Audit Committee had an agenda for 2012 that included:

- Recommending the *Comprehensive Annual Financial Report*, including the Report of the Independent Auditors, to the Board for its approval;
- Reviewing and approving the internal audit plans of the Director of Internal Audit;
- Reviewing the adequacy of resources made available to the Director of Internal Audit;
- Reviewing the scope, objectives, and timing of the annual external audit;
- Annually providing input into the Executive Director's annual performance evaluation of the Director of Internal Audit;
- Reviewing PERA's compliance with its *Standards of Professional and Ethical Conduct*;
- Meeting no less than one time per year with the Independent Auditor separately, without management;
- Meeting separately at least annually with the Executive Director, Director of Internal Audit, Chief Financial Officer, and General Counsel;

## Report of the Colorado PERA Audit Committee

- Meeting at least annually with the Director of Internal Audit, or with the person acting in a similar capacity, and with management, to discuss the effectiveness of PERA's internal controls; and
- Reviewing any changes in accounting practices or policies, and the financial impact thereof, any accruals, provisions, estimates or management programs and policies that may have a significant effect on the financial statements of PERA.

The Audit Committee has reviewed and discussed the audited financial statements for the year ended December 31, 2012, with management and KPMG LLP. Management represented to the Audit Committee that PERA's audited financial statements were prepared in accordance with U.S. generally accepted accounting principles, and KPMG LLP represented that their presentations to the Audit Committee included the matters required to be discussed with the Independent Auditor by auditing standards regarding auditor communication. This review included a discussion with management of the quality, not merely the acceptability, of PERA's accounting principles, the reasonableness of significant estimates and judgments, and the clarity of disclosure in PERA's financial statements, including the disclosures related to critical accounting estimates.

In reliance on these reviews and discussions, and the reports of KPMG LLP, the Audit Committee has recommended to the Board, and the Board has approved, the inclusion of the audited financial statements in PERA's *Comprehensive Annual Financial Report* for the year ended December 31, 2012.

Audit Committee as of June 25, 2013

*Timothy M. O'Brien, Chairman*

*Hon. James Casebolt*

*Richard Delk*

*Roger Johnson*

*Warren Malmquist*

*Susan Murphy*

*Marcus Pennell*

*Hon. Walker Stapleton*

*Lynn Turner*

*Carole Wright*

## Board of Trustees



*Front row left to right: Scott L. Noller, Amy Grant, Lynn E. Turner, Amy L. Nichols. Middle row left to right: Rochelle Logan, Susan G. Murphy, Maryann Motza (Vice Chair), Carole Wright (Chair), Carolyn Jonas-Morrison, Scott Murphy, Ben Valore-Caplan. Back row left to right: Marcus Pennell, Timothy M. O'Brien, Brett Johnson, Richard Delk. Not pictured: Hon. James Casebolt and Hon. Walker Stapleton.*

By State law, the management of the public employees' retirement fund is vested in the Board. The Board is composed of 16 members, which includes the following:

- Eleven members elected by mail ballot by their respective Division members to serve on the Board for four-year terms; four members from the School Division, three from the State Division, one from the Local Government Division, one from the Judicial Division, and two retiree members elected by benefit recipients.
- Three members appointed by the Governor and approved by the State Senate.
- The State Treasurer.
- One ex officio (non-voting) member from the DPS Division.

If a Board member resigns, a new member is appointed from the respective Division for the remainder of the year until the next election.

**Board of Trustees****Carole Wright***Chair*

Elected by Retirees  
Retired Teacher,  
Aurora Public Schools  
*Current term expires June 30, 2013*

**Maryann Motza***Vice Chair*

Elected by State Members  
Social Security Administrator  
for the State  
*Current term expires June 30, 2013*

**Honorable James Casebolt**

Elected by Judicial Members  
Judge, Colorado Court of Appeals  
*Current term expires June 30, 2015*

**Howard M. Crane**

Appointed by the Governor  
*Term expired July 10, 2012*

**Richard Delk**

Elected by State Members  
Director, Strategic Fiscal Planning  
Office of the Colorado State Patrol  
*Current term expires June 30, 2016*

**Wayne Eckerling**

Non-voting  
Ex officio member  
Retired Assistant Superintendent,  
Denver Public Schools  
Appointed to Denver Public Schools  
Division seat  
*Term expired June 30, 2012*

**Amy Grant**

Non-voting  
Ex officio member  
Elected by DPS Division members  
and retirees; Former Chair of the  
Denver Public Schools Retirement System  
(DPSRS) Board  
Secretary, DPS JROTC Program  
*Current term expires June 30, 2016*

**Brett Johnson**

Deputy  
State Treasurer  
Delegated Substitute for  
State Treasurer  
*Continuous term effective January 2011*

**Carolyn  
Jonas-Morrison**

Elected by State Members  
Dean, Math and English Division,  
Pikes Peak Community College  
*Current term expires June 30, 2014*

**Rochelle Logan**

Elected by Local Government Members  
Associate Director of Support Services,  
Douglas County Libraries  
*Current term expires June 30, 2014*

**Scott Murphy**

Elected by School Members  
Superintendent,  
Littleton Public Schools  
*Current term expires June 30, 2014*

**Susan G. Murphy**

Appointed by the Governor  
*Current term expires July 10, 2013*

**Amy L. Nichols**

Elected by School Members  
Math Teacher,  
Aurora Public Schools  
*Current term expires June 30, 2016*

**Scott L. Noller**

Elected by School Members  
Assistant Principal,  
Colorado Springs School District #11  
*Current term expires June 30, 2013*

**Timothy M. O'Brien**

Elected by Retirees  
Retired Colorado State Auditor,  
Office of the State Auditor  
*Current term expires June 30, 2015*

**Marcus Pennell**

Elected by School Members  
Physics Teacher, Jefferson County  
School District  
*Current term expires June 30, 2013*

**Honorable Walker Stapleton**

Ex officio member  
State Treasurer  
*Continuous term effective January 2011*

**Lynn E. Turner**

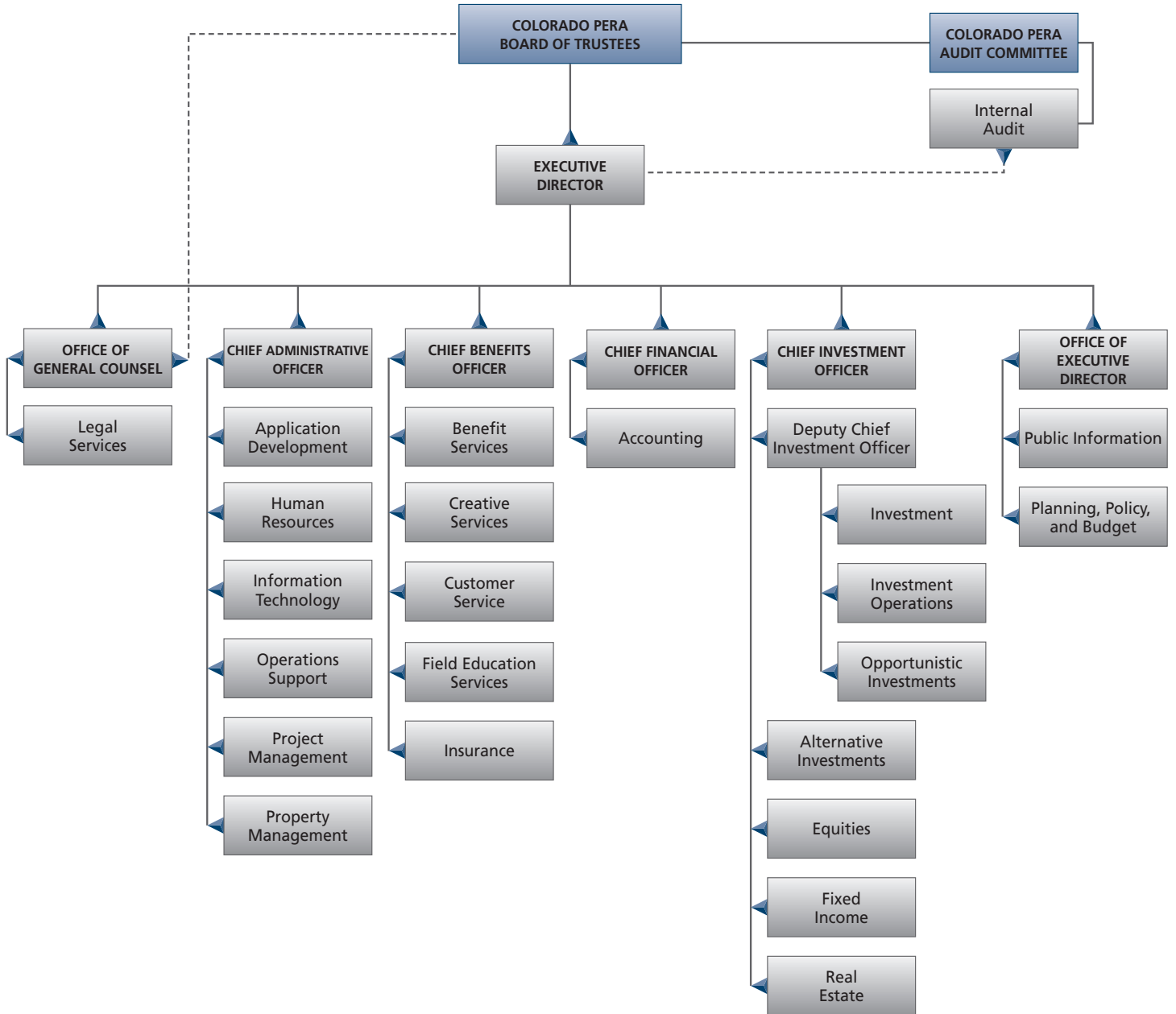
Appointed by the Governor  
*Current term expires July 10, 2014*

**Ben Valore-Caplan**

Appointed by the Governor  
*Current term expires July 10, 2016*

# Administrative Organizational Chart

As of June 1, 2013





## Colorado PERA Executive Management



### Gregory W. Smith—Executive Director

Jennifer Paquette—*Chief Investment Officer*  
 Karl Greve—*Chief Financial Officer*  
 Donna Trujillo—*Chief Benefits Officer*  
 Ron Baker—*Chief Administrative Officer*  
 Katie Kaufmanis—*Public Information Officer*  
 David Mather—*Director of Internal Audit*  
 Karl Paulson—*Director of Planning, Policy, and Budget*  
*General Counsel*



### Adam Franklin—Interim Co-General Counsel/Senior Staff Attorney Jennifer Schreck—Interim Co-General Counsel/Senior Staff Attorney

Luz Rodriguez—*Director of Legal Services*  
*Senior Staff Attorneys*



### Jennifer Paquette—Chief Investment Officer

Amy McGarrity—*Deputy Chief Investment Officer*  
 Martha Argo—*Director of Investment*  
 Bill Koski—*Director of Opportunistic Investments*  
 CH Meili—*Director of Real Estate*  
 Tom Liddy—*Director of Investment Operations*  
 Jim Liptak—*Director of Equities*  
 Tim Moore—*Director of Alternative Investments*  
 Mark Walter—*Director of Fixed Income*



### Karl Greve—Chief Financial Officer

*Accounting Division*



### Donna Trujillo—Chief Benefits Officer

Anne Bandy—*Director of Customer Service*  
 Matt Carroll—*Director of Benefit Services*  
 Dennis Gatlin—*Director of Field Education Services*  
 Madalyn Knudsen—*Director of Creative Services*  
 Wendy Tenzyk—*Director of Insurance*



### Ron Baker—Chief Administrative Officer

Kevin Carpenter—*Director of Information Technology*  
 Dennis Fischer—*Director of Property Management*  
 Rich Krough—*Director of Application Development*  
 Aubre Schneider—*Director of Operations Support*  
 Angela Setter—*Director of Human Resources*  
*Project Management Division*

## Consultants

### Health Care Program Consultant

*Denver Series of Lockton Companies, LLC*  
8100 East Union Avenue  
Suite 700  
Denver, CO 80237

### Independent Auditors

*KPMG LLP*  
1225 17th St.  
Suite 800  
Denver, CO 80202

### Investments—Portfolio Consultant

*Hewitt EnnisKnupp, Inc.*  
10 South Riverside Plaza  
Suite 1600  
Chicago, IL 60606

### Investment Performance Consultants

*Hewitt EnnisKnupp, Inc.*  
10 South Riverside Plaza  
Suite 1600  
Chicago, IL 60606

*The Northern Trust Company*  
50 South LaSalle Street  
Chicago, IL 60603

### Investments—Real Estate Performance

*Hewitt EnnisKnupp, Inc.*  
10 South Riverside Plaza  
Suite 1600  
Chicago, IL 60606

### Master Custodian

*The Northern Trust Company*  
50 South LaSalle Street  
Chicago, IL 60603

### Pension and Health Care Program Actuary

*Cavanaugh Macdonald Consulting, LLC*  
3550 Busbee Parkway  
Suite 250  
Kennesaw, GA 30144

### Risk Management

*IMA of Colorado*  
1550 17th Street  
Suite 600  
Denver, CO 80202

### 401(k), Colorado PERA DC Plan Investment, and Deferred Compensation Plan Performance Consultant

*R.V. Kubns & Associates, Inc.*  
1211 SW 5th Avenue  
Suite 900  
Portland, OR 97204

### 401(k), Colorado PERA DC Plan, and Deferred Compensation Plan Service Provider

*ING Institutional Plan Services, LLC*  
One Windsor Way  
Windsor, CT 06095

Financial Section



*Leadership • Collaboration • Excellence*





KPMG LLP  
Suite 800  
1225 17th Street  
Denver, CO 80202-5598

## Independent Auditors' Report

Board of Trustees  
Colorado Public Employees Retirement Association:

### Report on the Financial Statements

We have audited the accompanying financial statements of Colorado Public Employees' Retirement Association (Colorado PERA) as of and for the year ended December 31, 2012, and the related notes to the financial statements, which collectively comprise Colorado PERA's basic financial statements as listed in the table of contents. We have also audited the financial statements of each individual fund of Colorado PERA as of and for the year ended December 31, 2012, as displayed in Colorado PERA's basic financial statements. The prior year comparative combined information has been derived from Colorado PERA's December 31, 2011 financial statements, and in our report dated June 26, 2012, we expressed an unqualified opinion on the respective financial statements.

### *Management's Responsibility for the Financial Statements*

Management is responsible for the preparation and fair presentation of these financial statements in accordance with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### *Auditors' Responsibility*

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

## Report of the Independent Auditors



### *Opinions*

In our opinion, the financial statements referred to above present fairly, in all material respects, the net position of the Colorado Public Employees' Retirement Association as of December 31, 2012, and the respective changes in net position for the year then ended in accordance with U.S. generally accepted accounting principles. In addition, in our opinion, the financial statements referred to previously present fairly, in all material respects, the respective net position of each individual fund of the Colorado Public Employees' Retirement Association as of December 31, 2012, and the respective changes in net position thereof for the year then ended in conformity with U.S. generally accepted accounting principles.

### *Emphasis of Matter*

As described in note 10 to the financial statements, the funded ratio of the actuarial accrued liability as of December 31, 2012 was 59.2% for the State Division, 62.1% for the School Division, 74.5% for the Local Government Division, 73.1% for the Judicial Division, 84.0% for the Denver Public Schools Division Trust Fund, 16.5% for the Health Care Trust Fund, and 18.6% for the Denver Public Schools Health Care Trust Fund. These funded ratios were derived using an 8% investment rate of return and discount rate and the actuarial value of assets. Any significant deviation in the actual rate of return over a 30-year period would have a material impact on the reported funded ratios as of December 31, 2012.

### *Other Matters*

#### *Required Supplementary Information*

U.S. generally accepted accounting principles require that the management's discussion and analysis on pages 26 to 53 and Required Supplementary Information on pages 91 to 98 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

#### *Supplementary and Other Information*

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise Colorado PERA's basic financial statements. The supplementary schedules included on pages 99 through 101 are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The supplementary schedules on pages 99 through 101 are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supplementary schedules on pages 99 through 101 are fairly stated in all material respects in relation to the basic financial statements as a whole.

## Report of the Independent Auditors



The information contained in the Introductory, Investment, Actuarial and Statistical sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on them.

### **Other Reporting Required by *Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued our report dated June 25, 2013 on our consideration of Colorado PERA's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering Colorado PERA's internal control over financial reporting and compliance.

KPMG LLP

Denver, Colorado  
June 25, 2013

## Management’s Discussion and Analysis (Unaudited)

(In Thousands of Dollars)

Management is pleased to provide this discussion and analysis of the financial activities of the Colorado Public Employees’ Retirement Association (PERA) for the year ended December 31, 2012. We encourage readers to consider the information presented here in conjunction with additional information in the Letter of Transmittal beginning on page 3 of this *CAFR* and with the basic financial statements of PERA on pages 54–57.

In addition to historical information, the Management’s Discussion and Analysis includes forward-looking statements, which involve certain risks and uncertainties. PERA’s actual results, performance, and achievements may differ materially from the results, performance, and achievements expressed or implied in such forward-looking statements, due to a wide range of factors, including changes in interest rates, changes in the securities markets, general economic conditions, and legislative changes, as well as other factors.

PERA administers 11 fiduciary funds, including five defined benefit pension trust funds: the State Division Trust Fund, the School Division Trust Fund, the Local Government Division Trust Fund, the Judicial Division Trust Fund, and the Denver Public Schools Division Trust Fund (the Division Trust Funds). PERA also administers three defined contribution pension trust funds: the Voluntary Investment Program, the Defined Contribution Retirement Plan, and the Deferred Compensation Plan; two cost-sharing multiple-employer defined benefit other postemployment benefit plans (OPEB)—the Health Care Trust Fund (HCTF) and the Denver Public Schools Health Care Trust Fund (DPS HCTF); and one private purpose trust fund, the Life Insurance Reserve (LIR).

The Management’s Discussion and Analysis is organized into the following two sections: Defined Benefit Funds and Defined Contribution Funds. The Defined Benefit Funds section includes the discussion and analysis of the Division Trust Funds, OPEB Funds, and the LIR. The Defined Contribution Funds section includes discussion and analysis of the Voluntary Investment Program, the Defined Contribution Retirement Plan, and the Deferred Compensation Plan.

### DEFINED BENEFIT FUNDS

#### Basic Retirement Equation

$$Investment\ Income + Contributions = Benefits\ Paid + Expenses\ (I+C=B+E)$$

At the most basic level, in the long run, a retirement plan must balance the money coming in through investment earnings and contributions against the money going out through benefit and expense payments.

$$I + C = B + E$$

**Where:** **I** is investment income  
**C** is contribution inflows  
**B** is benefits paid  
**E** is expenses

During any year in the life of a plan, one side of the equation will be greater than the other with the goal that they will balance in the long run. The Statement of Changes in Net Position on pages 56–57 details the contributions, investment income, benefit payments, and expenses for all of the fiduciary funds PERA administers.

The results for the past 30 years (January 1, 1983, to December 31, 2012) show that the funds grew by \$36,935,000. The breakdown of the change in net position is shown below for the 30-year period January 1, 1983, to December 31, 2012. During this time, the number of members and benefit recipients grew over 300 percent from 118,860 to 496,760.

#### Change in Net Position (30–Year Period)

<b>I</b> – Investment income	\$47,014,000
<b>C</b> – Contributions	30,110,000
<b>C</b> – Plan transfers	2,764,000
Subtotal	<u>79,888,000</u>
<b>B</b> – Benefits	42,334,000
<b>E</b> – Expenses	619,000
Subtotal	<u>42,953,000</u>
Change in net position	<u>\$36,935,000</u>



## Management's Discussion and Analysis (Unaudited)

(In Thousands of Dollars)

For the year ended December 31, 2012, the funds' net position increased by \$2,668,987 or 7.1 percent. Benefits and expenses exceeded contributions by \$2,068,385. The increase was principally due to the strong financial markets where the total fund realized an annual return of 12.9 percent versus the total fund benchmark's annual return (56 percent of the Global Equity Custom Benchmark; 25 percent of the Fixed Income Custom Benchmark; 7 percent of the Real Estate Custom Benchmark; 7 percent of the Alternative Custom Benchmark; and 5 percent of the Opportunity Fund Benchmark) of 13.4 percent. The breakdown of the net change in assets is shown below for the year ended December 31, 2012.

### 2012 Change in Net Position

I – Investment income	\$4,737,372
C – Contributions	1,927,278
Subtotal	6,664,650
B – Benefits	3,952,423
E – Expenses	43,240
Subtotal	3,995,663
Change in net position	\$2,668,987

### Financial Reporting Highlights

The net position for all defined benefit funds administered by PERA increased \$2,668,987 during calendar year 2012.

### Net Position

	2012 CHANGE IN NET POSITION	2012 ENDING NET POSITION
State Division Trust Fund	\$774,691	\$12,797,352
School Division Trust Fund	1,401,775	20,676,355
Local Government Division Trust Fund	282,619	3,166,132
Judicial Division Trust Fund	22,028	243,217
Denver Public Schools Division Trust Fund	176,007	2,996,078
Health Care Trust Fund	9,951	291,737
Denver Public Schools Health Care Trust Fund	468	14,843
Life Insurance Reserve	1,448	15,864
<b>Total</b>	<b>\$2,668,987</b>	<b>\$40,201,578</b>

In all funds, the increase in the net position was primarily due to strong investment income in 2012.

### Change in Net Position

	(C) CONTRIBUTIONS AND OTHER ADDITIONS	+ (C) PLAN TRANSFERS	+ (I) INVESTMENT GAIN/(LOSS)	– (B) – (E) BENEFITS, EXPENSES, AND OTHER DEDUCTIONS	= NET CHANGE CHANGE IN NET ASSETS
State Division Trust Fund	\$578,639	\$—	\$1,511,244	\$1,315,192	\$774,691
School Division Trust Fund	905,161	—	2,434,176	1,937,562	1,401,775
Local Government Division Trust Fund	157,530	—	368,492	243,403	282,619
Judicial Division Trust Fund	12,286	—	28,063	18,321	22,028
Denver Public Schools Division Trust Fund	57,897	—	354,867	236,757	176,007
Health Care Trust Fund	205,523	—	36,710	232,282	9,951
Denver Public Schools Health Care Trust Fund	10,242	—	1,800	11,574	468
Life Insurance Reserve	—	—	2,020	572	1,448
<b>2012 change in net position</b>	<b>\$1,927,278</b>	<b>\$—</b>	<b>\$4,737,372</b>	<b>\$3,995,663</b>	<b>\$2,668,987</b>
<b>2011 change in net position</b>	<b>\$1,861,792</b>	<b>\$—</b>	<b>\$721,110</b>	<b>\$3,771,506</b>	<b>(\$1,188,604)</b>
<b>2010 change in net position</b>	<b>\$1,813,362</b>	<b>\$2,764,076</b>	<b>\$4,812,116</b>	<b>\$3,599,611</b>	<b>\$5,789,943</b>
<b>2009 change in net position<sup>1</sup></b>	<b>\$1,667,852</b>	<b>\$—</b>	<b>\$4,933,674</b>	<b>\$3,193,578</b>	<b>\$3,407,948</b>
<b>2008 change in net position<sup>1</sup></b>	<b>\$1,578,743</b>	<b>\$—</b>	<b>(\$10,505,823)</b>	<b>\$2,988,165</b>	<b>(\$11,915,245)</b>
<b>2008–2012 change in net position<sup>1</sup></b>	<b>\$8,849,027</b>	<b>\$2,764,076</b>	<b>\$4,698,449</b>	<b>\$17,548,523</b>	<b>(\$1,236,971)</b>

<sup>1</sup>Does not include the DPS Division Trust Fund and the DPS HCTF prior to 2010.

## Management’s Discussion and Analysis (Unaudited)

(In Thousands of Dollars)

### Analysis of Investment Income Basic Funding Equation: $I+C = B+E$

#### Investment Highlights

##### Investment Gains/Losses

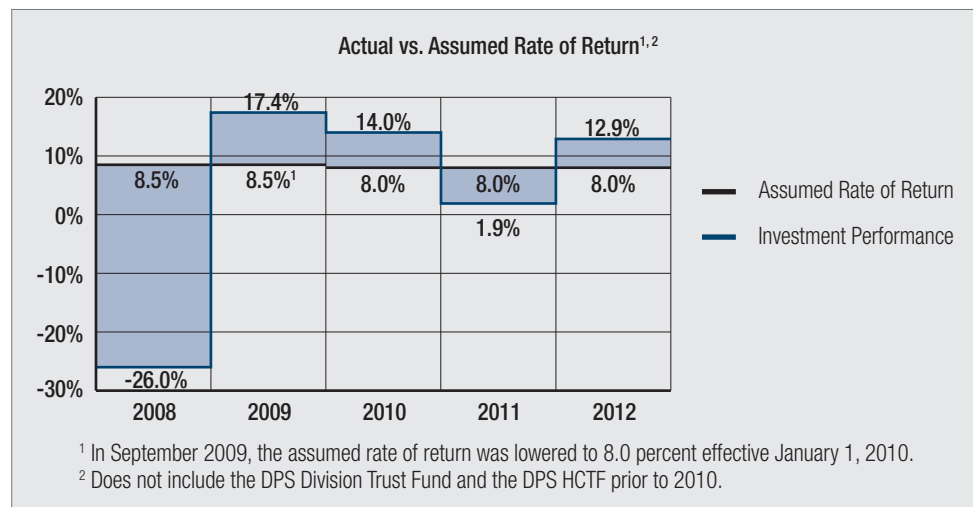
	NET APPRECIATION/ (DEPRECIATION) IN FAIR VALUE	INTEREST AND DIVIDENDS	REAL ESTATE, ALT INVEST, AND OPPTY FUND NET OPERATING INC	INVESTMENT EXPENSES	SECURITIES LENDING INCOME	TOTAL INVESTMENT GAIN/(LOSS)
State Division Trust Fund	\$1,229,820	\$252,370	\$72,050	(\$47,064)	\$4,068	\$1,511,244
School Division Trust Fund	1,980,707	406,652	116,099	(75,836)	6,554	2,434,176
Local Government Division Trust Fund	299,618	61,764	17,633	(11,518)	995	368,492
Judicial Division Trust Fund	22,823	4,698	1,341	(876)	77	28,063
Denver Public Schools Division Trust Fund	288,803	59,243	16,914	(11,048)	955	354,867
Health Care Trust Fund	29,889	6,118	1,747	(1,141)	97	36,710
Denver Public Schools Health Care Trust Fund	1,466	299	86	(56)	5	1,800
Life Insurance Reserve	1,644	337	97	(63)	5	2,020
<b>2012 Total</b>	<b>\$3,854,770</b>	<b>\$791,481</b>	<b>\$225,967</b>	<b>(\$147,602)</b>	<b>\$12,756</b>	<b>\$4,737,372</b>
<b>2011 Total</b>	<b>(\$105,461)</b>	<b>\$727,068</b>	<b>\$227,310</b>	<b>(\$142,377)</b>	<b>\$14,570</b>	<b>\$721,110</b>
<b>2010 Total</b>	<b>\$4,022,081</b>	<b>\$703,530</b>	<b>\$226,428</b>	<b>(\$153,918)</b>	<b>\$13,995</b>	<b>\$4,812,116</b>
<b>2009 Total<sup>1</sup></b>	<b>\$4,201,203</b>	<b>\$663,565</b>	<b>\$158,338</b>	<b>(\$118,731)</b>	<b>\$29,299</b>	<b>\$4,933,674</b>
<b>2008 Total<sup>1</sup></b>	<b>(\$11,381,519)</b>	<b>\$799,501</b>	<b>\$163,589</b>	<b>(\$108,241)</b>	<b>\$20,847</b>	<b>(\$10,505,823)</b>

<sup>1</sup> Does not include the DPS Division Trust Fund and the DPS HCTF prior to 2010.

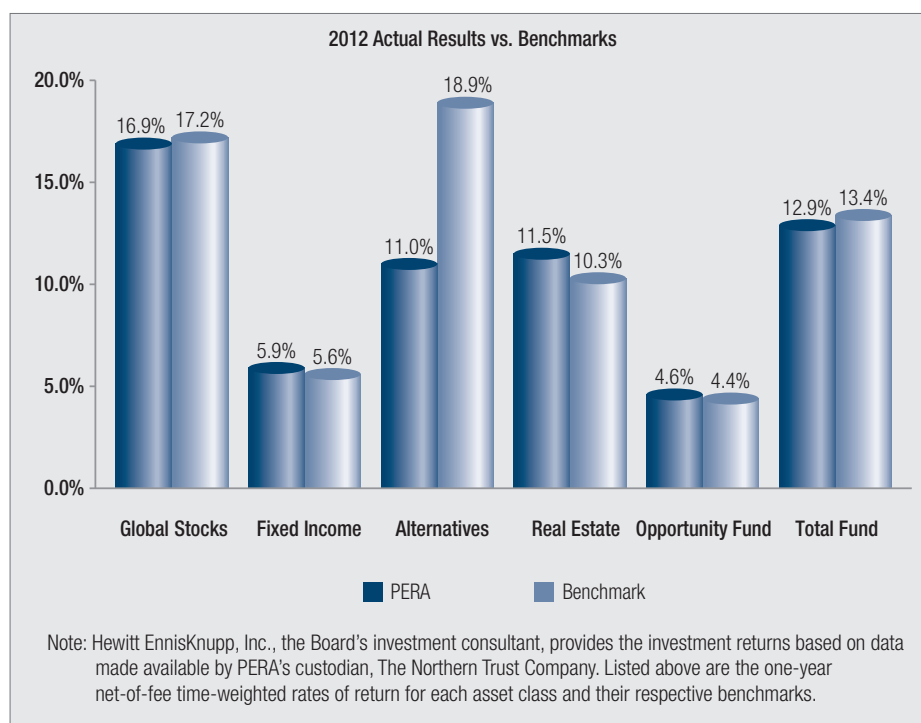
The largest inflow into a retirement plan over the long-term comes from investment income. Over the past 30 years, even with the large losses in 2008, investment income represents 59 percent of the inflows into PERA, and over the past 10 years it represents 58 percent of the inflows.

#### Investment Performance

For the year ended December 31, 2012, the net-of-fee rate of return on the pooled investment assets was 12.9 percent, compared to the 1.9 percent rate of return for the year ended December 31, 2011, and the actuarial assumed rate of return of 8.0 percent. The net-of-fee annualized rate of return for the pooled investment assets was 2.6 percent for the past five years and 8.4 percent for the past 10 years. The 30-year annualized gross-of-fee rate of return for the pooled investment assets was 9.4 percent. Market returns and volatility will vary from year to year for the total fund and across various asset classes. The chart below compares the actual investment performance of the pooled investment assets to the actuarial assumed rate of return for each of the last five years.



## Management's Discussion and Analysis (Unaudited)



PERA adopted a policy benchmark, which is a passive representation of the asset allocation policy, as of April 1, 2004. For 2012, the policy benchmark is a combination of 56 percent of the Global Equity Custom Benchmark; 25 percent of the Fixed Income Custom Benchmark; 7 percent of the Real Estate Custom Benchmark; 7 percent of the Alternative Custom Benchmark; and 5 percent of the Opportunity Fund Benchmark. For more information, see the Schedule of Investment Results on page 109.

The Total Fund underperformed the policy benchmark return by approximately 53 basis points (0.53 percentage points) for the year ended December 31, 2012. Alternative Investments was the primary contributor to the underperformance, while Global Stocks slightly underperformed. Fixed Income, Real Estate, and the Opportunity Fund provided positive contributions. Alternative Investments underperformed for the year principally as a result of two factors: (1) Alternative Investment returns lagged public stock market returns as often happens when the stock market has a large move and (2) there were more limited opportunities to realize partnership investments. The Global Stocks portfolio generally has a bias toward securities issued by companies that possess strong financial health and also show solid and improving profitability as these stocks tend to outperform over longer time periods. From a broad perspective, the stocks that outperformed in 2012 were stocks of companies with low quality characteristics including weaker balance sheets and more variable earnings. Asset allocation, or the variance in the actual weights of the various asset classes versus the target weights, produced a small positive impact to the total fund returns, while cash had a small negative impact on the overall return.

For the year ended December 31, 2012, PERA's total fund returned 12.9 percent, compared to the BNY Mellon Performance and Risk Analytics' Median Public Fund return of 13.0 percent. As of December 31, 2012, the BNY Mellon Performance and Risk Analytics' Median Public Fund measure was comprised of 67 public pension funds with assets of approximately \$0.7 trillion. PERA's total fund returned 9.4 percent and 2.6 percent on a three- and five-year annualized basis, respectively, compared with the BNY Mellon Performance and Risk Analytics' Median Public Fund returns of 8.7 percent and 2.6 percent for these periods, respectively.

### ***Asset Allocation***

The PERA Board of Trustees (Board) is responsible for the investment of PERA's funds with the following statutory limitations: the aggregate amount of monies invested in corporate stocks and fixed income securities convertible into stock cannot exceed 65 percent of the then book value of the fund, no investment in common and/or preferred stock of any single corporation can exceed 5 percent of the then book value of the fund, and the fund cannot acquire more than 12 percent of the outstanding stock or bonds of any single corporation. As a fiduciary of the funds, the Board is responsible to carry out its investment functions solely in the interest of the PERA members and benefit recipients and for the exclusive purpose of providing benefits.

In 2010, the Board commissioned an Asset/Liability Study prepared by Hewitt EnnisKnupp, Inc. The objective of the study was to determine the optimal strategic asset allocation policy that would ultimately allow PERA to meet its benefit obligations, while also ensuring that PERA incurs appropriate levels of risk. The Board's policy specifies the desired target allocation for each asset class as well as the ranges within which each asset class may operate. As a result of the study, the Board approved the current asset allocation targets and ranges at its September 2010 Board meeting.

## Management’s Discussion and Analysis (Unaudited)

(In Thousands of Dollars)

### Asset Allocation Targets and Ranges

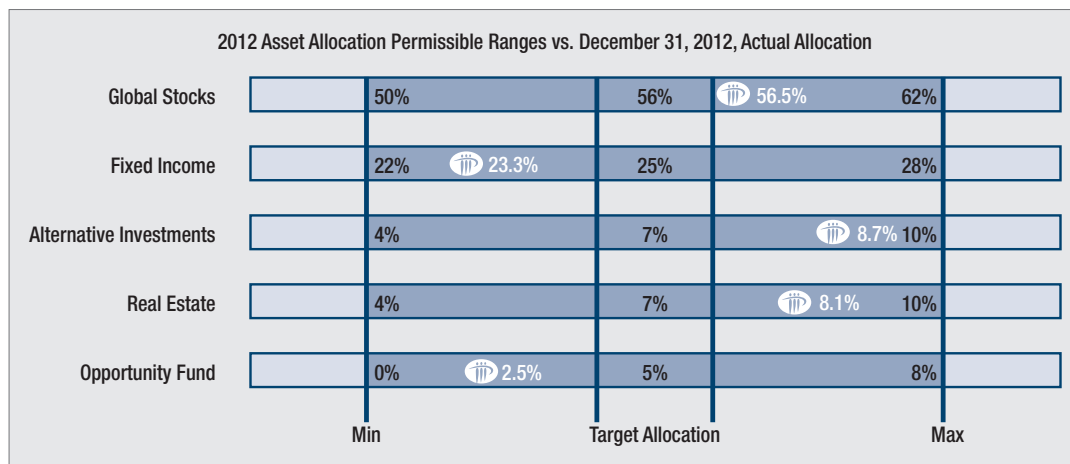
	12/31/2011 ACTUAL % <sup>1</sup>	2011 TARGET %	2011 RANGES	12/31/2012 ACTUAL % <sup>1</sup>	2012 TARGET %	2012 RANGES
Global Stocks	55.5%	56%	50%-62%	56.5%	56%	50%-62%
Fixed Income	23.6%	25%	22%-28%	23.3%	25%	22%-28%
Alternative Investments <sup>2</sup>	9.3%	7%	4%-10%	8.7%	7%	4%-10%
Real Estate	8.6%	7%	4%-10%	8.1%	7%	4%-10%
Opportunity Fund <sup>3</sup>	2.1%	5%	0%-8%	2.5%	5%	0%-8%
Cash & Short-Term Investments <sup>4</sup>	0.9%	0%		0.9%	0%	

<sup>1</sup> Asset allocation decisions are made based on the total holdings of the portfolios within each asset class. Therefore, the investment receivables, payables, accruals, and cash and short-term investments are allocated back to the investment portfolios that hold them for purposes of the table above and chart below.

<sup>2</sup> The Alternative Investment asset class has exposure to private equity, venture capital, secondary interests in private equity funds, and distressed debt.

<sup>3</sup> The Opportunity Fund asset class has exposure to timber, commodity, risk-parity, and tactical opportunity funds.

<sup>4</sup> A range has not been set for Cash & Short-Term Investments in the Asset Allocation Policy. The target percentage is zero.



### Sudan Divestment

Following the 2007 legislative session, former Governor Ritter signed into law House Bill 07-1184: Sudan Divestment by Public Pension Plans, which imposes targeted divestment from companies with active business operations in Sudan. As a result of this legislation, PERA is required to create a list of scrutinized companies at least every six months and to prohibit investments in these companies going forward. The establishment of the list requires PERA to engage the companies on the list to warn them of potential divestment and to encourage the companies to change their activities in Sudan. PERA must also engage the managers of indirect investments in companies on the list and request removal of scrutinized companies or ask the manager to create a similar fund that does not contain the identified companies. PERA contacts managers in its defined benefit plans as well as managers of funds within the defined contribution plans regarding the Scrutinized Companies List. In 2012, PERA submitted its Scrutinized Companies List to elected officials of the State on March 16, 2012, September 21, 2012, and December 10, 2012.

More information regarding the Sudan Divestment can be obtained from the PERA Web site at [www.copera.org](http://www.copera.org).

### Iran-Related Investment Policy

On January 18, 2008, the Board adopted an Iran-Related Investment Policy. This policy outlines a phased strategy to address PERA’s direct public investments in foreign companies doing business in the Islamic Republic of Iran. The strategy addresses and includes a number of actions, up to and including possible divestment. PERA recognizes the federal government has sole responsibility for the conduct of American foreign policy. PERA is acting out of a fiduciary concern for the welfare of its members’ assets, which requires a broad horizon and sensitivity to the potential risks posed by investment in Iran.

More information regarding the Iran investment policy can be obtained from the PERA Web site at [www.copera.org](http://www.copera.org).

### Commitments

As of December 31, 2012, PERA had commitments for the future purchase of investments in Alternative Investments of \$1,494,860, in Real Estate of \$535,500, and in the Opportunity Fund of \$83,723.

## Management's Discussion and Analysis (Unaudited)

(In Thousands of Dollars)

## Analysis of Contributions

Basic Funding Equation:  $I+C = B+E$ 

## Contribution Rates

Member and employer contribution rates are set in statute. Senate Bill (SB) 10-146 required member contributions to increase by 2.50 percent and employer contributions to decrease by 2.50 percent for the State and Judicial Divisions (swap) for the period July 1, 2010, through June 30, 2011. SB 11-076 extended the swap an additional year, from July 1, 2011, through June 30, 2012. The amount of the swap in calendar years 2011 and 2012 for the State Division was \$61,762 and \$30,740, and for the Judicial Division it was \$981 and \$490, respectively.

## Member Contribution Rates for 2012

TRUST FUND	JANUARY 1—JUNE 30, 2012	JULY 1—DECEMBER 31, 2012
State Division (except State Troopers)	10.50%	8.00%
State Division (State Troopers)	12.50%	10.00%
School Division	8.00%	8.00%
Local Government Division	8.00%	8.00%
Judicial Division	10.50%	8.00%
Denver Public Schools Division	8.00%	8.00%
Health Care	0.00%	0.00%
Denver Public Schools Health Care	0.00%	0.00%

Member contributions for the Division Trust Funds decreased from \$676,768 in 2011 to \$640,560 in 2012. Over the past 30 years, member contributions represent 19 percent of the inflows into the Division Trust Funds.

Employer contributions for the Division Trust Funds, the HCTF, and the DPS HCTF increased from \$1,013,731 in 2011 to \$1,093,193 in 2012. In addition to the 2.50 percent employer member contribution swap in the State and Judicial Divisions for six months in 2012, employer contributions increased due to increases in the Amortization Equalization Disbursement (AED) and Supplemental Amortization Equalization Disbursement (SAED). Over the past 30 years, employer contributions represent 19 percent of the inflows into the Division Trust Funds, HCTF, and the DPS HCTF.

## Employer Contribution Rates

January 1—June 30, 2012

TRUST FUND	ANNUAL REQUIRED CONTRIBUTION <sup>1</sup>	ACTUAL EMPLOYER CONTRIBUTION RATE	HEALTH CARE CONTRIBUTION RATE	AED	SAED	DENVER PUBLIC SCHOOLS PCPOP OFFSET	CONTRIBUTION RATE AVAILABLE FOR FUNDING
State Division (except State Troopers)	16.52%	7.65%	(1.02%)	3.00%	2.50%	—	12.13%
State Division (State Troopers)	—	10.35%	(1.02%)	3.00%	2.50%	—	14.83%
School Division	17.60%	10.15%	(1.02%)	3.00%	2.50%	—	14.63%
Local Government Division	9.79%	10.00%	(1.02%)	2.20%	1.50%	—	12.68%
Judicial Division	18.28%	11.16%	(1.02%)	2.20%	1.50%	—	13.84%
Denver Public Schools Division	9.60%	13.75%	(1.02%)	3.00%	2.50%	(15.37%)	2.86%
Health Care	1.18%	—	1.02%	—	—	—	1.02%
Denver Public Schools Health Care	0.92%	—	1.02%	—	—	—	1.02%

July 1—December 31, 2012

TRUST FUND	ANNUAL REQUIRED CONTRIBUTION <sup>1</sup>	ACTUAL EMPLOYER CONTRIBUTION RATE	HEALTH CARE CONTRIBUTION RATE	AED	SAED	DENVER PUBLIC SCHOOLS PCPOP OFFSET	CONTRIBUTION RATE AVAILABLE FOR FUNDING
State Division (except State Troopers)	16.52%	10.15%	(1.02%)	3.00%	2.50%	—	14.63%
State Division (State Troopers)	—	12.85%	(1.02%)	3.00%	2.50%	—	17.33%
School Division	17.60%	10.15%	(1.02%)	3.00%	2.50%	—	14.63%
Local Government Division	9.79%	10.00%	(1.02%)	2.20%	1.50%	—	12.68%
Judicial Division	18.28%	13.66%	(1.02%)	2.20%	1.50%	—	16.34%
Denver Public Schools Division	9.60%	13.75%	(1.02%)	3.00%	2.50%	(15.37%)	2.86%
Health Care	1.18%	—	1.02%	—	—	—	1.02%
Denver Public Schools Health Care	0.92%	—	1.02%	—	—	—	1.02%

<sup>1</sup> Annual Required Contribution rates for 2012 contributions are based on the 2010 Actuarial Valuation.

## Management's Discussion and Analysis (Unaudited)

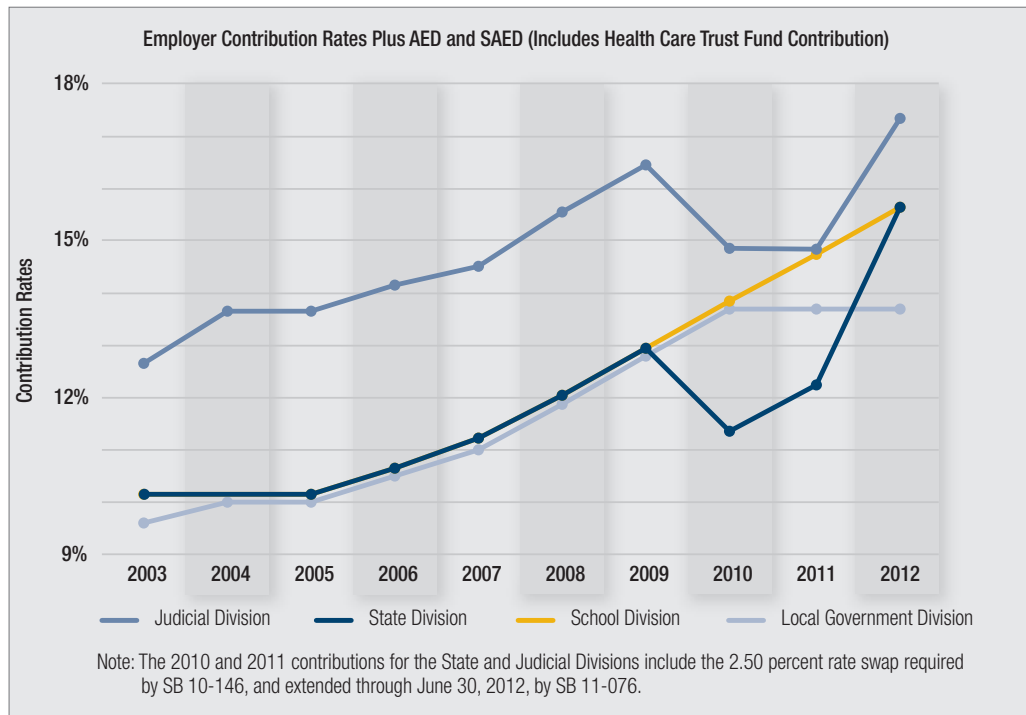
(In Thousands of Dollars)

### 2012 Total Contributions for Division and Health Care Trust Funds

TRUST FUND	EMPLOYER CONTRIBUTIONS <sup>1</sup>	MEMBER CONTRIBUTIONS	PURCHASED SERVICE	RETIREE HEALTH AND LIFE PREMIUMS	FEDERAL HEALTH CARE SUBSIDIES	OTHER	TOTAL CONTRIBUTIONS AND OTHER
State Division	\$335,073	\$227,058	\$16,358	\$—	\$—	\$150	\$578,639
School Division	573,586	313,923	17,406	—	—	246	905,161
Local Government Division	86,113	54,827	13,927	—	—	2,663	157,530
Judicial Division	5,922	3,628	180	—	—	2,556	12,286
Denver Public Schools Division	14,703	41,124	1,924	—	—	146	57,897
Health Care	72,553	—	—	107,104	14,198	11,668	205,523
Denver Public Schools Health Care	5,243	—	—	4,295	488	216	10,242
<b>2012 Total</b>	<b>\$1,093,193</b>	<b>\$640,560</b>	<b>\$49,795</b>	<b>\$111,399</b>	<b>\$14,686</b>	<b>\$17,645</b>	<b>\$1,927,278</b>
<b>2011 Total</b>	<b>\$1,013,731</b>	<b>\$676,768</b>	<b>\$31,441</b>	<b>\$113,218</b>	<b>\$14,650</b>	<b>\$11,984</b>	<b>\$1,861,792</b>
<b>2010 Total</b>	<b>\$987,139</b>	<b>\$636,703</b>	<b>\$31,428</b>	<b>\$114,905</b>	<b>\$27,003</b>	<b>\$16,184</b>	<b>\$1,813,362</b>
<b>2009 Total<sup>2</sup></b>	<b>\$941,801</b>	<b>\$569,338</b>	<b>\$23,439</b>	<b>\$106,903</b>	<b>\$13,633</b>	<b>\$12,738</b>	<b>\$1,667,852</b>
<b>2008 Total<sup>2</sup></b>	<b>\$857,729</b>	<b>\$557,481</b>	<b>\$32,547</b>	<b>\$102,644</b>	<b>\$13,743</b>	<b>\$12,827</b>	<b>\$1,576,971</b>

<sup>1</sup> Employer contributions include the employer statutory rate, AED, and SAED, less an offset (15.37 percent in 2012, and 14.72 percent in 2011) for the DPS Division as required by SB 09-282.

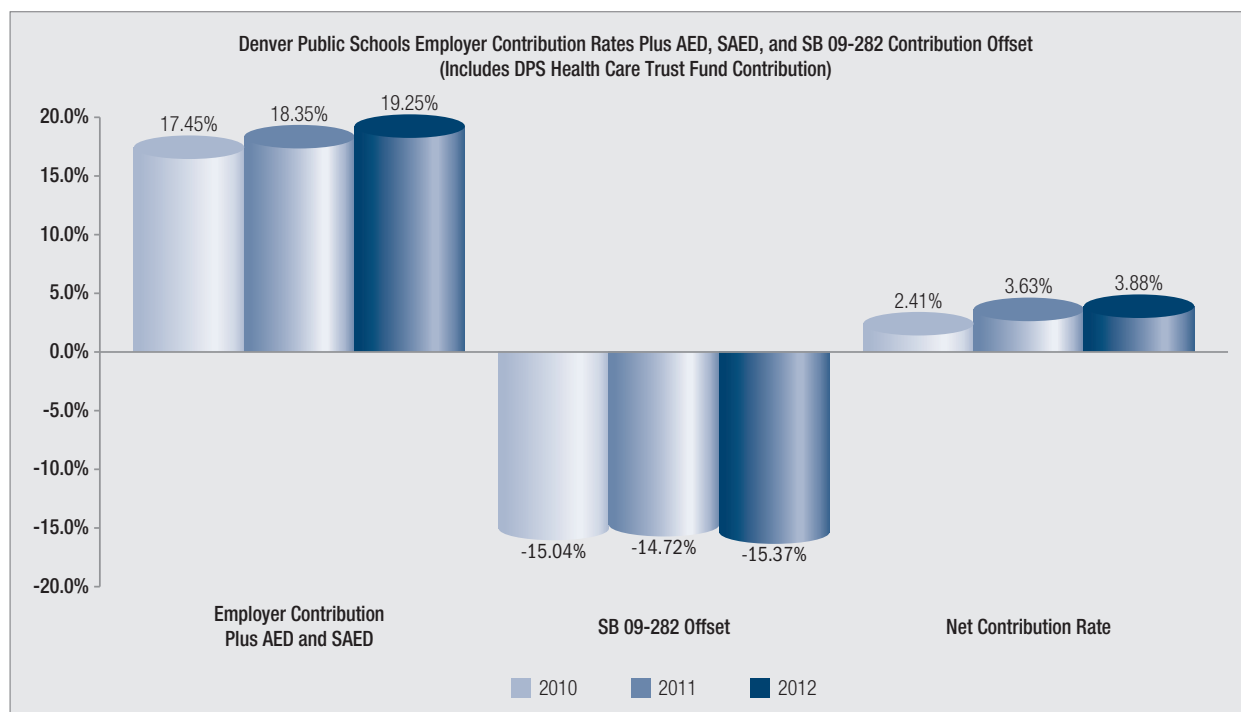
<sup>2</sup> Does not include the DPS Division and the DPS HCTF prior to 2010.



SB 09-282 provides for an offset to the DPS Division employer contribution rate. The offset, expressed as a percentage of payroll, is equal to the annual assumed payment obligations for pension certificates of participation (PCOPs) issued in 1997 and 2008, including a refinancing in 2011, by the Denver Public Schools at a fixed effective annual interest rate of 8.50 percent. At a minimum, the DPS Division employer contribution rate must be sufficient to fund the DPS HCTF (1.02 percent) and the Annual Increase Reserve (AIR) (1.00 percent) as the AIR applies to the DPS Division. The annual increase (AI) is a post-retirement cost-of-living adjustment meeting certain criteria as described in Note 1 of the Notes to the Financial Statements. The staff of Denver Public Schools calculated the PCOP offset rate of 15.04 percent for 2010, 14.72 percent for 2011, 15.37 percent for 2012, and 14.51 percent for 2013.

## Management’s Discussion and Analysis (Unaudited)

C.R.S § 24-51-401(1.7) (e) recognizes the effort to equalize the funded status of the DPS Division and the School Division of PERA. Beginning January 1, 2015, and every fifth year thereafter, the bill requires a true-up calculation to confirm the equalization of the funded status of these two divisions. The true-up calculation is an actuarial projection to assure the funded status of these divisions will be equal in 30 years. In the event a true-up calculation does not project equalization between these divisions over a 30-year period, the Board shall recommend an adjustment of the DPS Division employer contribution rate to the Colorado General Assembly. The PCOP offset in the DPS Division will be a significant contributor to lowering the funded ratio, until such a time that the employer contribution rate is adjusted. An adjustment to the DPS Division employer contribution rate may result in a significant increase in the total contributions paid by the DPS Division employers.



### Prospective Contribution Information

The AED and the SAED are set to increase in future years, as described in the table shown below. With the passage of SB 10-001, the AED and the SAED can be adjusted based on the year-end funded status within a particular Division Trust Fund. If a particular Division Trust Fund reaches a funded status of 103 percent, a decrease in the AED and SAED is mandated and if it subsequently falls below a funded status of 90 percent, an increase is mandated. For the Local Government and Judicial Divisions, if the funded ratio reaches 90 percent and subsequently falls below 90 percent, an increase in the AED and SAED is mandated. Increases cannot exceed the maximum allowable limitations shown in the table below.

### Future AED and SAED Rates

PERIOD	STATE DIVISION TRUST FUND		SCHOOL DIVISION TRUST FUND		LOCAL GOVERNMENT DIVISION TRUST FUND		JUDICIAL DIVISION TRUST FUND		DENVER PUBLIC SCHOOLS DIVISION TRUST FUND <sup>1</sup>	
	AED	SAED	AED	SAED	AED	SAED	AED	SAED	AED	SAED
1/1/2013—12/31/2013	3.40%	3.00%	3.40%	3.00%	2.20%	1.50%	2.20%	1.50%	3.40%	3.00%
1/1/2014—12/31/2014	3.80%	3.50%	3.80%	3.50%	2.20%	1.50%	2.20%	1.50%	3.80%	3.50%
1/1/2015—12/31/2015	4.20%	4.00%	4.20%	4.00%	2.20%	1.50%	2.20%	1.50%	4.20%	4.00%
1/1/2016—12/31/2016	4.60%	4.50%	4.50%	4.50%	2.20%	1.50%	2.20%	1.50%	4.50%	4.50%
1/1/2017—12/31/2017	5.00%	5.00%	4.50%	5.00%	2.20%	1.50%	2.20%	1.50%	4.50%	5.00%
1/1/2018—12/31/2018	5.00%	5.00%	4.50%	5.50%	2.20%	1.50%	2.20%	1.50%	4.50%	5.50%
Maximum allowable limitations	5.00%	5.00%	4.50%	5.50%	5.00%	5.00%	5.00%	5.00%	4.50%	5.50%

<sup>1</sup> DPS Division employers are permitted to reduce the AED and SAED by the PCOP offset, as specified in C.R.S. § 24-51-412 *et seq.*

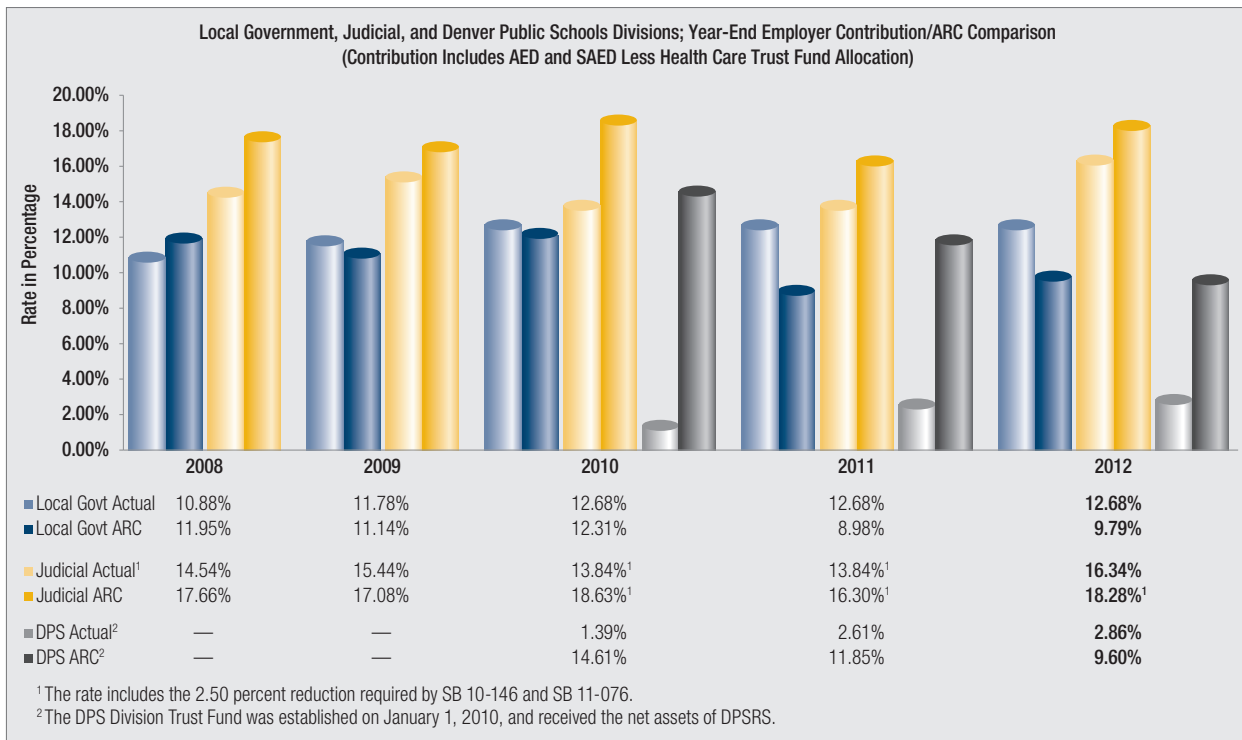
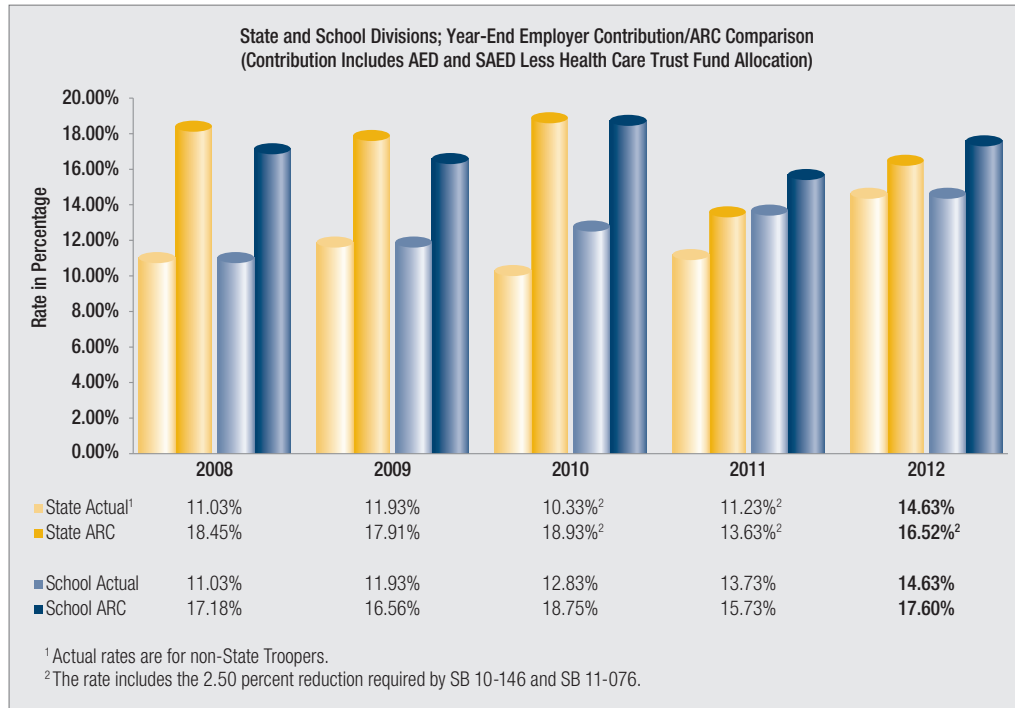
Based on the current covered payroll for the State Division, School Division, and the DPS Division, the annual AED and SAED increase would cause contributions to grow annually by \$21,500, \$34,400, and \$4,600, respectively. If the future increases in the AED and SAED are not made, it could result in significant underfunding of the plans and impact the ability to make future benefit payments. The shift of the State and Judicial Divisions’ employer contributions to member contributions, as required by SB 10-146 and SB 11-076, negatively affects the stated goal of SB 10-001 for those divisions. The actuarial liabilities in the State and Judicial Divisions are estimated to increase by \$17,000 and \$100, respectively, by the rate swap required in these bills.

## Management's Discussion and Analysis (Unaudited)

(In Thousands of Dollars)

### Annual Required Contribution (ARC)

#### ARC History





## Management's Discussion and Analysis (Unaudited)

### *ARC Deficiency/(Excess)*

The Annual Required Contribution (ARC) calculation is based on an assumed 8.0 percent investment rate of return and discount rate. In 2012, the actual contributions, as set in statute, were \$143.4 million less than the ARC as calculated by the actuaries. Even with SB 10-001, the ARC deficiency is expected to continue until statutory benefit and contribution changes are fully implemented. However, it should be noted, the significant decrease in the annual deficiency during the past two years is due to the benefit and funding changes set forth in SB 10-001. During the past 10 years, this shortfall in funding without adjustment for investment earnings to the Division Trust Funds has been \$3.4 billion. The table below shows the yearly ARC shortfall (excess) by fund for the past five years.

#### Yearly ARC Deficiency (Excess) (Amounts in Millions of Dollars)

VALUATION YEAR	2008	2009	2010	2011	2012
State Division	\$156.7	\$131.5	\$169.4	\$43.0	\$60.7
School Division	203.0	173.9	214.6	56.7	99.3
Local Government Division	0.8	(5.6)	(1.3)	(26.2)	(45.4)
Judicial Division	1.1	0.6	1.3	1.0	1.2
Denver Public Schools Division	—	—	67.1	46.5	35.6
Health Care	(9.4)	(8.8)	(9.4)	1.6	(7.0)
Denver Public Schools Health Care	—	—	(0.8)	(1.0)	(1.0)
<b>Total</b>	<b>\$352.2</b>	<b>\$291.6</b>	<b>\$440.9</b>	<b>\$121.6</b>	<b>\$143.4</b>

Note: The DPS Division and the DPS HCTF were established January 1, 2010.

For more detail on the ARC, see the Required Supplementary Information—Schedule of Employer Contributions for the Division Trust Funds and the Schedule of Contributions from Employers and Other Contributing Entities for the Health Care Trust Funds on pages 93–94.

### *Cumulative Employer Contribution Deficiency*

The following chart shows the net pension obligation (NPO) of all employers in each fund. The NPO is a measure that represents employers' cumulative contribution shortfall versus actuarially determined contributions adjusted to include investment earnings at the actuarial assumed investment rate of return. This accounts for the difference from the yearly ARC deficiency shown above. If the Division Trust Funds of PERA were single employer plans or an agent multi-employer plan, these amounts, allocated to each employer, would need to be reported as a liability on the employers' financial statements. As the employers are part of a cost-sharing multi-employer plan, they do not record these amounts as liabilities and only record a liability if they have not paid the statutorily required contribution rate. This table illustrates the overall impact of the employer contribution deficiency.

#### Cumulative Net Pension Obligation at End of Valuation Year (Amounts in Millions of Dollars)

VALUATION YEAR	2008	2009	2010	2011	2012
State Division	\$1,039.6	\$1,201.7	\$1,404.1	\$1,485.7	\$1,587.3
School Division	1,479.7	1,697.2	1,958.5	2,069.1	2,225.3
Local Government Division	79.6	76.4	77.2	53.1	9.1
Judicial Division	8.2	9.0	10.5	11.7	13.2
Denver Public Schools Division	—	—	67.1	115.5	154.2
<b>Total</b>	<b>\$2,607.1</b>	<b>\$2,984.3</b>	<b>\$3,517.4</b>	<b>\$3,735.1</b>	<b>\$3,989.1</b>

Note: A net OPEB obligation is not shown for the HCTF and the DPS HCTF as there has not been a cumulative ARC deficiency for these funds.

### *Future ARC*

Using the Governmental Accounting Standards Board (GASB) Statements No. 25 and No. 43 as a guide and based on the 2011 valuation, the 2013 annual required employer contributions, to meet a 30-year amortization period, would need to be as follows:

- State Division Trust Fund—20.01 percent
- School Division Trust Fund—19.79 percent
- Local Government Division Trust Fund—10.62 percent
- Judicial Division Trust Fund—21.53 percent
- Denver Public Schools Division Trust Fund—11.53 percent
- Health Care Trust Fund—1.24 percent
- Denver Public Schools Health Care Trust Fund—0.86 percent

## Management’s Discussion and Analysis (Unaudited)

(In Thousands of Dollars)

Additionally, based on the 2012 valuation, the 2014 annual required employer contributions, to meet a 30-year amortization period, would need to be as follows:

- State Division Trust Fund—20.45 percent
- School Division Trust Fund—19.65 percent
- Local Government Division Trust Fund—11.78 percent
- Judicial Division Trust Fund—20.07 percent
- Denver Public Schools Division Trust Fund—9.67 percent
- Health Care Trust Fund—1.32 percent
- Denver Public Schools Health Care Trust Fund—0.87 percent

### Analysis of Benefits and Expenses

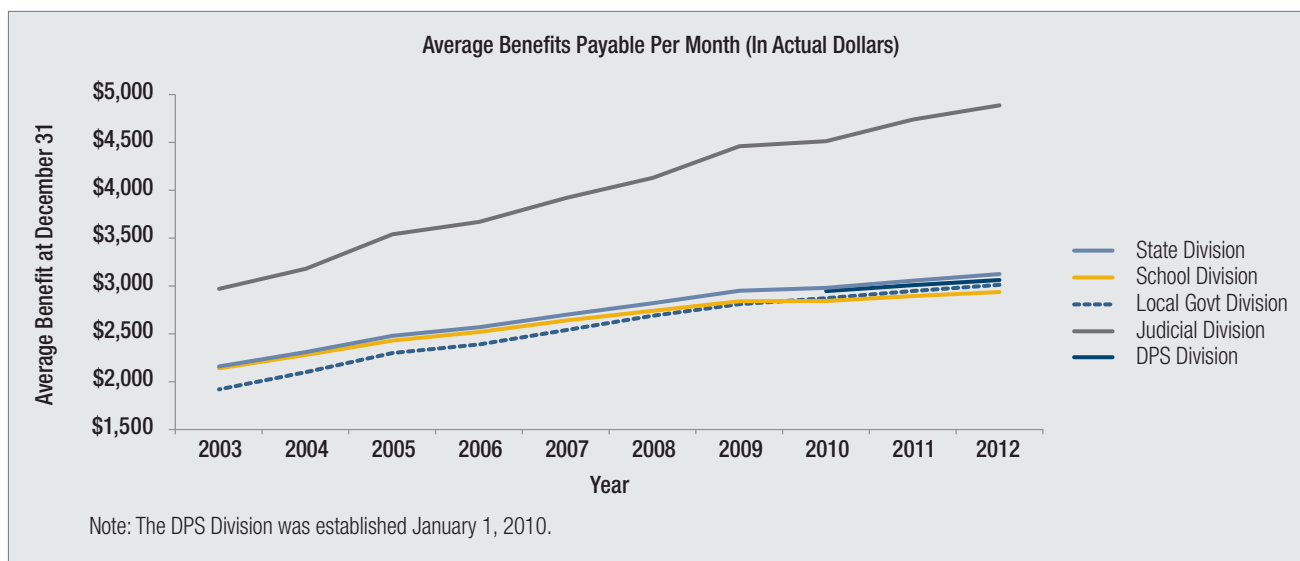
Basic Funding Equation:  $I+C = B+E$

### Summary of Benefits and Expenses

#### Total Deductions by Trust Fund

TRUST FUND	BENEFIT PAYMENTS	REFUNDS	DISABILITY PREMIUMS	ADMIN EXPENSES	OTHER	TOTAL DEDUCTIONS
State Division	\$1,231,922	\$69,221	\$1,570	\$8,568	\$3,911	\$1,315,192
School Division	1,832,643	77,154	2,522	16,086	9,157	1,937,562
Local Government Division	195,945	42,941	410	2,035	2,072	243,403
Judicial Division	17,606	605	27	61	22	18,321
Denver Public Schools Division	228,742	5,821	220	1,919	55	236,757
Health Care	218,768	—	—	13,514	—	232,282
Denver Public Schools Health Care	11,027	—	—	547	—	11,574
<b>2012 Total</b>	<b>\$3,736,653</b>	<b>\$195,742</b>	<b>\$4,749</b>	<b>\$42,730</b>	<b>\$15,217</b>	<b>\$3,995,091</b>
<b>2011 Total</b>	<b>\$3,537,615</b>	<b>\$176,244</b>	<b>\$5,010</b>	<b>\$42,121</b>	<b>\$9,396</b>	<b>\$3,770,386</b>
<b>2010 Total</b>	<b>\$3,364,830</b>	<b>\$173,931</b>	<b>\$5,296</b>	<b>\$42,966</b>	<b>\$11,468</b>	<b>\$3,598,491</b>
<b>2009 Total<sup>1</sup></b>	<b>\$2,992,743</b>	<b>\$149,004</b>	<b>\$5,812</b>	<b>\$36,307</b>	<b>\$8,561</b>	<b>\$3,192,427</b>
<b>2008 Total<sup>1</sup></b>	<b>\$2,792,007</b>	<b>\$140,594</b>	<b>\$5,266</b>	<b>\$35,415</b>	<b>\$11,577</b>	<b>\$2,984,859</b>

<sup>1</sup> Does not include the DPS Division Trust Fund and the DPS HCTF prior to 2010.



## Management's Discussion and Analysis (Unaudited)

(In Thousands of Dollars)

Average Monthly Benefit<sup>1</sup> (In Actual Dollars)

YEAR	STATE DIVISION	SCHOOL DIVISION	LOCAL GOVERNMENT DIVISION	JUDICIAL DIVISION	DENVER PUBLIC SCHOOLS DIVISION
2008	\$2,820	\$2,740	\$2,692	\$4,134	\$—
2009	2,950	2,841	2,807	4,457	—
2010	2,980	2,845	2,873	4,617	2,947
2011	3,056	2,895	2,948	4,739	3,009
2012	3,124	2,939	3,007	4,889	3,064

<sup>1</sup> Most employees working for a PERA-affiliated employer do not earn Social Security benefits.

## Ratio of Active Members to Retirees and Beneficiaries (As of December 31)

YEAR	STATE DIVISION	SCHOOL DIVISION	LOCAL GOVERNMENT DIVISION	JUDICIAL DIVISION	DENVER PUBLIC SCHOOLS DIVISION
2008	1.78	2.58	3.95	1.12	—
2009	1.73	2.51	3.45	1.09	—
2010	1.69	2.33	3.18	1.08	2.12 <sup>1</sup>
2011	1.65	2.21	3.02	1.05	2.15
2012	1.61	2.14	2.05 <sup>2</sup>	1.02	2.17

<sup>1</sup> The ratio increased from the 2009 DPSRS ratio of 1.30 due to the hourly and part-time staff of DPS becoming members of the DPS Division at PERA as required by SB 09-282.

<sup>2</sup> The rate decreased due to the termination of affiliation with PERA by Memorial Health System (see "Other Changes" below).

By itself, a declining ratio of actives to retirees and beneficiaries does not pose a problem to a Division Trust Fund's actuarial condition. However, to the extent that a plan is underfunded, a low or declining ratio of actives to retirees and beneficiaries, coupled with increasing life expectancy, can complicate the Division Trust Fund's ability to move toward full funding, as fewer active, contributing workers, relatively, are available to amortize the unfunded liability.

## Ratio of Benefit Payments to Contributions

TRUST FUND	EMPLOYER CONTRIBUTIONS	MEMBER CONTRIBUTIONS	TOTAL CONTRIBUTIONS	BENEFIT PAYMENTS	RATIO OF BENEFITS/CONTRIBUTIONS				
					2012	2011	2010	2009	2008
State Division	\$335,073	\$227,058	\$562,131	\$1,231,922	2.2	2.2	2.2	2.2	2.2
School Division	573,586	313,923	887,509	1,832,643	2.1	2.0	2.0	2.0	2.0
Local Government Division	86,113	54,827	140,940	195,945	1.4	1.2	1.1	1.1	1.0
Judicial Division	5,922	3,628	9,550	17,606	1.8	1.8	1.7	1.7	1.7
Denver Public Schools Division	14,703	41,124	55,827	228,742	4.1	4.2	5.0	—	—

## Other Changes

*Memorial Health System*

Effective October 1, 2012, Memorial Health System (Memorial) terminated its affiliation with PERA and employees of Memorial were no longer eligible to participate in PERA. The termination of Memorial arises from the 30-year lease of Memorial to University of Colorado Health (UCH) and its related entities. The termination had a significant effect on the Local Government Division Trust Fund during 2012, which can be seen in the following demographic and financial statistics:

	LOCAL GOVERNMENT DIVISION 12/31/2011	LOCAL GOVERNMENT DIVISION 12/31/2012	CHANGE AMOUNT	MEMORIAL 12/31/2011	MEMORIAL 12/31/2012	CHANGE AMOUNT
<b>Active members</b>						
Total active members	16,065	12,097	(3,968)	4,201	—	(4,201)
Total-covered salary	\$718,169	\$523,668	(\$194,501)	\$210,122	\$—	(\$210,122)
<b>Inactive members</b>						
Total non-vested inactive members	17,725	20,104	2,379	2,343	3,950	1,607
Total vested inactive members	1,436	3,075	1,639	544	2,140	1,596
<b>Retirees and beneficiaries</b>						
Total retirees and beneficiaries	5,320	5,901	581	836	1,176	340
Total annual benefit amount	\$184,867	\$209,574	\$24,707	\$28,570	\$41,235	\$12,665

## Management's Discussion and Analysis (Unaudited)

(In Thousands of Dollars)

ACTIVITY DURING	LOCAL GOVERNMENT DIVISION 2011	LOCAL GOVERNMENT DIVISION 2012	CHANGE AMOUNT	MEMORIAL 2011	MEMORIAL 2012	CHANGE AMOUNT
<b>Active members</b>						
Total employer contributions	\$91,780	\$86,113	(\$5,667)	\$29,596	\$22,069	(\$7,527)
Total member contributions	\$58,590	\$54,827	(\$3,763)	\$17,080	\$12,708	(\$4,372)
<b>Refunds</b>						
Total refund amount	\$22,686	\$42,941	\$20,255	\$9,535	\$26,997	\$17,462
<b>Purchased service</b>						
Total purchase dollars	\$3,902	\$13,927	\$10,025	\$1,771	\$10,611	\$8,840
<b>Retirements</b>						
Total retirements	320	679	359	83	350	267
Total annual benefit amount	\$11,120	\$23,433	\$12,313	\$2,845	\$12,357	\$9,512

PERA's position is that the termination of affiliation provisions of the PERA statutes, specifically C.R.S. §§ 24-51-313 to 321 apply to the Memorial transaction. PERA's position is that Memorial must pay its share of the current unfunded liability in PERA's Local Government Division and PERA's Health Care Trust Fund because it has terminated its affiliation with PERA.

The City of Colorado Springs and Memorial's position is that the termination of affiliation provisions of the PERA statutes do not apply to this transaction and PERA is not owed anything as a result of the Memorial transaction.

The actuarial valuation results for the Local Government Division Trust Fund reflect the termination of Memorial, which was formerly the largest employer within the Local Government Division Trust Fund. For purposes of the December 31, 2012, actuarial valuation, no additional incoming dollars were assumed added as there is ongoing litigation regarding potential dollars owed to the Local Government Division Trust Fund and the PERA Health Care Trust Fund due to the termination. (See Note 7 for additional disclosure related to the litigation.) Sufficient funds to discharge the liability in the amount of \$259,000 have been placed in a court-supervised escrow account pending resolution of the litigation.

PERA estimates that Memorial's share of the unfunded liability, with interest, in the Local Government Division Trust Fund and the Health Care Trust Fund is between \$200,000 and \$250,000. If the amount owed to PERA (as determined by PERA's actuaries) is paid, the reserves will be adequate to maintain current benefits payable to benefit recipients and to preserve the vested rights of inactive members. If the amount is paid, Memorial's termination of affiliation will not have an adverse financial impact on the net position or actuarial soundness of the Local Government Division Trust Fund. If Memorial is allowed to withdraw from the fund without paying its share of the unfunded liability, all other Local Government Division Trust Fund employers will absorb Memorial's share of the unfunded liability.

### ***Purchased Service***

Purchased service increased from \$31,441 for 2011 to \$49,475 for 2012 due to members voluntarily purchasing more service credit in 2012 including an \$8,840 increase from Memorial members prior to their termination.

### ***Refunds***

For the year ended December 31, 2012, refunds increased \$19,498 for the Division Trust Funds largely due to the increases in refunds related to the Memorial termination.

### ***Investment Settlements and Other Liabilities***

For the year ended December 31, 2012, investment settlements and other liabilities increased by \$27,814. The increase was largely due to a \$10,390 increase in investment management fees, \$5,249 increase in pending investment purchases, and an \$8,408 increase in member refunds.

### ***Other Additions***

For the year ended December 31, 2012, the Division Trust Funds other additions increased by \$4,725 and other deductions increased by \$5,821. The change was primarily due to the recording of the interfund transfers at retirement as an addition in 2012 for the Local Government, Judicial, and Denver Public Schools Division Trust Funds rather than a negative other deduction as they had been recorded in prior years. A supplementary schedule for other additions and other deductions is included in the Financial Section and can be found on page 101.

### ***Life Insurance Reserve Claims***

Life insurance claims decreased from \$547 in 2011 to \$62 in 2012 due to a change in the administrator of the reserve and the method of calculating the premium expense. Previously, the basis for the premium expense was claims and expenses incurred net of earnings. Currently, the basis for the premium expense is the number of covered lives, age, and the amount of insurance coverage.

## Management's Discussion and Analysis (Unaudited)

### Actuarial Summary

The December 31, 2012, actuarial valuation was prepared by Cavanaugh Macdonald Consulting, LLC. Actuarial valuations based on a set of assumptions examine a fund's assets as compared to actuarial liabilities, compare past and future trends, and determine the ARC rates required of each employer in order to pay current and future benefits and compares it to the statutory contribution rate. Actuarial assumptions are studied at least every five years and are set by the Board. The last experience study was completed in 2012.

Based on the 2012 experience analysis, the following assumptions changes were made and used in the current actuarial valuation:

- The price inflation assumption was lowered from 3.75 percent to 3.50 percent.
- The investment return assumption was changed to be net of investment expenses only, with administrative expenses being recognized by an additional amount added to the normal cost contribution rate. That amount has been estimated as 0.35 percent of payroll for the Division Trust Funds.
- The wage inflation assumption was lowered from 4.50 percent to 4.25 percent.
- Withdrawal rates from active service for each division were revised to more closely reflect actual experience.
- The rates of post-retirement deaths for healthy lives were changed to the RP-2000 Combined Mortality Table rates projected with Scale AA to 2020 (set back one year for males and two years for females).
- The rates of pre-retirement mortality (deaths in active service) were revised to match the post-retirement mortality table. However, the percentages of the post-retirement mortality tables were changed to 55 percent for males and 40 percent for females.
- The rates of disability from active service were lowered slightly to more closely reflect actual experience.
- The RP-2000 Disability Mortality Table was retained. The set-back applied to the male disability mortality rates remains unchanged at two years; however, the set-back applied to the female mortality rates was changed from five years to two years.
- The rates of early reduced retirement for all divisions were decreased and the rates for unreduced retirements were increased to more closely reflect actual experience.
- The rates of participation in PERACare for current participants of the PERA Divisions and the DPS Division, future participants of the PERA Divisions and the DPS Division, and DPS Division deferred vested members have been revised to more closely reflect actual experience.
- Initial per capita health care costs for PERACare enrollees under the PERA benefit structure who are age 65 and older and are not eligible for premium-free Medicare Part A benefits have been updated to reflect the change in costs for the 2013 plan year.
- The initial per capita payments estimated to be made by the Centers for Medicare & Medicaid Services (CMS) under the Retiree Drug Subsidy Program (RDS) have been updated based upon the most recent attestation of actuarial equivalence.
- The assumed rate of inflation for health care costs for Medicare Part A premiums and RDS payments have been revised to reflect the current expectation of future increases.
- The last year in which the prescription drug benefit provided to those members eligible for Medicare Part D is deemed to be Actuarially Equivalent has been increased to 2023.
- The percentage of PERACare enrollees who will become age 65 and older and are assumed to not qualify for premium-free Medicare Part A coverage have been revised to more closely reflect actual experience.
- The average age difference between covered male and female spouses has been updated to reflect actual experience.

### *Health Care Trust Fund Actuarial Liabilities*

The HCTF and the DPS HCTF are defined benefit OPEB plans with the purpose of subsidizing PERACare, PERA's health benefits program. Participation in the HCTF and the DPS HCTF is voluntary pursuant to C.R.S. § 24-51-1201. Employer contributions and investment earnings on the assets of the plans pay for the costs. In addition, any employer, as defined by C.R.S. § 24-51-101 (20), may elect to provide health care coverage through PERACare for its employees who are members.

The HCTF and the DPS HCTF provide a health care premium subsidy based upon the benefit structure under which a member retires and the member's years of service credit. There is an allocation of the premium subsidy between the trust funds for members who retire with service credit in the DPS Division and one or more of the other divisions. The basis for the allocation of the premium subsidy is the percentage of the member contribution balance from each division as it relates to the total member contribution account balance.

## Management's Discussion and Analysis (Unaudited)

In general, the actuarial accrued liabilities of the HCTF and the DPS HCTF consists of the following three types of benefits:

- A service-based monthly premium subsidy.
- A subsidy for members not eligible for premium-free Medicare Part A coverage.
- A premium reduction for enrollees covered under plans receiving the RDS.

C.R.S. § 24-51-1204 and § 24-51-1206 specify the eligibility for enrollment and the amount of subsidy available, respectively under the following benefit structures. The RDS is valued in the same manner regardless if the enrollee is under the PERA or the DPS benefit structure, as indicated below. The plan actuary determines the costs relating to the subsidies provided by the HCTF and the DPS HCTF and the results are contained within the annual actuarial valuation report. Currently, all participating employers are statutorily required to contribute 1.02 percent of covered payroll to fund these benefits.

**PERA Benefit Structure:** All PERA benefit structure benefit recipients enrolled in PERACare are eligible for the health care subsidies as described below.

The maximum service-based premium subsidy is \$230 (actual dollars) per month for benefit recipients who are under 65 years of age and who are not entitled to Medicare; the maximum service-based subsidy is \$115 (actual dollars) per month for benefit recipients who are 65 years of age or older or who are under 65 years of age and entitled to Medicare. The basis for the maximum service-based subsidy, in each case, is for benefit recipients with retirement benefits based on 20 or more years of service credit. For those with less service credit, the subsidy is reduced by 5 percent for each year less than 20 years. The benefit recipient pays the remaining portion of the premium to the extent the subsidy does not cover the entire amount.

For benefit recipients who have not participated in Social Security and who are not otherwise eligible for premium-free Medicare Part A for hospital-related services, C.R.S. § 24-51-1206(4) provides an additional subsidy. According to the statute, the HCTF cannot charge premiums to benefit recipients without Medicare Part A that are greater than premiums charged to benefit recipients with Part A for the same plan option, coverage level, and service credit. Currently, for each individual PERACare enrollee, the total premium for Medicare coverage is determined assuming plan participants have both Medicare Part A and Part B and the difference in premium cost is paid by the HCTF or the DPS HCTF on behalf of benefit recipients who are not covered by Medicare Part A.

**DPS Benefit Structure:** All DPS benefit structure retirees enrolled in PERACare are eligible for the health care subsidies as described below. Upon the death of the retiree, no further subsidy is payable.

The maximum service-based premium subsidy is \$230 (actual dollars) per month for retirees who are under 65 years of age and who are not entitled to Medicare; the maximum service-based subsidy is \$115 (actual dollars) per month for retirees who are 65 years of age or older or who are under 65 years of age and entitled to Medicare. The basis for the maximum subsidy, in each case, is for retirees with retirement benefits based on 20 or more years of service credit. For those with less service credit, the subsidy is reduced by 5 percent for each year less than 20 years. The retiree pays the remaining portion of the premium to the extent the subsidy does not cover the entire amount.

For retirees who have not participated in Social Security and who are not otherwise eligible for premium-free Medicare Part A for hospital-related services, the DPS HCTF or the HCTF pays an alternate service-based premium subsidy. Each individual retiree meeting these conditions receives the maximum \$230 (actual dollars) per month subsidy reduced appropriately for service less than 20 years, as described above.

**Retiree Drug Subsidy:** For members under the PERA or the DPS benefit structure who elect coverage in a plan option that produces an RDS, the HCTF or DPS HCTF has reduced the full cost of the premium to the member by the estimated RDS. The RDS is payable to the HCTF or the DPS HCTF under Part D of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA). GASB standards do not allow for future assumed RDS payments to be used as a direct offset of premiums for future liabilities. Therefore, a liability for these payments has been included in the total HCTF or DPS HCTF liability. Plan options producing an RDS in 2012 are the Self-Funded Medicare Supplement plans and the Rocky Mountain Health Plan's Medicare HMO. While GASB standards require the additional cost to be included in our liability, if the RDS payment did not exist, this cost would be borne by the member in the plan and would not be a cost of the plan per current Colorado statute.

### *Annual Actuarial Valuation Statistics*

As of December 31, 2012, the Funded Ratio, the Unfunded Actuarial Accrued Liabilities (UAAL), the ARC for 2014 as a percentage of covered payroll, and the amortization periods with current funding for each trust fund are shown in the table below. The results in this table are based on parameters set by GASB and do not fully consider future contribution rate increases nor the impact of reduced benefits for those hired in the future as provided for in Colorado law.

## Management's Discussion and Analysis (Unaudited)

(In Thousands of Dollars)

## Actuarial Statistics

TRUST FUND	FUNDED RATIO	UAAL	ARC	ARC AMORTIZATION PERIOD	AMORTIZATION PERIOD CURRENT YEAR FUNDING
State Division	59.2%	\$8,652,820	20.45%	30 Years	53 Years
School Division	62.1%	12,352,459	19.65%	30 Years	49 Years
Local Government Division	74.5%	1,058,900	11.78%	30 Years	27 Years
Judicial Division	73.1%	88,090	20.07%	30 Years	Infinite
Denver Public Schools Division	84.0%	558,854	9.67%	30 Years	Infinite
Total Defined Benefit Plans <sup>1</sup>		22,711,123			
Health Care	16.5%	1,438,398	1.32%	30 Years	66 Years
Denver Public Schools Health Care	18.6%	63,226	0.87%	30 Years	21 Years
Total Other Postemployment Benefit Plans <sup>1</sup>		1,501,624			
<b>Total<sup>1</sup></b>		<b>\$24,212,747</b>			

<sup>1</sup> The data in this table has been aggregated for informational purposes. The assets of each trust fund are for the sole purpose of its members and cannot be used by another fund.

For calculation of the ARC rate, the amortization period used is 30 years, which is the maximum period permitted by GASB. The amortization period is the number of years it will take to pay off the UAAL, given the current funding and benefits, for each division based on a set of assumptions. See the Required Supplementary Information and the accompanying notes on pages 91–98 for additional information.

The table below shows the amortization periods adjusted to include the future additional contributions of the AED and the SAED. For the DPS Division, no adjustment has been made for the current PCOP offset. However, considering anticipated reductions in the future PCOP offset to DPS employer contribution requirements to the DPS Division for the cost of certain PCOPs as currently structured, the amortization period is expected to be below 30 years. Colorado statutes call for a “true-up” in 2015, and every five years following, with the expressed purpose of adjusting the total DPS employer contribution rate to ensure equalization of the ratio of UAAL over payroll between the DPS and School Divisions at the end of the 30-year period beginning January 1, 2010.

## Amortization Periods With Future AED and SAED Increases

TRUST FUND	AMORTIZATION PERIOD WITH FUTURE AED AND SAED INCREASES
State Division	36 Years
School Division	34 Years
Local Government Division	27 Years
Judicial Division	Infinite
Denver Public Schools Division	Infinite
Health Care	66 Years
Denver Public Schools Health Care	21 Years

The amortization periods with future AED and SAED increases do not include the full effect of the 2006 and 2010 legislation. The legislation includes plan changes that will lower the normal cost for future new hires and will allow more of the employer's contribution to be used to amortize past service costs earned. The future AED and SAED increases have not been taken into consideration in the calculation of the ARC as defined in GASB Statement 25 or in the amortization period based on the current year funding levels.

C.R.S. § 24-51-211 states that the amortization period of 30 years shall be deemed actuarially sound. At the end of 2012, given the current contribution rates, all funds except for the Local Government Division and the Denver Public Schools Health Care Trust Fund exceeded the 30-year amortization period.

As stated by Cavanaugh Macdonald Consulting, LLC, in the Report of the Independent Actuary on pages 123–126 in the Actuarial Section of the CAFR:

“The employer contribution rate, together with Medicare Part D Retiree Drug Subsidy receipts and anticipated future employee growth and service purchase transfers, is sufficient to eventually finance the PERA and DPS Health Care Trust Funds benefits in accordance with GASB 43 and 45.

The Local Government Division employer contribution rates are sufficient to finance the promised benefits under GASB 25 and 27. Considering the offsets of PCOP Credits as a percentage of payroll, applicable to the DPS Division only, the Denver Public Schools Division employer contribution rate is currently sufficient to finance the promised benefits and eventually meet the required contribution levels under GASB 25 and 27. Considering the addition of the AED and SAED contributions and projected reductions in liability due to benefit structure changes for newer hires, the State and School Divisions' employer contribution rates are expected to be sufficient to finance the promised benefits. The total employer contributions, combined with projected reductions in liability due to benefit structure changes for newer hires, are expected to fund the Judicial Division.”

## Management's Discussion and Analysis (Unaudited)

(In Thousands of Dollars)

At December 31, 2012, and December 31, 2011, PERA had the following funded status for all of its Division Trust Funds and the HCTFs.

### Funded Status for Colorado PERA Division Trust Funds and the Health Care Trust Funds

	MARKET VALUE OF ASSETS		ACTUARIAL VALUE OF ASSETS	
	12/31/2011	12/31/2012	12/31/2011	12/31/2012
<b>STATE DIVISION TRUST FUND<sup>1</sup></b>				
Actuarial accrued liability	\$20,826,543	\$21,191,495	\$20,826,543	\$21,191,495
Assets held to pay those liabilities <sup>2</sup>	12,001,770	12,766,459	12,010,045	12,538,675
Unfunded actuarial accrued liability	8,824,773	8,425,036	8,816,498	8,652,820
Funded Ratio	57.6%	60.2%	57.7%	59.2%
<b>SCHOOL DIVISION TRUST FUND<sup>1</sup></b>				
Actuarial accrued liability	\$31,986,199	\$32,619,033	\$31,986,199	\$32,619,033
Assets held to pay those liabilities <sup>2</sup>	19,247,853	20,636,677	19,266,110	20,266,574
Unfunded actuarial accrued liability	12,738,346	11,982,356	12,720,089	12,352,459
Funded Ratio	60.2%	63.3%	60.2%	62.1%
<b>LOCAL GOVERNMENT DIVISION TRUST FUND<sup>1</sup></b>				
Actuarial accrued liability	\$4,160,015	\$4,157,621	\$4,160,015	\$4,157,621
Assets held to pay those liabilities <sup>2</sup>	2,875,756	3,154,897	2,882,691	3,098,721
Unfunded actuarial accrued liability	1,284,259	1,002,724	1,277,324	1,058,900
Funded Ratio	69.1%	75.9%	69.3%	74.5%
<b>JUDICIAL DIVISION TRUST FUND<sup>1</sup></b>				
Actuarial accrued liability	\$319,437	\$326,897	\$319,437	\$326,897
Assets held to pay those liabilities <sup>2</sup>	220,963	242,877	221,515	238,807
Unfunded actuarial accrued liability	98,474	84,020	97,922	88,090
Funded Ratio	69.2%	74.3%	69.3%	73.1%
<b>DENVER PUBLIC SCHOOLS DIVISION TRUST FUND<sup>1</sup></b>				
Actuarial accrued liability	\$3,442,527	\$3,495,549	\$3,442,527	\$3,495,549
Assets held to pay those liabilities <sup>2</sup>	2,818,096	2,992,217	2,804,706	2,936,695
Unfunded actuarial accrued liability	624,431	503,332	637,821	558,854
Funded Ratio	81.9%	85.6%	81.5%	84.0%
<b>HEALTH CARE TRUST FUND<sup>1</sup></b>				
Actuarial accrued liability	\$1,710,790	\$1,723,495	\$1,710,790	\$1,723,495
Assets held to pay those liabilities <sup>2</sup>	281,786	291,737	282,228	285,097
Unfunded actuarial accrued liability	1,429,004	1,431,758	1,428,562	1,438,398
Funded Ratio	16.5%	16.9%	16.5%	16.5%
<b>DENVER PUBLIC SCHOOLS HEALTH CARE TRUST FUND<sup>1</sup></b>				
Actuarial accrued liability	\$77,475	\$77,669	\$77,475	\$77,669
Assets held to pay those liabilities <sup>2</sup>	14,375	14,843	14,448	14,443
Unfunded actuarial accrued liability	63,100	62,826	63,027	63,226
Funded Ratio	18.6%	19.1%	18.6%	18.6%
<b>ALL DIVISION TRUST FUNDS, HCTF, AND DPS HCTF<sup>1,3</sup></b>				
Actuarial accrued liability	\$62,522,986	\$63,591,759	\$62,522,986	\$63,591,759
Assets held to pay those liabilities <sup>2,4</sup>	37,460,599	40,099,707	37,481,743	39,379,012
Unfunded actuarial accrued liability	25,062,387	23,492,052	25,041,243	24,212,747
Funded Ratio	59.9%	63.1%	59.9%	61.9%

<sup>1</sup> The above funded status is based upon an assumed rate of return on investments of 8.0 percent and an assumed rate of 8.0 percent to discount the liabilities to be paid in the future to a value as of December 31, 2011, and 2012.

<sup>2</sup> The market value of assets is the fair value of the investments. The actuarial value of assets calculates the value of the assets by spreading any market gains or losses above or below the assumed rate of return over four years.

<sup>3</sup> The data in this table has been aggregated for informational purposes. The assets of each trust fund are for the sole purpose of its members and cannot be used by another fund.

<sup>4</sup> In aggregate, the market value of the assets as of December 31, 2012, is \$720,695 more than the value of assets calculated by the actuaries, as they are recognizing the gains and losses in value over four years, rather than in the year they occurred. The remaining gains and (losses) to be smoothed for 2010 are \$507,439, for 2011 are (\$1,147,414), and for 2012 are \$1,360,670.



## Management's Discussion and Analysis (Unaudited)

(In Thousands of Dollars)

### Actuarial Trend Information

#### Funded Ratio

The funded ratio for the plan is determined by dividing the actuarial value of assets by the actuarial accrued liability. The actuarial value of assets is not the current market value but a market-related value, as mandated by GASB, which smoothes changes in the market value over four years. The actuarial value of the assets as of December 31, 2012, was \$39,379,012 compared to a market value of assets of \$40,099,707, and to the actuarial accrued liability of \$63,591,759. The funded ratio for each of the funds, based on the actuarial value of assets, at December 31 for each of the last five years is shown below.

TRUST FUND	2008	2009	2010	2011	2012
State Division	67.9%	67.0%	62.8%	57.7%	59.2%
School Division	70.1%	69.2%	64.8%	60.2%	62.1%
Local Government Division	76.4%	76.2%	73.0%	69.3%	74.5%
Judicial Division	80.2%	77.3%	75.0%	69.3%	73.1%
Denver Public Schools Division	—	—	88.9%	81.5%	84.0%
Total Defined Benefit Plans <sup>1</sup>	69.8%	68.9%	66.1%	61.2%	63.2%
Health Care	18.7%	14.8%	17.5%	16.5%	16.5%
Denver Public Schools Health Care	—	—	17.9%	18.6%	18.6%
Total Other Postemployment Benefit Plans <sup>1</sup>	18.7%	14.8%	17.6%	16.6%	16.6%
<b>Total all funds<sup>1</sup></b>	<b>68.5%</b>	<b>67.2%</b>	<b>64.7%</b>	<b>59.9%</b>	<b>61.9%</b>

<sup>1</sup> The data in this table has been aggregated for informational purposes. The assets of each trust fund are for the sole purpose of its members and cannot be used by another fund.

The Board's Statement of Funding Policy dated November 16, 2007, is as follows:

"To secure promised and mandated benefits, the funding goal of the Colorado Public Employees' Retirement Association's defined benefit and retiree health care plans is to maintain employer and member contributions into the trust funds sufficient to accumulate assets over a member's term of employment to fully finance the benefits members receive throughout retirement by achieving and maintaining a minimum 100 percent funded ratio of assets to accrued actuarial liabilities. The Board's minimum 100 percent funded ratio goal over time avoids externalizing the costs of amortizing unfunded accrued liabilities onto others in the future, and provides for fairness and intergenerational equity for taxpayers, employers and employees with respect to the costs of providing benefits."

The funded ratios listed above give an indication of how well this objective has been met to date. A larger funded ratio indicates that a plan is better funded. As an example, for every \$1.00 of the actuarially determined benefits earned for the School Division Trust Fund as of December 31, 2012, approximately \$0.62 of assets are available for payment based on the actuarial value of assets. These benefits earned will be payable over the life span of members after their retirement and therefore, it is not necessary that the actuarially determined benefits equal the actuarial value of assets at any given moment in time.

#### Sensitivity of Actuarial Valuation to Changes in Assumed Investment Rate of Return and Discount Rate

The most important long-run driver of a pension plan is investment income. Over the last 30 years, investment income at PERA represented 59 percent of the inflows into the plans. Currently, the investment rate of return and discount rate assumption are 8.0 percent. The investment return assumption and the discount rate for liabilities, as mandated by GASB, should be based on an estimated long-term investment yield for the plan, with consideration given to the nature and mix of current and expected plan investments and the basis used to determine the actuarial value of assets.

Each year for the past three years, the Board has participated in an actuarial assumption workshop to ensure understanding and to provide for the adoption of all economic assumptions under the guidance provided by Actuarial Standard of Practice (ASOP) No. 27, Selection of Economic Assumptions for Measuring Pension Obligations, as prescribed by the Actuarial Standards Board. During this workshop, Cavanaugh Macdonald reported the results of their lognormal simulation modeling. Considering historical investment and economic data with projected inflation and asset class returns, the modeling process provides a best-estimate range of future investment returns over a 50-year period given PERA's targeted asset allocation and expected investment expenses. These ranges are used to produce assumptions regarding future inflation, productivity, and real rates of return for asset classes above inflation. Using the "Building Block Method," the assumed inflation rate is combined with the assumed real rate of return, net of investment expenses, to form the overall investment rate assumption. The mean overall investment rate of return based on this modeling process was 8.74 percent. The one standard deviation range around the mean was 6.77 percent to 10.75 percent, which represents 68.2 percent of the possible outcomes. The two standard deviations range around the mean was 4.90 percent to 12.74 percent, which represents 95.4 percent of the possible outcomes.

To understand the importance of the investment rate of return, which is used to discount the actuarial liabilities of PERA, a one and one-half, and one-half percent fluctuation in the investment rate of return and discount rate would change the funded ratio, UAAL, and ARC (for contributions for the fiscal year ended December 31, 2014) as shown on the tables on the next two pages.

## Management's Discussion and Analysis (Unaudited)

(In Thousands of Dollars)

### Investment Return Assumption (Discount Rate) Equal to 6.5 Percent

TRUST FUND	ACTUARIAL VALUE OF ASSETS			MARKET VALUE OF ASSETS
	FUNDED RATIO	UAAL	ARC	UAAL
State Division	49.8%	\$12,513,540	28.20%	\$12,154,920
School Division	52.0%	18,527,272	28.43%	17,946,490
Local Government Division	61.9%	1,885,810	20.47%	1,797,778
Judicial Division	52.2%	143,381	29.83%	136,859
Denver Public Schools Division	71.0%	1,185,271	18.35%	1,099,060
Total Defined Benefit Plans <sup>1</sup>		34,255,274		33,135,107
Health Care	14.3%	1,712,263	1.40%	1,705,623
Denver Public Schools Health Care	16.3%	74,426	0.96%	74,026
Total Other Postemployment Benefit Plans <sup>1</sup>		1,786,689		1,779,649
<b>Total<sup>1</sup></b>		<b>\$36,041,963</b>		<b>\$34,914,756</b>

<sup>1</sup> The data in this table has been aggregated for informational purposes. The assets of each trust fund are for the sole purpose of its members and cannot be used by another fund.

### Investment Return Assumption (Discount Rate) Equal to 7.5 Percent

TRUST FUND	ACTUARIAL VALUE OF ASSETS			MARKET VALUE OF ASSETS
	FUNDED RATIO	UAAL	ARC	UAAL
State Division	56.0%	\$9,829,622	22.90%	\$9,558,227
School Division	58.7%	14,229,965	22.40%	13,789,636
Local Government Division	70.2%	1,309,592	14.55%	1,242,798
Judicial Division	69.3%	105,183	23.19%	100,295
Denver Public Schools Division	79.6%	749,579	12.37%	683,827
Total Defined Benefit Plans <sup>1</sup>		26,223,941		25,374,783
Health Care	15.8%	1,522,148	1.34%	1,515,507
Denver Public Schools Health Care	17.8%	66,664	0.90%	66,264
Total Other Postemployment Benefit Plans <sup>1</sup>		1,588,812		1,581,771
<b>Total<sup>1</sup></b>		<b>\$27,812,753</b>		<b>\$26,956,554</b>

<sup>1</sup> The data in this table has been aggregated for informational purposes. The assets of each trust fund are for the sole purpose of its members and cannot be used by another fund.

## Management's Discussion and Analysis (Unaudited)

(In Thousands of Dollars)

### Current Investment Return Assumption (Discount Rate) Equal to 8.0 Percent

TRUST FUND	ACTUARIAL VALUE OF ASSETS			MARKET VALUE OF ASSETS
	FUNDED RATIO	UAAL	ARC	UAAL
State Division	59.2%	\$8,652,820	20.45%	\$8,425,036
School Division	62.1%	12,352,459	19.65%	11,982,356
Local Government Division	74.5%	1,058,900	11.78%	1,002,724
Judicial Division	73.1%	88,090	20.07%	84,020
Denver Public Schools Division	84.0%	558,854	9.67%	503,332
Total Defined Benefit Plans <sup>1</sup>		22,711,123		21,997,468
Health Care	16.5%	1,438,398	1.32%	1,431,758
Denver Public Schools Health Care	18.6%	63,226	0.87%	62,826
Total Other Postemployment Benefit Plans <sup>1</sup>		1,501,624		1,494,584
<b>Total<sup>1</sup></b>		<b>\$24,212,747</b>		<b>\$23,492,052</b>

<sup>1</sup> The data in this table has been aggregated for informational purposes. The assets of each trust fund are for the sole purpose of its members and cannot be used by another fund.

### Investment Return Assumption (Discount Rate) Equal to 8.5 Percent

TRUST FUND	ACTUARIAL VALUE OF ASSETS			MARKET VALUE OF ASSETS
	FUNDED RATIO	UAAL	ARC	UAAL
State Division	62.4%	\$7,569,705	18.09%	\$7,385,534
School Division	65.7%	10,627,021	17.00%	10,327,144
Local Government Division	78.9%	829,155	9.07%	783,598
Judicial Division	76.8%	72,189	17.06%	68,936
Denver Public Schools Division	88.5%	381,786	6.96%	336,493
Total Defined Benefit Plans <sup>1</sup>		19,479,856		18,901,705
Health Care	17.3%	1,361,160	1.29%	1,354,520
Denver Public Schools Health Care	19.4%	60,045	0.85%	59,645
Total Other Postemployment Benefit Plans <sup>1</sup>		1,421,205		1,414,165
<b>Total<sup>1</sup></b>		<b>\$20,901,061</b>		<b>\$20,315,870</b>

<sup>1</sup> The data in this table has been aggregated for informational purposes. The assets of each trust fund are for the sole purpose of its members and cannot be used by another fund.

### Investment Return Assumption (Discount Rate) Equal to 9.5 Percent

TRUST FUND	ACTUARIAL VALUE OF ASSETS			MARKET VALUE OF ASSETS
	FUNDED RATIO	UAAL	ARC	UAAL
State Division	69.2%	\$5,649,681	13.57%	\$5,552,735
School Division	73.0%	7,578,786	12.01%	7,419,361
Local Government Division	88.1%	424,509	3.84%	400,189
Judicial Division	84.7%	43,529	11.25%	41,910
Denver Public Schools Division	97.7%	68,304	1.90%	43,470
Total Defined Benefit Plans <sup>1</sup>		13,764,809		13,457,665
Health Care	18.9%	1,223,684	1.27%	1,217,044
Denver Public Schools Health Care	21.0%	54,355	0.82%	53,955
Total Other Postemployment Benefit Plans <sup>1</sup>		1,278,039		1,270,999
<b>Total<sup>1</sup></b>		<b>\$15,042,848</b>		<b>\$14,728,664</b>

<sup>1</sup> The data in this table has been aggregated for informational purposes. The assets of each trust fund are for the sole purpose of its members and cannot be used by another fund.

Note: The net-of-fees annualized rate of return for the pooled investment assets was 2.6 percent for the past five years and 8.4 percent for the past 10 years. The 30-year annualized gross-of-fees rate of return for the pooled investment assets was 9.4 percent.

## Management's Discussion and Analysis (Unaudited)

### Current Year Actuarial Gains/(Losses)

To better understand why the UAAL changed for the year, a summary of the gains and losses in the actuarial liability for 2012 are shown in the table below by fund. Actuarial gains and losses are amortized over 30 years using an open amortization period as allowed by GASB. Typically, a valuation report should provide a gain/loss analysis that identifies the magnitude of actuarial gains and losses, based on variations between actual and assumed experience. A gain or loss occurs when the actual amount paid differs from the previous valuation.

AMOUNTS (IN MILLIONS OF DOLLARS)	STATE DIVISION	SCHOOL DIVISION	LOCAL GOVERNMENT DIVISION	JUDICIAL DIVISION	DENVER PUBLIC SCHOOLS DIVISION	HCTF	DENVER PUBLIC SCHOOLS HCTF
From differences between assumed and actual experience on liabilities							
Age and service retirements <sup>1</sup>	(\$9.3)	(\$31.0)	(\$13.3)	\$0.7	\$3.9	(\$1.6)	\$0.1
Disability retirements <sup>2</sup>	4.4	4.7	0.9	0.2	(0.3)	0.3	—
Deaths <sup>3</sup>	16.6	(31.1)	4.3	1.5	3.5	(0.3)	0.1
Withdrawals <sup>4</sup>	(41.3)	(80.8)	163.7	(0.1)	2.6	1.2	0.1
New members <sup>5</sup>	(60.3)	(61.0)	(11.3)	(2.8)	(24.6)	(4.0)	(0.6)
Pay increases <sup>6</sup>	106.9	248.6	12.4	4.1	13.3	—	—
Other <sup>7</sup>	(53.4)	(2.8)	(9.8)	(1.4)	(1.2)	22.0	1.0
Subtotal	(36.4)	46.6	146.9	2.2	(2.8)	17.6	0.7
From differences between assumed and actual experience on assets	341.3	542.6	77.3	5.9	95.3	8.1	0.2
From change in plan assumptions <sup>8</sup>	235.8	342.8	27.8	6.8	50.5	4.3	(0.8)
<b>Total actuarial gains/(losses) on 2012 activities</b>	<b>\$540.7</b>	<b>\$932.0</b>	<b>\$252.0</b>	<b>\$14.9</b>	<b>\$143.0</b>	<b>\$30.0</b>	<b>\$0.1</b>
<b>Total actuarial gains/(losses) on 2011 activities</b>	<b>(\$946.1)</b>	<b>(\$1,220.5)</b>	<b>(\$188.1)</b>	<b>(\$18.6)</b>	<b>(\$220.4)</b>	<b>(\$40.6)</b>	<b>\$2.1</b>

<sup>1</sup> *Age and service retirements*: If members retire at older ages than assumed, there is a gain. If members retire at younger ages, a loss occurs.

<sup>2</sup> *Disability retirements*: If disability claims are lower than assumed, there is a gain. If disability claims are higher than assumed, there is a loss.

<sup>3</sup> *Deaths*: If survivor claims are lower than assumed, there is a gain. If survivor claims are higher than assumed, there is a loss. If retirees die sooner than assumed, there is a gain. If retirees live longer than assumed, there is a loss.

<sup>4</sup> *Withdrawal from employment*: If more members terminate and more liabilities are released by withdrawals than assumed, there is a gain. If fewer liabilities are released, a loss occurs.

<sup>5</sup> *New members*: If the number of new members entering the plan is lower than assumed, or if they have prior service, there is a loss.

<sup>6</sup> *Pay increases*: If there are smaller salary increases than assumed, there is a gain. If greater salary increases occur than assumed, a loss results.

<sup>7</sup> *Other*: Miscellaneous gains and losses resulting from changes in actuary's valuation software, data adjustments, timing of financial transactions, etc.

<sup>8</sup> *Change in plan assumptions*: The plan assumptions were updated in 2012 as described in the Notes to the Required Supplemental Information on pages 95–98.

## Management's Discussion and Analysis (Unaudited)

### Unfunded Actuarial Accrued Liabilities

The table below identifies the components that contributed to the growth in the underfunded status of the Defined Benefit Trust Funds for the period 2008 to 2012. There are many factors that contribute to this complex issue and this table is included to provide a better understanding.

#### Defined Benefit Pension Trust Funds Changes in Unfunded Actuarial Accrued Liabilities

(Amounts in Millions of Dollars)

	2008	2009	2010 <sup>1</sup>	2011	2012	2008—2012
UAAL beginning of year	(\$13,043.6)	(\$16,813.0)	(\$16,937.6)	(\$20,108.8)	(\$23,549.6)	(\$13,043.6)
<b>Experience Gains and Losses</b>						
Age and service retirements	(47.1)	(18.7)	(4.2)	1.7	(49.0)	(117.3)
Disability retirements	29.1	31.2	9.1	9.2	9.9	88.5
Deaths	(79.1)	(91.2)	(59.7)	(33.8)	(5.2)	(269.0)
Withdrawal from employment	(113.0)	(139.7)	(16.3)	(154.1)	44.1	(379.0)
New members	(100.6)	(105.5)	(139.7)	(147.1)	(160.0)	(652.9)
Pay increases	(147.9)	407.1	727.1	901.0	385.3	2,272.6
Investment income	(2,632.8)	(2,908.6)	(2,806.5)	(3,188.9)	1,062.4	(10,474.4)
Other	(97.1)	(368.6)	230.2	18.3	(68.6)	(285.8)
Experience gain/(loss) during year	(3,188.5)	(3,194.0)	(2,060.0)	(2,593.7)	1,218.9	(9,817.3)
<b>Non-recurring Items</b>						
DPSRS UAAL transfer <sup>1</sup>	—	—	(386.8)	—	—	(386.8)
Effect of changes in plan provisions	131.4	8,873.2	—	—	—	9,004.6
Actuarial assumption changes	—	(4,827.5)	—	—	663.7	(4,163.8)
Non-recurring items	131.4	4,045.7	(386.8)	—	663.7	4,454.0
<b>30-year amortization contribution deficiency</b>	(377.1)	(313.2)	(468.6)	(125.8)	(157.3)	(1,442.0)
<b>Expected change in UAAL with 30-year amortization or less</b>	(335.2)	(663.1)	(255.8)	(721.3)	(886.9)	(2,862.3)
Total gain/(loss) for year	(3,769.4)	(124.6)	(3,171.2)	(3,440.8)	838.4	(9,667.6)
<b>UAAL end of year</b>	<b>(\$16,813.0)</b>	<b>(\$16,937.6)</b>	<b>(\$20,108.8)</b>	<b>(\$23,549.6)</b>	<b>(\$22,711.2)</b>	<b>(\$22,711.2)</b>

<sup>1</sup> The DPS Division Trust Fund was established on January 1, 2010, and received the net assets of DPSRS.

The previous schedule shows where losses and gains occurred over the five-year period compared to what was expected or assumed. These include the following significant gains and losses:

- \$10.5 billion loss due to investment income.
- \$9.0 billion gain from plan provision changes which primarily are the result of SB 10-001 (State Division: \$3.2 billion; School Division: \$5.0 billion; Local Government Division: \$631 million; and Judicial Division: \$44 million).
- \$4.8 billion loss primarily due to the investment rate of return assumption being reduced from 8.5 percent to 8.0 percent in 2009.
- \$2.9 billion loss which is the difference between last year's UAAL and the expected UAAL using the normal cost earned, less the required employer contributions all of which is adjusted for interest.
- \$2.3 billion gain due to lower pay increases.
- \$1.4 billion loss from contribution deficiencies from the required amortization period of 30 years. (The contribution deficiency is created when the actual contributions flowing into the plans are less than the annual required contribution calculated for accounting purposes.)

### Initiatives to Improve Funding

In 2003, the Board sought legislation which would stabilize the contribution rates and allow for increases or decreases in the rates when certain funding thresholds were reached. This legislation passed, but was ultimately vetoed by former Governor Owens.

In 2004, the Board again sought legislation to improve funding, revise benefits, and move the funds back toward achieving the then 40-year amortization period goal. The Board supported major legislation (SB 04-132 and SB 04-257) that would help to address PERA's funding needs in a cost-effective and equitable manner. Both pieces of legislation were enacted into law.

In 2005, SB 05-73 was enacted and provided for an employer AED contribution for PERA retirees who return to work after retirement.

In 2006, SB 06-235 was enacted and improved funding, revised benefits, made changes to Board governance, and expanded retirement plan choice to institutions of higher education.

## Management Discussion and Analysis (Unaudited)

In 2007, HB 07-1377 repealed a provision of SB 06-235 that would have expanded retirement plan choice to eligible new employees of higher educational institutions. The legislation was amended in the House to allow new employees of community colleges the ability to choose between the PERA defined benefit program and the PERA defined contribution program.

The Board has also acted to address funding concerns by raising the cost to purchase service credit effective November 1, 2003, and raising it again effective November 1, 2005, to the full actuarial cost based on the current assumed rate of return.

At the November 2008 Board meeting, the Board approved a new interest rate credit policy allowing the Board to modify the calculated member credit interest rate, reducing it up to 2 percent in whole numbers at their discretion in any future year where the year-to-date investment returns experienced by PERA are negative after three quarters. The interest rate was then set to 3 percent in 2009, a decrease from the rate of 5 percent set in 2008. This rate has been maintained at 3 percent for 2010 through 2012. This rate is used in calculating interest on refunds and in determining the money purchase formula benefit in the Division Trust Funds. For more information on benefit provisions, refer to Note 1 of the Financial Statements on pages 58–66.

The combination of the dramatic losses due to the financial markets along with the cumulative effect of the recent contribution shortfalls and the benefit enhancements in the 1990's brought into question the long-term sustainability of the Division Trust Funds. At the end of 2008, the Board began studying revisions to the funds' plans to analyze changes, which could lead the funds back on a path to long-term sustainability. After completing their analysis, the Board put together a recommendation to the General Assembly that ultimately led to the creation of SB 10-001. The changes are substantive and affect employers, active and inactive members, and retirees. The entire bill can be found online at <http://www.leg.state.co.us>.

### **GASB Pension Project—Implementation of GASB Statement Nos. 67 and 68**

In June 2012, GASB issued Statement No. 67, *Financial Reporting for Pension Plans—an amendment of GASB Statement No. 25.* Statement No. 67 establishes new standards for financial reporting and note disclosure by defined benefit pension plans administered through qualified trusts, and note disclosure requirements for defined contribution pension plans administered through qualified trusts. Statement No. 67 will be effective for periods beginning after June 30, 2013, and PERA has chosen not to early adopt Statement No. 67. One of the major changes in the new standard is the rate used to discount projected benefit payments. The new standard states the long-term expected rate of return on the investments of the pension plan should be applied only to available pension plan assets that are expected to be invested using a strategy to achieve that return. If there comes a point in the projections when plan net position and contributions related to active and inactive employees is no longer projected to be greater than or equal to projected benefit payments related to those employees and administrative expenses, then from that point forward the pension plan will be required to discount the projected benefit payments using a municipal borrowing rate—a tax-exempt, high-quality 20-year general obligation bond index rate. PERA has not yet determined the impact of this standard on its financial statements and disclosures.

Also in June 2012, GASB issued Statement No. 68, *Accounting and Financial Reporting for Pensions—an amendment of GASB Statement No. 27.* Statement No. 68 establishes new standards for accounting for pensions by employers whose employees are provided with pensions through pension plans administered through trusts, or equivalent arrangements, that meet the characteristics defined in the statements and addresses accounting and financial reporting issues of certain nonemployer entities that contribute to such plans. Statement No. 68 will be effective for periods beginning after June 30, 2014, and PERA has chosen not to early adopt Statement No. 68. PERA has not yet determined the impact of this standard on its financial statements and disclosures.

## Management Discussion and Analysis (Unaudited)

(In Thousands of Dollars)

## DEFINED CONTRIBUTION PENSION PLAN TRUST FUNDS

## Financial Reporting Highlights

*Net Position*

The net position for the Voluntary Investment Program, the Defined Contribution Retirement Plan, and the Deferred Compensation Retirement Plan administered by PERA increased \$294,551 for the year ended December 31, 2012.

## Net Position

	2012 CHANGE IN NET POSITION	2012 ENDING NET POSITION
Voluntary Investment Program	\$214,328	\$2,105,675
Defined Contribution Retirement Plan	19,670	83,267
Deferred Compensation Plan	60,553	544,518
<b>Total</b>	<b>\$294,551</b>	<b>\$2,733,460</b>

The increase in net position for the three defined contribution plans was primarily due to positive investment returns arising from the global stock markets.

## Change in Net Position

	(C) CONTRIBUTIONS AND OTHER ADDITIONS	+ (C) PLAN TRANSFERS	+ (I) INVESTMENT GAIN/(LOSS)	– (B) – (E) BENEFITS, EXPENSES, AND OTHER DEDUCTIONS	= NET CHANGE CHANGE IN NET ASSETS
Voluntary Investment Program	\$124,785	\$—	\$236,775	\$147,232	\$214,328
Defined Contribution Retirement Plan	16,363	—	9,046	5,739	19,670
Deferred Compensation Plan	40,219	—	49,344	29,010	60,553
<b>2012 change in net position</b>	<b>\$181,367</b>	<b>\$—</b>	<b>\$295,165</b>	<b>\$181,981</b>	<b>\$294,551</b>
<b>2011 change in net position</b>	<b>\$193,333</b>	<b>\$4</b>	<b>\$3,453</b>	<b>\$172,471</b>	<b>\$24,319</b>
<b>2010 change in net position</b>	<b>\$198,689</b>	<b>\$35</b>	<b>\$242,251</b>	<b>\$132,073</b>	<b>\$308,902</b>
<b>2009 change in net position</b>	<b>\$177,954</b>	<b>\$373,236</b>	<b>\$336,532</b>	<b>\$90,837</b>	<b>\$796,885</b>
<b>2008 change in net position</b>	<b>\$169,788</b>	<b>\$—</b>	<b>(\$501,703)</b>	<b>\$92,759</b>	<b>(\$424,674)</b>
<b>2008–2012 change in net position</b>	<b>\$921,131</b>	<b>\$373,275</b>	<b>\$375,698</b>	<b>\$670,121</b>	<b>\$999,983</b>

## Investment Highlights

*Voluntary Investment Program, the Defined Contribution Retirement Plan, and the Deferred Compensation Retirement Plan Investment Options*

On October 1, 2011, the three plans revised all investment options available to participants. The current investment funds for the three plans are the PERAdvantage Capital Preservation Fund, PERAdvantage Fixed Income Fund, PERAdvantage Real Return Fund, PERAdvantage U.S. Large Cap Stock Fund, PERAdvantage International Stock Fund, PERAdvantage U.S. Small and Mid Cap Stock Fund, PERAdvantage Socially Responsible Investment (SRI) Fund, PERAdvantage Income Fund, PERAdvantage 2015 Fund, PERAdvantage 2020 Fund, PERAdvantage 2025 Fund, PERAdvantage 2030 Fund, PERAdvantage 2035 Fund, PERAdvantage 2040 Fund, PERAdvantage 2045 Fund, PERAdvantage 2050 Fund, PERAdvantage 2055 Fund, and TD Ameritrade Self-Directed Brokerage Account. Each PERAdvantage option is made up of one or more underlying portfolios. In addition, on October 1, 2011, recordkeeping for all participant transactions was consolidated and is administered by ING. There were no changes to the investment options in 2012.

*Cash and Short-Term Investments*

Cash and short-term investments increased from \$53,461 in 2011 to \$67,244 in 2012. The growth was primarily due to an increased allocation to cash and short-term investments within the investment funds as of year-end. Investment settlements and other liabilities decreased from \$17,811 in 2011 to \$5,301 in 2012 primarily due to a large decrease in the pending investment purchases.

*Other Changes*

Other additions decreased from \$4,322 in 2011 to \$2,431 in 2012, primarily due to reduced revenue sharing income from investment funds. With the change in investment structure in the fourth quarter of 2011, revenue-sharing was reduced as the plans took advantage of lower cost institutional and internally managed investment funds.

Administrative fees decreased from \$5,833 in 2011 to \$4,780 in 2012, primarily through a reduction in recordkeeping costs.

Other deductions increased from \$219 in 2011 to \$534 in 2012, due to the addition of ING fees for managed accounts and increased self-directed brokerage maintenance expenses.

## Management's Discussion and Analysis (Unaudited)

(In Thousands of Dollars)

### COMPARATIVE FINANCIAL STATEMENTS

#### Defined Benefit Pension Trust Funds

The five defined benefit funds provide retirement, survivor, and disability benefits to the employees of affiliated State, School, Local Government, Judicial, and Denver Public Schools employers. Benefits are funded by member and employer contributions and by earnings on investments.

#### Defined Benefit Pension Trust Funds Net Position

ASSETS	DECEMBER 31, 2012	DECEMBER 31, 2011	% CHANGE
Cash and short-term investments	\$933,429	\$853,768	9.3%
Securities lending collateral	1,422,131	1,410,853	0.8%
Receivables	215,654	219,286	(1.7%)
Investments, at fair value	38,876,642	36,272,218	7.2%
Capital assets, net of accumulated depreciation	19,521	20,901	(6.6%)
<b>Total assets</b>	<b>41,467,377</b>	<b>38,777,026</b>	<b>6.9%</b>
<b>LIABILITIES</b>			
Investment settlements and other liabilities	162,421	140,061	16.0%
Security lending obligations	1,425,822	1,414,951	0.8%
<b>Total liabilities</b>	<b>1,588,243</b>	<b>1,555,012</b>	<b>2.1%</b>
<b>Net position</b>	<b>\$39,879,134</b>	<b>\$37,222,014</b>	<b>7.1%</b>

#### Defined Benefit Pension Trust Funds Changes in Net Position

ADDITIONS	FOR THE YEAR ENDED DECEMBER 31, 2012	FOR THE YEAR ENDED DECEMBER 31, 2011	% CHANGE
Employer contributions	\$1,015,397	\$935,253	8.6%
Member contributions	640,560	676,768	(5.4%)
Purchased service	49,795	31,441	58.4%
Investment income	4,696,842	715,030	556.9%
Other	5,761	1,036	456.1%
<b>Total additions</b>	<b>6,408,355</b>	<b>2,359,528</b>	<b>171.6%</b>
<b>DEDUCTIONS</b>			
Benefit payments	3,506,858	3,323,426	5.5%
Refunds	195,742	176,244	11.1%
Disability insurance premiums	4,749	5,010	(5.2%)
Administrative expenses	28,669	29,139	(1.6%)
Other	15,217	9,396	62.0%
<b>Total deductions</b>	<b>3,751,235</b>	<b>3,543,215</b>	<b>5.9%</b>
<b>Change in net position</b>	<b>2,657,120</b>	<b>(1,183,687)</b>	<b>(324.5%)</b>
<b>Net position</b>			
Beginning of year	37,222,014	38,405,701	(3.1%)
End of year	\$39,879,134	\$37,222,014	7.1%



## Management's Discussion and Analysis (Unaudited)

(In Thousands of Dollars)

### Other Postemployment Benefit Funds

The HCTF and the DPS HCTF provide a health care premium subsidy to participating PERA benefit recipients and their eligible beneficiaries who choose to enroll in the Program. They are funded by amounts contributed by employers during an employee's working life based on a percentage of pay and by earnings on investments.

#### Other Postemployment Benefit Funds Net Position

ASSETS	DECEMBER 31, 2012	DECEMBER 31, 2011	% CHANGE
Cash and short-term investments	\$7,948	\$7,433	6.9%
Securities lending collateral	12,110	12,284	(1.4%)
Receivables	8,412	8,300	1.3%
Investments, at fair value	331,042	315,801	4.8%
<b>Total assets</b>	<b>359,512</b>	<b>343,818</b>	<b>4.6%</b>
<b>LIABILITIES</b>			
Investment settlements and other liabilities	40,790	35,338	15.4%
Securities lending obligations	12,142	12,319	(1.4%)
<b>Total liabilities</b>	<b>52,932</b>	<b>47,657</b>	<b>11.1%</b>
<b>Net position</b>	<b>\$306,580</b>	<b>\$296,161</b>	<b>3.5%</b>

#### Other Postemployment Benefit Funds Changes in Net Position

ADDITIONS	FOR THE YEAR ENDED DECEMBER 31, 2012	FOR THE YEAR ENDED DECEMBER 31, 2011	% CHANGE
Employer contributions	\$77,796	\$78,478	(0.9%)
Retiree health care premium payments	111,399	113,218	(1.6%)
Federal health care subsidies	14,686	14,650	0.2%
Investment income	38,510	5,577	590.5%
Other	11,884	10,948	8.5%
<b>Total additions</b>	<b>254,275</b>	<b>222,871</b>	<b>14.1%</b>
<b>DEDUCTIONS</b>			
Benefit payments	229,795	214,189	7.3%
Administrative expenses	14,061	12,982	8.3%
<b>Total deductions</b>	<b>243,856</b>	<b>227,171</b>	<b>7.3%</b>
<b>Change in net position</b>	<b>10,419</b>	<b>(4,300)</b>	<b>(342.3%)</b>
<b>Net position</b>			
<b>Beginning of year</b>	<b>296,161</b>	<b>300,461</b>	<b>(1.4%)</b>
<b>End of year</b>	<b>\$306,580</b>	<b>\$296,161</b>	<b>3.5%</b>

## Management's Discussion and Analysis (Unaudited)

(In Thousands of Dollars)

### Private Purpose Trust Fund

The Life Insurance Reserve (LIR) is an accumulation of dividends received from an insurance company as a return on the premiums paid by those members who have voluntarily enrolled in life insurance programs, adjusted for actual historical experience. The administrative costs of the plan are paid using proceeds from dividends and investment income.

#### Life Insurance Reserve Net Position

ASSETS	DECEMBER 31, 2012	DECEMBER 31, 2011	% CHANGE
Cash and short-term investments	\$408	\$366	11.5%
Securities lending collateral	621	605	2.6%
Receivables	52	53	(1.9%)
Investments, at fair value	16,971	15,563	9.0%
<b>Total assets</b>	<b>18,052</b>	<b>16,587</b>	<b>8.8%</b>
<b>LIABILITIES</b>			
Investment settlements and other liabilities	1,566	1,564	0.1%
Securities lending obligations	622	607	2.5%
<b>Total liabilities</b>	<b>2,188</b>	<b>2,171</b>	<b>0.8%</b>
<b>Net position</b>	<b>\$15,864</b>	<b>\$14,416</b>	<b>10.0%</b>

#### Life Insurance Reserve Changes in Net Position

ADDITIONS	FOR THE YEAR ENDED DECEMBER 31, 2012	FOR THE YEAR ENDED DECEMBER 31, 2011	% CHANGE
Investment income	\$2,020	\$503	301.6%
<b>Total additions</b>	<b>2,020</b>	<b>503</b>	<b>301.6%</b>
<b>DEDUCTIONS</b>			
Life insurance claims	62	547	(88.7%)
Administrative expenses	510	573	(11.0%)
<b>Total deductions</b>	<b>572</b>	<b>1,120</b>	<b>(48.9%)</b>
<b>Change in net position</b>	<b>1,448</b>	<b>(617)</b>	<b>(334.7%)</b>
<b>Net position</b>			
<b>Beginning of year</b>	<b>14,416</b>	<b>15,033</b>	<b>(4.1%)</b>
<b>End of year</b>	<b>\$15,864</b>	<b>\$14,416</b>	<b>10.0%</b>

**Management's Discussion and Analysis (Unaudited)***(In Thousands of Dollars)***Defined Contribution Pension Trust Funds**

PERA administers three defined contribution pension trust funds. The Voluntary Investment Program and the Deferred Compensation Plan provide retirement benefits to members of the Defined Benefit Pension Trust Funds who have voluntarily made contributions during their employment. The Defined Contribution Retirement Plan provides retirement benefits to eligible State of Colorado employees hired on or after January 1, 2006, and eligible community college employees hired on or after January 1, 2008, who selected the PERA DC plan as their retirement plan.

**Defined Contribution Pension Trust Funds Net Position**

<b>ASSETS</b>	<b>DECEMBER 31, 2012</b>	<b>DECEMBER 31, 2011</b>	<b>% CHANGE</b>
Cash and short-term investments	\$67,244	\$53,461	25.8%
Receivables	77,254	83,016	(6.9%)
Investments, at fair value	2,596,416	2,323,316	11.8%
<b>Total assets</b>	<b>2,740,914</b>	<b>2,459,793</b>	<b>11.4%</b>
<b>LIABILITIES</b>			
Investment settlements and other liabilities	7,454	20,884	(64.3%)
<b>Total liabilities</b>	<b>7,454</b>	<b>20,884</b>	<b>(64.3%)</b>
<b>Net position</b>	<b>\$2,733,460</b>	<b>\$2,438,909</b>	<b>12.1%</b>

**Defined Contribution Pension Trust Funds Changes in Net Position**

<b>ADDITIONS</b>	<b>FOR THE YEAR ENDED DECEMBER 31, 2012</b>	<b>FOR THE YEAR ENDED DECEMBER 31, 2011</b>	<b>% CHANGE</b>
Employer contributions	\$11,708	\$10,695	9.5%
Member contributions	167,228	178,316	(6.2%)
Plan transfer	—	4	(100.0%)
Investment income	295,165	3,453	8,448.1%
Other	2,431	4,322	(43.8%)
<b>Total additions</b>	<b>476,532</b>	<b>196,790</b>	<b>142.2%</b>
<b>DEDUCTIONS</b>			
Refunds	176,667	166,419	6.2%
Administrative expenses	4,780	5,833	(18.1%)
Other	534	219	143.8%
<b>Total deductions</b>	<b>181,981</b>	<b>172,471</b>	<b>5.5%</b>
<b>Change in net position</b>	<b>294,551</b>	<b>24,319</b>	<b>1,111.2%</b>
<b>Net position</b>			
<b>Beginning of year</b>	<b>2,438,909</b>	<b>2,414,590</b>	<b>1.0%</b>
<b>End of year</b>	<b>\$2,733,460</b>	<b>\$2,438,909</b>	<b>12.1%</b>

## Statement of Net Position

As of December 31, 2012, with Comparative Combined Total for 2011  
(In Thousands of Dollars)

ASSETS	STATE DIVISION TRUST FUND	SCHOOL DIVISION TRUST FUND	LOCAL GOVERNMENT DIVISION TRUST FUND	JUDICIAL DIVISION TRUST FUND	DENVER PUBLIC SCHOOLS DIVISION TRUST FUND	TOTAL DEFINED BENEFIT PENSION PLANS
<b>Cash and short-term investments</b>						
Cash and short-term investments	\$299,242	\$484,102	\$74,248	\$5,674	\$70,163	\$933,429
Securities lending collateral	455,912	737,556	113,121	8,645	106,897	1,422,131
<b>Total cash and short-term investments</b>	<b>755,154</b>	<b>1,221,658</b>	<b>187,369</b>	<b>14,319</b>	<b>177,060</b>	<b>2,355,560</b>
<b>Receivables</b>						
Benefit	43,858	41,393	6,016	1,339	4,939	97,545
Interfund	684	1,107	170	13	160	2,134
Investment settlements and income	37,180	60,148	9,225	705	8,717	115,975
<b>Total receivables</b>	<b>81,722</b>	<b>102,648</b>	<b>15,411</b>	<b>2,057</b>	<b>13,816</b>	<b>215,654</b>
<b>Investments, at fair value:</b>						
Fixed income	2,917,074	4,719,124	723,783	55,311	683,963	9,099,255
Global stocks	7,162,034	11,586,447	1,777,041	135,798	1,679,272	22,340,592
Alternative investments	1,100,380	1,780,149	273,026	20,864	258,004	3,432,423
Real estate investments	1,043,549	1,688,210	258,925	19,787	244,679	3,255,150
Opportunity fund	240,189	388,567	59,595	4,554	56,317	749,222
Self-directed brokerage	—	—	—	—	—	—
<b>Total investments, at fair value</b>	<b>12,463,226</b>	<b>20,162,497</b>	<b>3,092,370</b>	<b>236,314</b>	<b>2,922,235</b>	<b>38,876,642</b>
<b>Capital assets, at cost, net of accumulated depreciation of \$21,897 and \$21,037 at December 31, 2012, and 2011, respectively</b>	<b>5,870</b>	<b>11,065</b>	<b>1,214</b>	<b>41</b>	<b>1,331</b>	<b>19,521</b>
<b>Total assets</b>	<b>13,305,972</b>	<b>21,497,868</b>	<b>3,296,364</b>	<b>252,731</b>	<b>3,114,442</b>	<b>41,467,377</b>
<b>LIABILITIES</b>						
Investment settlements and other liabilities	51,525	82,042	16,818	847	11,189	162,421
Securities lending obligations	457,095	739,471	113,414	8,667	107,175	1,425,822
Interfund	—	—	—	—	—	—
<b>Total liabilities</b>	<b>508,620</b>	<b>821,513</b>	<b>130,232</b>	<b>9,514</b>	<b>118,364</b>	<b>1,588,243</b>
<b>Commitments and contingencies (Note 7)</b>						
<b>Net position restricted for pension plan benefits, other postemployment benefits, and private purpose trust fund participants</b>	<b>\$12,797,352</b>	<b>\$20,676,355</b>	<b>\$3,166,132</b>	<b>\$243,217</b>	<b>\$2,996,078</b>	<b>\$39,879,134</b>
<b>NET POSITION RESTRICTED FOR:</b>						
Defined benefit pension plan benefits	\$12,797,352	\$20,676,355	\$3,166,132	\$243,217	\$2,996,078	\$39,879,134
Defined contribution pension plan benefits	—	—	—	—	—	—
Other postemployment benefits	—	—	—	—	—	—
Private purpose trust fund participants	—	—	—	—	—	—
<b>Net position restricted for pension plan benefits, other postemployment benefits, and private purpose trust fund participants</b>	<b>\$12,797,352</b>	<b>\$20,676,355</b>	<b>\$3,166,132</b>	<b>\$243,217</b>	<b>\$2,996,078</b>	<b>\$39,879,134</b>

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

## Statement of Net Position

As of December 31, 2012, with Comparative Combined Total for 2011  
(In Thousands of Dollars)

VOLUNTARY INVESTMENT PROGRAM	DEFINED CONTRIBUTION RETIREMENT PLAN	DEFERRED COMPENSATION PLAN	TOTAL PENSION TRUST FUNDS	HEALTH CARE TRUST FUND	DENVER PUBLIC SCHOOLS HEALTH CARE TRUST FUND	LIFE INSURANCE RESERVE	COMBINED TOTAL	
							2012	2011
\$49,979	\$4,518	\$12,747	\$1,000,673	\$7,569	\$379	\$408	\$1,009,029	\$915,028
—	—	—	1,422,131	11,532	578	621	1,434,862	1,423,742
49,979	4,518	12,747	2,422,804	19,101	957	1,029	2,443,891	2,338,770
64,407	64	11,024	173,040	6,869	538	—	180,447	184,034
—	—	—	2,134	17	1	1	2,153	3,073
1,478	38	243	117,734	940	47	51	118,772	123,548
65,885	102	11,267	292,908	7,826	586	52	301,372	310,655
639,986	22,755	255,808	10,017,804	73,783	3,698	3,973	10,099,258	9,519,729
1,349,748	56,239	258,641	24,005,220	181,154	9,080	9,753	24,205,207	22,158,861
—	—	—	3,432,423	27,833	1,395	1,498	3,463,149	3,460,708
—	—	—	3,255,150	26,395	1,324	1,420	3,284,289	3,267,644
—	—	—	749,222	6,075	305	327	755,929	512,185
5,417	355	7,467	13,239	—	—	—	13,239	7,771
1,995,151	79,349	521,916	41,473,058	315,240	15,802	16,971	41,821,071	38,926,898
—	—	—	19,521	—	—	—	19,521	20,901
2,111,015	83,969	545,930	44,208,291	342,167	17,345	18,052	44,585,855	41,597,224
3,982	295	1,024	167,722	38,868	1,922	1,566	210,078	194,774
—	—	—	1,425,822	11,562	580	622	1,438,586	1,427,877
1,358	407	388	2,153	—	—	—	2,153	3,073
5,340	702	1,412	1,595,697	50,430	2,502	2,188	1,650,817	1,625,724
<b>\$2,105,675</b>	<b>\$83,267</b>	<b>\$544,518</b>	<b>\$42,612,594</b>	<b>\$291,737</b>	<b>\$14,843</b>	<b>\$15,864</b>	<b>\$42,935,038</b>	<b>\$39,971,500</b>
\$—	\$—	\$—	\$39,879,134	\$—	\$—	\$—	\$39,879,134	\$37,222,014
2,105,675	83,267	544,518	2,733,460	—	—	—	2,733,460	2,438,909
—	—	—	—	291,737	14,843	—	306,580	296,161
—	—	—	—	—	—	15,864	15,864	14,416
<b>\$2,105,675</b>	<b>\$83,267</b>	<b>\$544,518</b>	<b>\$42,612,594</b>	<b>\$291,737</b>	<b>\$14,843</b>	<b>\$15,864</b>	<b>\$42,935,038</b>	<b>\$39,971,500</b>

## Statement of Changes in Net Position

For the Year Ended December 31, 2012, with Comparative Combined Total for 2011  
(In Thousands of Dollars)

	STATE DIVISION TRUST FUND	SCHOOL DIVISION TRUST FUND	LOCAL GOVERNMENT DIVISION TRUST FUND	JUDICIAL DIVISION TRUST FUND	DENVER PUBLIC SCHOOLS DIVISION TRUST FUND	TOTAL DEFINED BENEFIT PENSION PLANS
<b>ADDITIONS</b>						
<b>Contributions</b>						
Employers	\$335,073	\$573,586	\$86,113	\$5,922	\$14,703	\$1,015,397
Members	227,058	313,923	54,827	3,628	41,124	640,560
Plan transfer	—	—	—	—	—	—
Purchased service	16,358	17,406	13,927	180	1,924	49,795
Retiree health care and life premiums	—	—	—	—	—	—
Federal health care subsidies	—	—	—	—	—	—
<b>Total contributions</b>	<b>578,489</b>	<b>904,915</b>	<b>154,867</b>	<b>9,730</b>	<b>57,751</b>	<b>1,705,752</b>
<b>Investment income</b>						
Net appreciation (depreciation) in fair value of investments	1,229,820	1,980,707	299,618	22,823	288,803	3,821,771
Interest	97,147	156,536	23,775	1,808	22,805	302,071
Dividends	155,223	250,116	37,989	2,890	36,438	482,656
Real estate, alternative investment, and opportunity fund net operating income	72,050	116,099	17,633	1,341	16,914	224,037
Less investment expense	(47,064)	(75,836)	(11,518)	(876)	(11,048)	(146,342)
<b>Net income from investing activities</b>	<b>1,507,176</b>	<b>2,427,622</b>	<b>367,497</b>	<b>27,986</b>	<b>353,912</b>	<b>4,684,193</b>
Securities lending income	2,054	3,309	502	39	482	6,386
Less securities lending borrower rebates	2,418	3,896	592	45	568	7,519
Less securities lending agent fees	(404)	(651)	(99)	(7)	(95)	(1,256)
<b>Net income from securities lending</b>	<b>4,068</b>	<b>6,554</b>	<b>995</b>	<b>77</b>	<b>955</b>	<b>12,649</b>
<b>Net investment income</b>	<b>1,511,244</b>	<b>2,434,176</b>	<b>368,492</b>	<b>28,063</b>	<b>354,867</b>	<b>4,696,842</b>
<b>Other additions</b>	<b>150</b>	<b>246</b>	<b>2,663</b>	<b>2,556</b>	<b>146</b>	<b>5,761</b>
<b>Total additions</b>	<b>2,089,883</b>	<b>3,339,337</b>	<b>526,022</b>	<b>40,349</b>	<b>412,764</b>	<b>6,408,355</b>
<b>DEDUCTIONS</b>						
<b>Benefits</b>						
Benefits paid to retirees/cobeneficiaries	1,218,744	1,819,419	193,941	17,230	227,176	3,476,510
Benefits paid to survivors	13,178	13,224	2,004	376	1,566	30,348
Benefits paid to health care participants	—	—	—	—	—	—
<b>Total benefits</b>	<b>1,231,922</b>	<b>1,832,643</b>	<b>195,945</b>	<b>17,606</b>	<b>228,742</b>	<b>3,506,858</b>
Refunds of contribution accounts, including match and interest	69,221	77,154	42,941	605	5,821	195,742
Disability premiums and life insurance claims	1,570	2,522	410	27	220	4,749
Administrative expenses	8,568	16,086	2,035	61	1,919	28,669
Other deductions	3,911	9,157	2,072	22	55	15,217
<b>Total deductions</b>	<b>1,315,192</b>	<b>1,937,562</b>	<b>243,403</b>	<b>18,321</b>	<b>236,757</b>	<b>3,751,235</b>
<b>Net increase (decrease) in assets available</b>	<b>774,691</b>	<b>1,401,775</b>	<b>282,619</b>	<b>22,028</b>	<b>176,007</b>	<b>2,657,120</b>
<b>Net position restricted for pension plan benefits, other postemployment benefits, and private purpose trust fund participants</b>						
<b>Beginning of year</b>	<b>12,022,661</b>	<b>19,274,580</b>	<b>2,883,513</b>	<b>221,189</b>	<b>2,820,071</b>	<b>37,222,014</b>
<b>End of year</b>	<b>\$12,797,352</b>	<b>\$20,676,355</b>	<b>\$3,166,132</b>	<b>\$243,217</b>	<b>\$2,996,078</b>	<b>\$39,879,134</b>

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

## Statement of Changes in Net Position

For the Year Ended December 31, 2012, with Comparative Combined Total for 2011  
(In Thousands of Dollars)

VOLUNTARY INVESTMENT PROGRAM	DEFINED CONTRIBUTION RETIREMENT PLAN	DEFERRED COMPENSATION PLAN	TOTAL PENSION TRUST FUNDS	HEALTH CARE TRUST FUND	DENVER PUBLIC SCHOOLS HEALTH CARE TRUST FUND	LIFE INSURANCE RESERVE	COMBINED TOTAL	
							2012	2011
\$3,697	\$7,997	\$14	\$1,027,105	\$72,553	\$5,243	\$—	\$1,104,901	\$1,024,426
119,013	8,364	39,851	807,788	—	—	—	807,788	855,084
—	—	—	—	—	—	—	—	4
—	—	—	49,795	—	—	—	49,795	31,441
—	—	—	—	107,104	4,295	—	111,399	113,218
—	—	—	—	14,198	488	—	14,686	14,650
122,710	16,361	39,865	1,884,688	193,855	10,026	—	2,088,569	2,038,823
204,759	8,343	41,301	4,076,174	29,889	1,466	1,644	4,109,173	(139,608)
4,376	173	3,684	310,304	2,355	115	130	312,904	363,717
30,042	627	4,908	518,233	3,763	184	207	522,387	401,637
—	—	—	224,037	1,747	86	97	225,967	227,310
(2,402)	(97)	(549)	(149,390)	(1,141)	(56)	(63)	(150,650)	(143,028)
236,775	9,046	49,344	4,979,358	36,613	1,795	2,015	5,019,781	710,028
—	—	—	6,386	50	2	3	6,441	10,807
—	—	—	7,519	57	3	3	7,582	5,176
—	—	—	(1,256)	(10)	—	(1)	(1,267)	(1,448)
—	—	—	12,649	97	5	5	12,756	14,535
236,775	9,046	49,344	4,992,007	36,710	1,800	2,020	5,032,537	724,563
2,075	2	354	8,192	11,668	216	—	20,076	16,306
361,560	25,409	89,563	6,884,887	242,233	12,042	2,020	7,141,182	2,779,692
—	—	—	3,476,510	—	—	—	3,476,510	3,293,120
—	—	—	30,348	—	—	—	30,348	30,306
—	—	—	—	218,768	11,027	—	229,795	214,189
—	—	—	3,506,858	218,768	11,027	—	3,736,653	3,537,615
144,171	4,869	27,627	372,409	—	—	—	372,409	342,663
—	—	—	4,749	—	—	62	4,811	5,557
2,827	848	1,105	33,449	13,514	547	510	48,020	48,527
234	22	278	15,751	—	—	—	15,751	9,615
147,232	5,739	29,010	3,933,216	232,282	11,574	572	4,177,644	3,943,977
214,328	19,670	60,553	2,951,671	9,951	468	1,448	2,963,538	(1,164,285)
1,891,347	63,597	483,965	39,660,923	281,786	14,375	14,416	39,971,500	41,135,785
\$2,105,675	\$83,267	\$544,518	\$42,612,594	\$291,737	\$14,843	\$15,864	\$42,935,038	\$39,971,500

## Notes to the Financial Statements

(In Thousands of Dollars)

### Note 1—Plan Description

#### Organization

Colorado PERA was established in 1931. The statute relating to PERA is Title 24, Article 51 of the Colorado Revised Statutes (C.R.S.). PERA administers cost-sharing multiple-employer defined benefit plans for the State Division Trust Fund, School Division Trust Fund, Local Government Division Trust Fund, Judicial Division Trust Fund, and Denver Public Schools Division Trust Fund (Division Trust Funds). Additionally, PERA administers cost-sharing multiple-employer defined benefit other postemployment benefit plans for the Health Care Trust Fund (HCTF) and the Denver Public Schools Health Care Trust Fund (DPS HCTF), collectively Health Care Trust Funds (see Note 9), a private purpose trust fund (Life Insurance Reserve), and three multiple-employer defined contribution plans (Voluntary Investment Program, Defined Contribution Retirement Plan, and the Deferred Compensation Plan; see Note 8). Prior to 2009, the Defined Contribution Retirement Plan was a component plan of the Voluntary Investment Program. Senate Bill (SB) 09-66, established a separate trust fund for the Defined Contribution Retirement Plan and it is now shown as a separate fiduciary fund. Additionally, as a result of SB 09-66, PERA became the administrator of the Deferred Compensation Plan on July 1, 2009, and received a plan transfer from the State of Colorado 457 Plan. SB 09-282 required the merger of the Denver Public Schools Retirement System (DPSRS) into PERA on January 1, 2010, and established the separate Denver Public Schools (DPS) Division Trust Fund and DPS HCTF.

Responsibility for the organization and administration of the Division Trust Funds, Health Care Trust Funds, Voluntary Investment Program, Defined Contribution Retirement Plan, the Deferred Compensation Plan, and Life Insurance Reserve rests with the PERA Board of Trustees (Board). The State Division Trust Fund was established in 1931, the School and Local Government Division Trust Funds in 1944, the Judicial Division Trust Fund in 1949, and the DPS Division Trust Fund in 2010. The State and School Division Trust Funds were combined in 1997 and separated in 2006.

Listed below is the number of active affiliated employers for the five Division Trust Funds. The School and DPS Divisions employer counts include charter schools operating within the respective public school districts and under the Colorado Charter School Institute.

DIVISION	AS OF DECEMBER 31, 2012
State	70
School	281
Local Government	143
Judicial	6
Denver Public Schools	29
<b>Total employers</b>	<b>529</b>

#### Membership—Division Trust Funds—Defined Benefit Pension Plans

Benefit recipients and members of PERA consisted of the following as of December 31, 2012, with comparative combined totals for 2011:

	STATE DIVISION	SCHOOL DIVISION	LOCAL GOVERNMENT DIVISION	JUDICIAL DIVISION	DENVER PUBLIC SCHOOLS DIVISION	2012	2011
Retirees and beneficiaries	34,125	53,952	5,901	321	6,415	100,714	97,053
Terminated employees entitled to benefits but not yet receiving benefits	5,029	11,942	3,075	7	645	20,698	18,003
Inactive members	61,293	93,097	20,104	5	4,414	178,913	168,670
Active members							
Vested general employees	31,512	67,597	6,495	266	5,228	111,098	110,626
Vested State Troopers	630	—	—	—	—	630	615
Non-vested general employees	22,481	47,697	5,602	63	8,683	84,526	88,304
Non-vested State Troopers	181	—	—	—	—	181	196
Total actives	54,804	115,294	12,097	329	13,911	196,435	199,741
<b>Total</b>	<b>155,251</b>	<b>274,285</b>	<b>41,177</b>	<b>662</b>	<b>25,385</b>	<b>496,760</b>	<b>483,467</b>

#### Membership—Voluntary Investment Program and Defined Contribution Retirement Plan

See Note 8.

#### Membership—Deferred Compensation Plan

See Note 8.

#### Membership—Health Care Trust Funds

See Note 9.



## Notes to the Financial Statements

(In Thousands of Dollars)

### **Benefit Provisions—Division Trust Funds**

Plan benefits are specified in Title 24, Article 51 of the C.R.S. and applicable provisions of the federal Internal Revenue Code. Colorado State law provisions may be amended from time to time by the Colorado General Assembly.

#### **Plan Eligibility**

All employees of PERA employers who work in a position eligible for PERA membership must be covered by PERA, except for employees who are hired into a position that makes them eligible for a choice between enrolling in the PERA Defined Benefit (DB) Plan or the PERA Defined Contribution Plan (PERAChoice).

PERAChoice eligibility applies to certain new employees of State Agencies and Departments and Community Colleges. If an eligible employee does not make a choice of which plan he or she would like to participate in within 60 days of the starting date of employment, the employee is automatically enrolled in the PERA DB Plan. During years two through five of participation in their plan of choice, employees may make a one-time irrevocable election to switch their original election. After the fifth year of participation in their plan of choice, this option to switch plan participation no longer exists.

Some positions of PERA-affiliated employers are not eligible for PERA membership and may be covered by another separate retirement program.

#### **Benefit Provisions**

The Division Trust Funds have various benefit provisions depending upon the member's date of hire or upon the member's date of retirement. The differences in plan benefit provisions are noted below. On January 1, 2010, DPSRS merged with PERA. On that date all liabilities and assets of DPSRS were transferred to and became liabilities and assets of the DPS Division of PERA. The benefit provisions of DPSRS were incorporated into PERA as the DPS benefit structure. The benefit provisions of existing members of PERA on the merger date and all new hires post-merger date are identified as the PERA benefit structure.

#### **Member Accounts**

Members contribute 8 percent of their PERA-includable salary to their member accounts; State Troopers and Colorado Bureau of Investigation agents contribute 10 percent.

State law authorizes the Board to determine annually the interest to be credited to member accounts, but in no event may the Board specify a rate that exceeds 5 percent. Effective January 1, 2009, the rate was set at 3 percent and has been reconfirmed each November since adoption.

SB 10-146 was signed by former Governor Ritter on March 31, 2010. This bill was proposed by the Governor and recommended by the Joint Budget Committee to reduce the State's expenditures. SB 11-076 was signed by Governor Hickenlooper on May 23, 2011. This bill was proposed by the Joint Budget Committee to reduce the State's expenditures.

These two legislative bills temporarily increased the State and Judicial Divisions' member contribution rates by 2.50 percent of salary, and correspondingly decreased the State and Judicial Divisions' employer contribution rates, effective July 1, 2010, through June 30, 2012. On July 1, 2012, the State and Judicial Divisions' member contribution rates returned to their previous statutory rates.

#### **Service Credit**

Members earn service credit for each month of work performed as an employee for a PERA-affiliated employer for which salary is earned for such services.

A full month of service credit is earned for each month of work where the salary earned by the employee is equal to or greater than 80 multiplied by the federal minimum hourly wage in effect for that month. Earned salary which is less than this amount results in a partial month of service credit.

Eligible members may purchase additional service credit based upon (1) other employment that is not covered by PERA or another retirement program or (2) the service credit forfeited as the result of a withdrawn PERA member account. Such service credit purchases are subject to limits in State and federal law. The amounts used to purchase service credit are credited to the member's account and may include tax-paid funds and eligible rollovers of tax-deferred funds. Such amounts are eligible for interest accrual, but no match if the account is refunded in a lump-sum distribution.

#### **Refund or Distribution Provisions**

Upon termination of employment with all PERA employers, members have the following options concerning their member account:

- Leave the account invested in the Division Trust Funds for a future distribution or retirement benefit; however, a distribution must begin by April 1 following the year in which the member reaches age 70½.
- Request a distribution of the member account plus an applicable match. Such a distribution cancels the refunding member's service credit and any benefit entitlements associated with the account. The distribution may be taken as cash with the resulting tax consequences or as a rollover to an eligible qualified plan, 403(b) plan, 457 plan, or an Individual Retirement Account.

## Notes to the Financial Statements

(In Thousands of Dollars)

### Matching Amounts

Members under the PERA benefit structure who withdraw their accounts on or after reaching retirement eligibility or age 65 receive their member account plus a 100 percent match on eligible amounts. Due to SB 10-001, as of January 1, 2011, members under the PERA benefit structure who withdraw their accounts before reaching retirement eligibility must have five years of earned service credit in order to receive a 50 percent match. All contributions received prior to January 1, 2011, are eligible for the 50 percent match regardless of how much service credit the member has earned. However, contributions received after January 1, 2011, will not be eligible for the 50 percent match until the member earns five years of service credit.

Members under the DPS benefit structure who terminated employment on or after January 1, 2001, and withdraw their accounts on or after reaching retirement eligibility receive their member account plus a 100 percent match on eligible amounts. Members under the DPS benefit structure who withdraw their accounts before reaching retirement eligibility receive a refund of their member accounts and do not receive any match.

### Highest Average Salary

Plan benefits, described below, generally are calculated as a percentage of the member's three-year highest average salary (HAS). The following conditions apply to the HAS calculation:

- *For all members of the PERA benefit structure, except judges, eligible to retire as of January 1, 2011, who were hired before January 1, 2007, and who retire on or after January 1, 2009:* HAS is determined by the highest annual salaries associated with four periods of 12 consecutive months of service credit. The four 12-month periods selected do not have to be consecutive nor do they have to include the last four years of membership. The lowest of the four periods becomes a base year used as a starting point for a 15 percent cap on annual salary increases for the next three periods that are used to determine the applicable HAS. This salary cap applies regardless of when the annual salaries used in the HAS calculation occurred.
- *For all members of the PERA benefit structure, except judges, not eligible to retire as of January 1, 2011, or members of the PERA benefit structure who are hired on or after January 1, 2007, regardless of the date of retirement:* HAS is determined by the highest annual salaries associated with four periods of 12 consecutive months of service credit. The four 12-month periods selected do not have to be consecutive nor do they have to include the last four years of membership. The lowest of the four periods becomes a base year used as a starting point for an 8 percent cap on annual salary increases for the next three periods that are used to determine the applicable HAS. This salary cap applies regardless of when the annual salaries used in the HAS calculation occurred.
- *For members of the Judicial Division Trust Fund (judges) regardless of the date of hire or the date of retirement:* HAS is one-twelfth of the highest annual salary associated with one period of 12 consecutive months of service credit.
- *For members of the DPS benefit structure who are eligible to retire as of January 1, 2011:* HAS is the average monthly salary of the 36 months of earned service having the highest salaries.
- *For members of the DPS benefit structure who are not eligible to retire as of January 1, 2011:* HAS is determined by the highest annual salaries associated with four periods of 12 consecutive months of service credit. The four 12-month periods selected do not have to be consecutive nor do they have to include the last four years of membership. The lowest of the four periods becomes a base year used as a starting point for an 8 percent cap on annual salary increases for the next three periods that are used to determine the applicable HAS. This salary cap applies regardless of when the annual salaries used in the HAS calculation occurred.

**Notes to the Financial Statements***(In Thousands of Dollars)***Service Retirement Benefits—PERA Benefit Structure**

Upon termination of PERA-covered employment and reaching eligibility for service retirement benefits, a member may begin receipt of benefits as shown below.

**SERVICE RETIREMENT ELIGIBILITY FOR MEMBERS  
(OTHER THAN STATE TROOPERS) HIRED BEFORE JULY 1, 2005,  
WITH FIVE YEARS OF SERVICE CREDIT ON JANUARY 1, 2011**

<i>Age Requirement (in years)</i>	<i>Service Credit Requirement (in years)</i>
50	30
55	Age and Service = 80 or more
60	20
65	5
65	Less than 5 but 60 payroll postings <sup>1</sup>

<sup>1</sup> Retiring members who are age 65 and have less than five years of service credit and less than 60 payroll postings will receive a service retirement benefit under the Money Purchase Formula only.

**SERVICE RETIREMENT ELIGIBILITY FOR MEMBERS  
(OTHER THAN STATE TROOPERS) HIRED BEFORE JANUARY 1, 2011,  
WITH LESS THAN FIVE YEARS OF SERVICE CREDIT ON JANUARY 1, 2011**

<i>Age Requirement (in years)</i>	<i>Service Credit Requirement (in years)</i>
Any Age	35
55	30
55	Age and Service = 85 or more
60	25
65	5
65	Less than 5 but 60 payroll postings <sup>1</sup>

<sup>1</sup> Retiring members who are age 65 and have less than five years of service credit and less than 60 payroll postings will receive a service retirement benefit under the Money Purchase Formula only.

**SERVICE RETIREMENT ELIGIBILITY FOR MEMBERS  
(OTHER THAN STATE TROOPERS) HIRED ON OR AFTER JULY 1, 2005,  
BUT BEFORE JANUARY 1, 2007,  
WITH FIVE YEARS OF SERVICE CREDIT ON JANUARY 1, 2011**

<i>Age Requirement (in years)</i>	<i>Service Credit Requirement (in years)</i>
Any Age	35
55	Age and Service = 80 or more
60	20
65	5
65	Less than 5 but 60 payroll postings <sup>1</sup>

<sup>1</sup> Retiring members who are age 65 and have less than five years of service credit and less than 60 payroll postings will receive a service retirement benefit under the Money Purchase Formula only.

**SERVICE RETIREMENT ELIGIBILITY FOR MEMBERS  
(OTHER THAN STATE TROOPERS) HIRED ON OR AFTER JANUARY 1, 2011**

<i>Age Requirement (in years)</i>	<i>Service Credit Requirement (in years)</i>
Any Age	35
58	30
58	Age and Service = 88 or more
60	28
65	5
65	Less than 5 but 60 payroll postings <sup>1</sup>

<sup>1</sup> Retiring members who are age 65 and have less than five years of service credit and less than 60 payroll postings will receive a service retirement benefit under the Money Purchase Formula only.

**SERVICE RETIREMENT ELIGIBILITY FOR MEMBERS  
(OTHER THAN STATE TROOPERS) HIRED ON OR AFTER JANUARY 1, 2007,  
BUT BEFORE JANUARY 1, 2011,  
WITH FIVE YEARS OF SERVICE CREDIT ON JANUARY 1, 2011**

<i>Age Requirement (in years)</i>	<i>Service Credit Requirement (in years)</i>
Any Age	35
55	30
55	Age and Service = 85 or more
60	25
65	5
65	Less than 5 but 60 payroll postings <sup>1</sup>

<sup>1</sup> Retiring members who are age 65 and have less than five years of service credit and less than 60 payroll postings will receive a service retirement benefit under the Money Purchase Formula only.

**SERVICE RETIREMENT ELIGIBILITY FOR STATE TROOPERS**

<i>Age Requirement (in years)</i>	<i>Service Credit Requirement (in years)</i>
Any Age	30
50	25
55	20
65	5
65	Less than 5 but 60 payroll postings <sup>1</sup>

<sup>1</sup> Retiring members who are age 65 and have less than five years of service credit and less than 60 payroll postings will receive a service retirement benefit under the Money Purchase Formula only.

## Notes to the Financial Statements

(In Thousands of Dollars)

The service retirement benefit for all retiring members, except certain judges, is the higher of the Defined Benefit Formula or the Money Purchase Formula as explained below:

- **Defined Benefit Formula**  
HAS multiplied by 2.5 percent multiplied by Years of Service Credit
- **Money Purchase Formula**  
Values the retiring member's account plus a 100 percent match on eligible amounts as of the member's retirement date. This amount is then annuitized into a monthly benefit using the retiring member's life expectancy, expected rates of return, and other actuarial factors.

In addition, a special benefit calculation applies for certain judges. Service retirement benefits for members of the Judicial Division Trust Fund (judges) who were on the bench on or before July 1, 1973, will receive the higher of the above service retirement calculation or the following:

$$[(4\% \times \text{Years of Service Credit 1-10}) + (1.66\% \times \text{Years of Service Credit Over 10-16}) + (1.5\% \times \text{Years of Service Credit Over 16-20}) + (2.5\% \times \text{Years of Service Credit over 20})]$$

In all cases, a service retirement benefit is limited to 100 percent of highest average salary and also cannot exceed the maximum benefit amount allowed by federal law.

In addition to the Service Retirement Eligibility Charts on page 61, SB 10-001 made the following change to the age and service credit requirements for a full service retirement:

- For all new members, other than State Troopers, first covered under the Plan on or after January 1, 2017, eligibility includes a modified Rule of 90 (age and service must add to 90 with a minimum age of 60). If the most recent 10 years of service credit is earned under either the School Division Trust Fund or the DPS Division Trust Fund, eligibility will include a modified Rule of 88 (age and service must add to 88 with a minimum age of 58).

### Reduced Service Retirement—PERA Benefit Structure

Reduced service retirement benefits are calculated in the same manner as a service retirement benefit with a reduction for each month prior to the member's first eligible date for a service retirement. The benefit calculation reduction factors are specified in C.R.S. § 24-51-605.

#### REDUCED SERVICE RETIREMENT ELIGIBILITY

Age Requirement (in years)	Service Credit Requirement (in years)
50	25
50 —(State Troopers only)—	20
55	20
60	5

SB 10-001 did not change the age and service requirements to be eligible for a reduced service retirement benefit nor did it change the reduced service retirement benefit for members who are eligible to retire as of January 1, 2011; for these members the current reduction factors found at C.R.S. § 24-51-605 will remain in place. The legislation did change the reduction factors used to calculate reduced benefits for those members not eligible to retire as of January 1, 2011. For these members, an actuarial equivalent reduction will be applied to the reduced service retirement benefit.

### Service Retirement and Reduced Service Retirement Benefits—DPS Benefit Structure

Members in the DPS benefit structure are eligible to receive a monthly retirement benefit when they meet the age and service requirements listed below. If the member has less than five years of service credit under the DPS benefit structure, the member does not have the option to apply for a benefit and the member is only eligible for a refund of his or her account.

If the member has five years of service credit as of January 1, 2011, the following age and service requirements apply:

#### SERVICE RETIREMENT BENEFIT

Age Requirement (in years)	Service Credit Requirement (in years)
50	30
55	25 <sup>1</sup>
65	5

<sup>1</sup> 15 years must be earned service credit

**Notes to the Financial Statements***(In Thousands of Dollars)***REDUCED SERVICE RETIREMENT BENEFIT**

<i>Age Requirement (in years)</i>	<i>Service Credit Requirement (in years)</i>
Less than 50	30
Less than 55	25
55	15

If the member does not have five years of service credit as of January 1, 2011, the following age and service requirements apply:

**SERVICE RETIREMENT BENEFIT**

<i>Age Requirement (in years)</i>	<i>Service Credit Requirement (in years)</i>
Any Age	35
55	30 <sup>1</sup>
55	Age and Service = 85 or more <sup>1</sup>
60	25
65	5

<sup>1</sup> 20 years must be earned service credit

**REDUCED SERVICE RETIREMENT BENEFIT**

<i>Age Requirement (in years)</i>	<i>Service Credit Requirement (in years)</i>
50	25
55	20
60	5

**Disability Program**

Eligible active members, other than judges, with five or more years of earned service credit are covered by the PERA Disability Program. Judges are immediately covered under the disability program. The earned service credit requirement may be waived for State Troopers who become disabled as the result of injuries in the line of duty.

Medical determinations for the disability program are outsourced to a separate disability program administrator, Unum. Applicants found to be disabled receive payments under one of two tiers:

- **Short-Term Disability (STD):** Disability applicants are eligible for STD payments if they are found to be mentally or physically incapacitated from performance of essential job duties after reasonable accommodation, and who are medically unable to earn at least 75 percent of their pre-disability earnings from any job but who are not totally and permanently incapacitated from regular and substantial gainful employment. PERA's STD program is an insurance product with PERA's disability program administrator and payments are made directly to the individual from PERA's disability program administrator. The maximum income replacement is 60 percent of the member's pre-disability PERA salary for up to 22 months.
- **Disability Retirement Benefits:** Disability applicants who are found to be totally and permanently mentally or physically incapacitated from regular and substantial gainful employment are eligible for disability retirement benefits. These benefits are paid by PERA for as long as the disability retiree remains disabled. The benefit is calculated as a percentage of the disabled member's HAS using accrued, and in some cases, projected service credit.

**Benefit Options**

Service retirees in the PERA benefit structure and all members in either the DPS benefit structure or the PERA benefit structure who meet the requirements of a disability retirement, may elect to receive their retirement or disability benefits in the form of a single-life benefit payable for the retiree's lifetime only or one of two joint-life benefits payable for the lifetime of the retiree with a continuing benefit paid upon the retiree's death to the retiree's cobeneficiary. Such option designations may only be changed under limited conditions specified in State law. The options are:

- Option 1: A single-life benefit payable for the life of the retiree and, upon the death of the retiree, no further monthly benefits are payable.
- Option 2: A joint-life benefit payable for the life of the retiree and, upon the death of the retiree, one-half of the benefit becomes payable to the cobeneficiary of the retiree for life. Upon the death of the cobeneficiary prior to the death of the retiree, an Option 1 benefit becomes payable to the retiree.
- Option 3: A joint-life benefit payable for the life of the retiree and, upon the death of the retiree, the same benefit becomes payable to the cobeneficiary of the retiree for life. Upon the death of the cobeneficiary prior to the death of the retiree, an Option 1 benefit becomes payable to the retiree.

## Notes to the Financial Statements

(In Thousands of Dollars)

Options 2 and 3 are the actuarial equivalent of Option 1.

Service retirees in the DPS benefit structure have the following options:

- Option A: A single-life benefit payable for the life of the retiree and, upon the death of the retiree, no further monthly benefits are payable.
- Option B: A single-life benefit, reduced from an Option A benefit to provide benefits to designated beneficiaries for a fixed period of time after retirement. As part of the retirement calculation, a guaranteed payment period is determined and if the retiree dies before the guaranteed period ends, the benefit will continue to the Option B beneficiary(ies) for the remainder of the guaranteed period. If the death of the retiree occurs after the guaranteed period, the benefit ends.
- Option P2: A joint-life benefit payable for the life of the retiree and, upon the death of the retiree, one-half of the benefit becomes payable to the cobeneficiary of the retiree for life. Upon the death of the cobeneficiary prior to the death of the retiree, an Option A benefit becomes payable to the retiree.
- Option P3: A joint-life benefit payable for the life of the retiree and, upon the death of the retiree, the same benefit becomes payable to the cobeneficiary of the retiree for life. Upon the death of the cobeneficiary prior to the death of the retiree, an Option A benefit becomes payable to the retiree.

Options B, P2, and P3 are the actuarial equivalent of Option A.

### Survivor Benefits Program—PERA Benefit Structure

Members who have at least one year of earned service credit are covered by the PERA survivor benefits program. This one-year requirement is waived if a member's death is job-incurred.

In the event of the covered member's death, monthly survivor benefits may be paid to the qualified survivors of the deceased. Qualified survivors generally include minor children, a surviving spouse, dependent parents, or a cobeneficiary (for deceased members who were eligible for retirement at the time of death).

Monthly benefits are specified in statute and vary based upon the deceased's HAS, years of service credit, the qualified survivor to whom benefits are to be paid, and the number of qualified survivors receiving benefits.

If at the time of death, a member has less than one year of earned service credit or with no qualified survivors, the deceased's named beneficiary or the estate receives a lump-sum payment of the deceased member's account plus a 100 percent match on eligible amounts.

### Survivor Benefits Program—DPS Benefit Structure

Active members who have at least five years of continuous service under the DPS benefit structure prior to the date of death and DPS disability retirements (prior to age 65) are covered by the Survivor Benefits Program applicable to the DPS benefit structure.

In the event of the covered member's death, the member's qualified survivors are eligible for survivor benefits as long as the named beneficiary(ies) waive their right to receive a refund of the member's contributions. Qualified survivors generally include minor children, a surviving spouse, or dependent parents.

Monthly benefits are specified in statute and vary based upon the deceased's HAS, years of service credit, the qualified survivor to whom benefits are to be paid, and the number of qualified survivors receiving benefits.

If at the time of death, a member has not met the eligibility requirements for the DPS benefit structure survivor benefits program that are specified in statute, the member's named beneficiary(ies) will receive a lump-sum payment of the deceased member's account without a match.

### Annual Increases

On an annual basis, eligible benefit recipients receive post-retirement cost-of-living adjustments called annual increases (AI). The AI payment month, eligibility, and amounts are determined by the date the retiree or deceased member began membership in PERA.

For the year 2011 and beyond the AI provisions are explained below.

- For benefit recipients of the PERA benefit structure who began membership before January 1, 2007, and whose benefit is paid based on a retirement date prior to January 1, 2011, and benefit recipients of the DPS benefit structure whose benefit is paid based on a retirement date prior to January 1, 2011:
  - **Payment Month:** The AI is paid in July.
  - **Eligibility:** The benefit recipient has been receiving benefits for at least seven months immediately preceding the July in which the AI is to be paid.

## Notes to the Financial Statements

(In Thousands of Dollars)

- **AI Amount:** The AI is 2 percent per year unless PERA has a negative investment year in which case, for the next three years, the AI becomes the lesser of 2 percent or the average of the monthly Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) amounts for the prior calendar year. The amount of the first annual increase will be prorated from the month of retirement to the first AI payment date.
- For benefit recipients of the PERA benefit structure who began membership before January 1, 2007, and whose benefit is paid based on a retirement date on or after January 1, 2011, and benefit recipients of the DPS benefit structure whose benefit is paid based on a retirement date on or after January 1, 2011, the following eligibility criteria is required:
  - **Payment Month:** The AI is paid in July.
  - **Eligibility:** For full service retirees, disability retirees, reduced service retirees who are eligible to receive a benefit on January 1, 2011, and survivor benefit recipients, the benefit recipient has received benefit payments for the 12 months prior to the July in which the AI is to be paid.  
For reduced service retirees who are not eligible to retire as of January 1, 2011: A reduced service retiree is eligible to receive the AI in July of the year in which both of the following conditions are met: (1) the retiree has received benefit payments for 12 months prior to the July in which the AI is to be paid and (2) as of January 1 of the year the AI is paid, the retiree has either reached age 60 or the age and service Rule for unreduced service retirement applicable to the retiree's Plan.
  - **AI Amount:** The AI is 2 percent per year unless PERA has a negative investment year in which case, for the next three years, the AI becomes the lesser of 2 percent or the average of the monthly CPI-W amounts for the prior calendar year.
- For benefit recipients of the PERA benefit structure who began membership on and after January 1, 2007:
  - **Payment Month:** The AI is paid in July.
  - **Eligibility:** For full service retirees, disability retirees, and survivor benefit recipients: The benefit recipient becomes eligible in July of the calendar year following the calendar year in which the benefit recipient has received 12 months of benefit payments.  
For reduced service retirees: A reduced service retiree is eligible to receive the AI in July of the year in which both of the following conditions are met: (1) as of January 1 of the year the AI is to be paid, the retiree has received 12 months of benefit payments in the prior calendar year and (2) as of January 1 of the year the AI is paid, the retiree has either reached age 60 or the age and service Rule for unreduced service retirement applicable to the retiree's Plan.
  - **AI Amount:** The AI is the lesser of 2 percent or the average of the monthly CPI-W amounts for the prior calendar year. In no case can the sum of AIs paid to a Division's benefit recipients exceed 10 percent of the divisional Annual Increase Reserve (AIR).

**Changes to the 2 Percent AI Cap:** If PERA's overall funded status is at or above 103 percent, the AI cap of 2 percent will increase by 0.25 percent per year. If after PERA's overall funded status reaches 103 percent and it subsequently drops below 90 percent, the 2 percent AI cap will decrease by 0.25 percent per year, but will never drop below 2 percent.

### Indexing of Benefits

Under previous law, inactive members who were covered by the Plan as of December 31, 2006, who have 25 or more years of service credit but do not begin receiving monthly benefits, have their benefit amount increased by the applicable AI granted by PERA from their date of termination of membership to their effective date of retirement. SB 10-001 removed this provision for all members not eligible to retire as of January 1, 2011.

### Suspending Benefits

If a retiree suspends retirement, returns to membership, and earns at least one year of service credit, a separate benefit will be earned. In this case, the retiree may opt to refund the contributions remitted with interest and a match. The original benefit will not be recalculated.

If less than one year of service credit is earned during the return to membership, the retiree will be required to refund the contributions remitted with interest and a 100 percent or 50 percent match before the original benefit will resume.

### Working After Retirement Without Suspending Benefits

- **Retiree Contributions:** With a few statutory exceptions, employers are required to remit employer contributions, AED, and SAED on salary earned by retirees who work for them but do not suspend retirement and return to membership. Beginning January 1, 2011, working retirees are required to make contributions at a percentage equal to the member contribution rate. Under C.R.S. § 24-51-101 (53), working retiree contributions are nonrefundable and are not deposited into member accounts. PERA deposits these contributions into the employer reserve.

## Notes to the Financial Statements

(In Thousands of Dollars)

- **Limits on Working After Retirement:** With a few statutory exceptions, retirees may work up to 110 days/720 hours per calendar year for a PERA employer with no reduction in benefits. In addition, each employer assigned to the School Division Trust Fund, DPS Division Trust Fund, and each Higher Education Institution assigned to the State Division Trust Fund may designate on a calendar year basis, up to 10 service retirees who may work up to 30 additional days for a total of 140 days/916 hours in a calendar year. The employer contributions, AED, SAED, and working retiree contributions are due on all salary earned.

### **Benefit Provisions—Voluntary Investment Program and Defined Contribution Retirement Plan**

See Note 8.

### **Benefit Provisions—Deferred Compensation Plan**

See Note 8.

### **Benefit Provisions—Health Care Trust Funds**

See Note 9.

### **Pension Plan Disclosure Statements for Colorado PERA Employees**

All employees of PERA, an affiliated employer, are members of the State Division Trust Fund, earn, and accrue benefits as would any other member as described above. PERA, as an affiliated employer, contributes to the State Division Trust Fund (see Note 4); PERA also contributes to the Health Care Trust Fund (see Note 9) and employees are entitled to participate in the 401(k) component of the Voluntary Investment Program and the 457 Deferred Compensation Plan (see Note 8).

PERA's employer contributions to the State Division Trust Fund for the years ended December 31, 2012, 2011, and 2010, were \$3,139, \$2,405, and \$2,316, respectively, equal to its required contributions for each year. PERA's member contributions to the State Division Trust Fund for the years ended December 31, 2012, 2011, and 2010, were \$2,036, \$2,231, and \$1,806, respectively. PERA's contributions to the Health Care Trust Fund for the years ended December 31, 2012, 2011, and 2010, were \$224, \$218, and \$203, respectively, equal to its required contributions for each year. The contributions of PERA members to the 401(k) Plan for the years ended December 31, 2012, 2011, and 2010 were \$1,717, \$1,690, and \$1,404, respectively. Contributions to the 457 Plan by PERA members for the years ended December 31, 2012, 2011, and 2010 were \$280, \$268, and \$203, respectively. PERA also provides its employees with an employer partial match to their contributions to the 401(k) Plan, and the totals for the years ended December 31, 2012, 2011, and 2010, were \$373, \$346, and \$151, respectively.

### **Life Insurance Reserve**

The Life Insurance Reserve (LIR) is an accumulation of dividends received from an insurance company as a return on the premiums paid by those members who have voluntarily enrolled in life insurance programs, adjusted for actual historical experience. The proceeds received from the LIR are used to pay the administrative costs of the plan.

### **Termination of PERA**

If PERA is partially or fully terminated for any reason, C.R.S. § 24-51-217 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

### **Reporting Entity**

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

PERA is an instrumentality of the State of Colorado (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.

### **Basis of Presentation**

The accompanying financial statements are prepared in accordance with accounting principles generally accepted in the United States of America that apply to governmental accounting for fiduciary funds including the Governmental Accounting Standards Board (GASB) Statements numbers 25, 28, 34, 37, 40, 43, 50, and 53.

In June 2012, GASB issued Statement No. 67, "Financial Reporting for Pension Plans—an amendment of GASB Statement No. 25." Statement No. 67 establishes new standards for financial reporting and note disclosure by defined benefit pension plans administered through qualified trusts, and note disclosure requirements for defined contribution pension plans administered through qualified trusts. Statement No. 67 will be effective for periods beginning after June 30, 2013, and PERA has chosen not to early adopt Statement No. 67. One of the major changes in the new standard is the rate used to discount projected benefit payments. The new standard states the long-term expected rate of return on the investments of the pension plan should be applied only to available pension plan assets that are expected to be invested using a strategy to achieve that return.



## Notes to the Financial Statements

(In Thousands of Dollars)

If there comes a point in the projections when plan net position and contributions related to active and inactive employees is no longer projected to be greater than or equal to projected benefit payments related to those employees and administrative expenses, then from that point forward the pension plan will be required to discount the projected benefit payments using a municipal borrowing rate—a tax-exempt, high-quality 20-year general obligation bond index rate. PERA has not yet determined the impact of this standard on its financial statements and disclosures.

Also in June 2012, GASB issued Statement No. 68, “Accounting and Financial Reporting for Pensions—an amendment of GASB Statement No. 27.” Statement No. 68 establishes new standards for accounting for pensions by employers whose employees are provided with pensions through pension plans administered through trusts, or equivalent arrangements, that meet the characteristics defined in the Statements and addresses accounting and financial reporting issues of certain nonemployer entities that contribute to such plans. Statement No. 68 will be effective for periods beginning after June 30, 2014, and PERA has chosen not to early adopt Statement No. 68. PERA has not yet determined the impact of this standard on its financial statements and disclosures.

### **Basis of Accounting**

The accompanying financial statements for the pension trust funds, the private purpose trust fund, and the other postemployment benefit plans are prepared using the economic resources measurement focus and the accrual basis of accounting. The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires PERA to use estimates and assumptions that affect the accompanying financial statements and disclosures. Actual results could differ from those estimates. Member and employer contributions are recognized as revenues in the period in which the compensation becomes payable to the member and the employer is statutorily committed to pay these contributions to the pension trust funds, the HCTF, and the DPS HCTF. Benefits and refunds are recognized when due and payable.

### **Fund Accounting**

The financial activities of the State Division Trust Fund, the School Division Trust Fund, the Local Government Division Trust Fund, the Judicial Division Trust Fund, the DPS Division Trust Fund, the HCTF, the DPS HCTF, the LIR, the Voluntary Investment Program, the Defined Contribution Retirement Plan, and the Deferred Compensation Plan are recorded in separate funds. The State, School, Local Government, Judicial, and DPS Division Trust Funds maintain separate accounts, and all actuarial determinations are made using separate division-based information.

The Division Trust Funds, the HCTF, the DPS HCTF, and the LIR pool their investments into a combined investment portfolio. Investment value and earnings of the investment pool are allocated among the funds based on each fund’s percentage ownership. As of December 31, 2012, the ownership percentages of each fund are shown in the table below.

#### Ownership Percentages

State	31.78%
School	51.40%
Local Government	7.89%
Judicial	0.60%
Denver Public Schools	7.45%
HCTF	0.80%
DPS HCTF	0.04%
LIR	0.04%
<b>Total</b>	<b>100.00%</b>

The administrative activities and operating assets and liabilities are pooled and recorded in a Common Operating Fund. Expenses incurred and net operating assets are allocated from the Common Operating Fund to the Division Trust Funds based on administrative staff workload devoted to these funds and the ratio of the number of active and retired members in each division to the total for all the Division Trust Funds. Expenses are allocated to the HCTF and DPS HCTF based on administrative fees charged to participants. Expenses are allocated to the Voluntary Investment Program, the Defined Contribution Retirement Plan, and the Deferred Compensation Plan based on administrative staff workload and the ratio of net assets in each program or plan to the total for the Program and Plans. Expenses are allocated to the LIR based on administrative staff workload.

### **Fair Value of Investments**

Plan investments are presented at fair value in the Statement of Net Position. Global stocks and fixed income securities traded on a national or international exchange are valued at the last reported sales price. Fixed income securities not traded on a national or international exchange are based on equivalent values of comparable securities with similar yield and risk.

Alternative investments (private equity) include investments in leveraged buyouts, venture capital, and special situations partnerships. PERA invests as a limited partner in these funds which are long-term and generally illiquid. As a result, investors are subject to redemption restrictions which generally limit distributions and restrict the ability of limited partners to exit a partnership investment prior to its dissolution. Alternative investments are valued using their respective net asset values (NAV) and are generally audited annually. The most significant element of NAV is

## Notes to the Financial Statements

(In Thousands of Dollars)

the fair value of the investment holdings. These holdings are valued by the general partners in conjunction with management, investment advisors, and valuation specialists. The valuation techniques vary based on investment type and involve a certain degree of expert judgment. The fair value for these investments could differ significantly if a ready market for these assets existed.

Real estate is held directly, as a limited partner, or in commingled funds. These investments are long-term and illiquid in nature. As a result, investors are subject to redemption restrictions which generally limit distributions and restrict the ability of limited partners to exit a partnership investment prior to its dissolution. The fair value of directly-owned real estate investments and open-end commingled funds are based on periodic independent appraisals. Limited partner real estate investments and closed-end commingled real estate equity are valued based on their respective NAV, and are generally audited annually. The most significant element of NAV is the fair value of the investment holdings. These holdings are valued by the general partners using valuation assumptions based on both market and property specific inputs which are not observable and involve a certain degree of expert judgment. Real estate debt is valued on the basis of future principal and interest payments and is discounted at prevailing interest rates for similar instruments. The fair value for these investments could differ significantly if a ready market for these assets existed.

The Opportunity Fund asset class is comprised of timber, commodities, risk parity, and tactical opportunity investments. PERA has both direct and indirect investments in this asset class. Indirect investments include ownership of commingled fund investments which are long-term and generally illiquid. As a result, investors are subject to redemption restrictions which generally limit distributions and restrict the ability to exit the commingled fund investment. The fair value of directly owned timber investments is based on periodic independent appraisals. PERA gains exposure to commodities by direct investments in derivative positions on commodities and by investing in a commodities-based commingled fund. The fair value of commodity investments is based on the underlying value of the commodities and/or the associated derivative positions. Risk parity and tactical opportunity commingled funds are valued using their respective NAV and are generally audited annually. The most significant element of NAV is the fair value of the investment holdings. These holdings are valued by the general partners in conjunction with management, investment advisors, and valuation specialists. The valuation techniques vary based on investment type and involve a certain degree of subjective judgment. The fair value for these investments could differ significantly if a ready market for these assets existed.

Interests in commingled funds are valued using the NAV per unit of each fund. The NAV reported by the fund manager is based on the market value of the underlying investment owned by each fund, minus its liabilities, divided by the number of shares outstanding. Investments in mutual funds are valued at the NAV of shares held at year-end.

The PERAdvantage Capital Preservation Fund in the three defined contribution funds is a stable value fund and the value of the fund is based on the contract value of the investments. This value is the amortized cost of the securities owned by the separate account, plus cash, plus accrued interest less liabilities.

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

### ***Property, Equipment, and Intangible Assets***

Property and equipment are carried at cost, less accumulated depreciation. All costs of property and equipment \$5,000 (actual dollars) or greater are capitalized. The cost of computer software developed for internal operational use \$500,000 (actual dollars) or greater is 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 three to forty years in the following major classes: vehicles, five years; computer and office equipment, three years to five years; office furniture and leasehold improvements, five to ten years; building and building additions, forty years; and internally developed computer software, five years.

### ***Health Care Trust Funds Specific Policies***

See Note 9.

## Notes to the Financial Statements

(In Thousands of Dollars)

**Note 3—Interfund Transfers and Balances**

Interfund transfers of assets take place on a regular basis between the Division Trust Funds. The transfers occur upon the initiation of a retirement or survivor benefit where the member earned or purchased service in another Division Trust Fund in addition to the Fund that is paying the benefit. The transfers for the year ended December 31, 2012, consisted of the following amounts:

**Interfund Transfers**

	STATE DIVISION TRUST FUND	SCHOOL DIVISION TRUST FUND	LOCAL GOVERNMENT DIVISION TRUST FUND	JUDICIAL DIVISION TRUST FUND	DPS DIVISION TRUST FUND	HEALTH CARE TRUST FUND	DPS HEALTH CARE TRUST FUND
Transfers in from other Funds for retirements	\$19,736	\$13,941	\$7,780	\$2,556	\$1,765	\$—	\$—
Transfers out to other Funds for retirements	(20,194)	(18,702)	(5,254)	—	(1,628)	—	—
Transfers in from other Funds for survivor benefits	4	—	—	—	—	—	—
Transfers out to other Funds for survivor benefits	—	(4)	—	—	—	—	—
Transfers out to Health Care Trust Funds for purchased service credit	(3,062)	(4,217)	(1,863)	(21)	(53)	—	—
Transfers in to Health Care Trust Funds for purchased service credit	—	—	—	—	—	9,163	53

As of December 31, 2012, interfund balances existed between funds due to unreimbursed internal operating expenses. The interfund balances consisted of the following amounts:

**Interfund Balances****DIVISION TRUST FUND**

State Division Trust Fund	\$684
School Division Trust Fund	1,107
Local Government Division Trust Fund	170
Judicial Division Trust Fund	13
Denver Public Schools Division Trust Fund	160
Voluntary Investment Program	(1,358)
Defined Contribution Retirement Plan	(407)
Deferred Compensation Plan	(388)
HCTF	17
DPS HCTF	1
Life Insurance Reserve	1

**Note 4—Contributions****Division Trust Funds—Defined Benefit Pension Plans**

Members and employers are required to contribute to PERA at a rate set by statute. The contribution requirements of plan members and affiliated employers are established under C.R.S. § 24-51-401 *et seq.* Colorado State law provisions may be amended from time to time by the Colorado General Assembly.

Members are required to contribute 8 percent of their PERA-includable salary (State Troopers contribute 10 percent). PERA records these contributions in individual member accounts. Member contributions were tax-deferred for federal and Colorado income tax purposes, effective July 1, 1984, (January 1, 1986, for members of the DPS benefit structure) and January 1, 1987, respectively. Prior to those dates, contributions were on an after-tax basis. PERA-affiliated employers also contribute a percentage of active member covered payrolls for the employer rate, ranging from 10.15 percent to 13.75 percent. SB 10-146 and SB 11-076 required that member contributions increase and employer contributions decrease by 2.50 percent for the State and Judicial Divisions for the two-year period beginning July 1, 2010, through June 30, 2012.

Employers that rehire a PERA retiree as an employee or under any other work arrangement (working retiree) are required to report and pay employer contributions on the amounts paid to the working retiree. In addition, effective January 1, 2011, working retirees are required to make contributions at a percentage of salary equal to the member contribution rate. However, under C.R.S. §§ 24-51-101 (53), these contributions are not member contributions, are not deposited into a member account, and therefore, are nonrefundable to the working retiree.

## Notes to the Financial Statements

(In Thousands of Dollars)

Beginning January 1, 2006, employers are required to pay the Amortization Equalization Disbursement (AED) and, beginning January 1, 2008, employers are required to pay the Supplemental Amortization Equalization Disbursement (SAED). The employers pay these amounts on the PERA-includable salary for all employees working for the employer who are members of PERA, or who are eligible to elect to become members of PERA on or after January 1, 2006, including any amounts paid in connection with the employment of a retiree by an employer. PERA uses these payments to help amortize the unfunded actuarial liability. The AED and SAED are set to increase in future years, as described in the table on the next page. SB 10-001 provides for adjustment of the AED and SAED based on the year-end funded status within a particular Division Trust Fund. If a particular Division Trust Fund reaches a funded status of 103 percent, a decrease in the AED and SAED is mandated and if it subsequently falls below a funded status of 90 percent, an increase in the AED and SAED is mandated. For the Local Government and Judicial Divisions, if the funded ratio reaches 90 percent and subsequently falls below 90 percent, an increase in the AED and SAED is mandated. AED and SAED rates cannot exceed the maximums listed in the table on the next page.

C.R.S. § 24-51-412 permits a Pension Certificates of Participation (PCOP) offset to the DPS Division employer contribution rate. The offset, expressed as a percentage of covered payroll, is equal to the annual assumed payment obligations for PCOPs issued in 1997 and 2008 by the Denver Public Schools at a fixed effective annual interest rate of 8.50 percent. At a minimum, the DPS Division employer rate, after applying the PCOP offset, must be sufficient to fund the DPS HCTF and the AIR as it applies to the DPS Division. The staff of Denver Public Schools provided the PCOP offset rate of 15.37 percent for 2012.

C.R.S. § 24-51-401(1.7) (e) recognizes the effort to equalize the funded status of the DPS Division and the School Division of PERA. As of December 31, 2012, the funded ratio of the DPS Division was 84.0 percent and the funded ratio of the School Division was 62.1 percent. Beginning January 1, 2015, and every fifth year thereafter, the statute requires a true-up calculation to confirm the equalization of the funded status of these two divisions. The true-up calculation is an actuarial projection to assure the funded status of these divisions will be equal in 30 years from 2010. In the event a true-up calculation does not project equalization between these divisions over the 30-year period, the Board shall recommend an adjustment of the DPS Division employer contribution rate to the Colorado General Assembly. An adjustment to the DPS Division contribution rate may result in a significant increase in the total contributions paid by the DPS Division employers.

PERA-affiliated employers forward the contributions to PERA for deposit. PERA transfers a portion of these contributions equal to 1.02 percent of the reported salaries into the HCTF or DPS HCTF for health care benefits and 1.0 percent of applicable reported salaries into the AIR of each division for future benefit increases, with the remainder of these contributions transferred into a Trust Fund established for each division for the purpose of creating actuarial reserves for future benefits.

The contribution rates for the combined employer retirement benefits and health care benefits along with the member contribution rates for the periods January 1, 2012, through June 30, 2012, and July 1, 2012, through December 31, 2012, are as follows:

### Contribution Rates

January 1, 2012—June 30, 2012

DIVISION	MEMBERSHIP	EMPLOYER CONTRIBUTION RATE	AMORTIZATION EQUALIZATION DISBURSEMENT	SUPPLEMENTAL AMORTIZATION EQUALIZATION DISBURSEMENT	DENVER PUBLIC SCHOOLS OFFSET	TOTAL CONTRIBUTION RATE PAID BY EMPLOYER	MEMBER CONTRIBUTION RATE
State	All members						
	(except State Troopers)	7.65%	3.00%	2.50%	—	13.15%	10.50%
State	State Troopers	10.35%	3.00%	2.50%	—	15.85%	12.50%
School	All members	10.15%	3.00%	2.50%	—	15.65%	8.00%
Local Government	All members	10.00%	2.20%	1.50%	—	13.70%	8.00%
Judicial	All members	11.16%	2.20%	1.50%	—	14.86%	10.50%
Denver Public Schools	All members	13.75%	3.00%	2.50%	(15.37%)	3.88%	8.00%

July 1, 2012—December 31, 2012

DIVISION	MEMBERSHIP	EMPLOYER CONTRIBUTION RATE	AMORTIZATION EQUALIZATION DISBURSEMENT	SUPPLEMENTAL AMORTIZATION EQUALIZATION DISBURSEMENT	DENVER PUBLIC SCHOOLS OFFSET	TOTAL CONTRIBUTION RATE PAID BY EMPLOYER	MEMBER CONTRIBUTION RATE
State	All members						
	(except State Troopers)	10.15%	3.00%	2.50%	—	15.65%	8.00%
State	State Troopers	12.85%	3.00%	2.50%	—	18.35%	10.00%
School	All members	10.15%	3.00%	2.50%	—	15.65%	8.00%
Local Government	All members	10.00%	2.20%	1.50%	—	13.70%	8.00%
Judicial	All members	13.66%	2.20%	1.50%	—	17.36%	8.00%
Denver Public Schools	All members	13.75%	3.00%	2.50%	(15.37%)	3.88%	8.00%

## Notes to the Financial Statements

(In Thousands of Dollars)

## Future AED and SAED Rates

PERIOD	STATE DIVISION TRUST FUND		SCHOOL DIVISION TRUST FUND		LOCAL GOVERNMENT DIVISION TRUST FUND		JUDICIAL DIVISION TRUST FUND		DPS DIVISION TRUST FUND <sup>1</sup>	
	AED	SAED	AED	SAED	AED	SAED	AED	SAED	AED	SAED
1/1/2013 — 12/31/2013	3.40%	3.00%	3.40%	3.00%	2.20%	1.50%	2.20%	1.50%	3.40%	3.00%
1/1/2014 — 12/31/2014	3.80%	3.50%	3.80%	3.50%	2.20%	1.50%	2.20%	1.50%	3.80%	3.50%
1/1/2015 — 12/31/2015	4.20%	4.00%	4.20%	4.00%	2.20%	1.50%	2.20%	1.50%	4.20%	4.00%
1/1/2016 — 12/31/2016	4.60%	4.50%	4.50%	4.50%	2.20%	1.50%	2.20%	1.50%	4.50%	4.50%
1/1/2017 — 12/31/2017	5.00%	5.00%	4.50%	5.00%	2.20%	1.50%	2.20%	1.50%	4.50%	5.00%
1/1/2018 — 12/31/2018	5.00%	5.00%	4.50%	5.50%	2.20%	1.50%	2.20%	1.50%	4.50%	5.50%
Maximum allowable limitations	5.00%	5.00%	4.50%	5.50%	5.00%	5.00%	5.00%	5.00%	4.50%	5.50%

<sup>1</sup> DPS Division employers are permitted to reduce the AED and SAED by the PCOP offset, as specified in C.R.S. § 24-51-412 et seq.

**Replacement Benefit Arrangements**

Internal Revenue Code (IRC) § 415 limits the amount of the benefit payable to a retiree or survivor in a defined benefit plan. In some cases, the IRC limit is lower than the benefit calculated under the plan provisions. IRC § 415(m) allows a government plan to set up a “qualified governmental excess benefit arrangement” to pay the difference to those retirees. To accomplish this, PERA has entered into agreements with the employers who last employed the affected retirees. Under the agreement, the employer pays the benefit difference to the retiree from a portion of the current employer contributions. In 2012, employers under these agreements used current employer contributions to pay retirees \$1,489 in the State Division; \$679 in the School Division; \$928 in the Local Government Division; \$0 in the Judicial Division, and \$0 in the DPS Division.

**Contributions—Voluntary Investment Program and Defined Contribution Retirement Plan**

See Note 8.

**Contributions—Deferred Compensation Plan**

See Note 8.

**Contributions—Health Care Trust Funds**

See Note 9.

**Note 5—Investments****Investment Authority**

Under C.R.S. § 24-51-206, the Board has responsibility for the investment of PERA’s funds, with the following investment limitations:

- The aggregate amount of monies invested in corporate stocks or corporate bonds, notes, or debentures that are convertible into corporate 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.

**Cash**

Cash balances represent both operating cash accounts held by the banks and investment cash on deposit with the master custodian. To maximize investment income, the float caused by outstanding checks is invested, thus causing a possible negative book balance. Negative book balances are reflected in the liabilities section of the Statement of Net Position.

The carrying value of cash and short-term investments at December 31, 2012, on the Statement of Net Position includes short-term fixed income securities of \$283,307, pending foreign exchange contracts of (\$373) and deposit and money market funds of \$726,095 for a total of \$1,009,029. PERA considers fixed income securities with a maturity of 12 months or less to be short-term investments.

## Notes to the Financial Statements

(In Thousands of Dollars)

The table below presents the PERA combined total deposits and money market funds as of December 31, 2012.

	CARRYING VALUE	BANK BALANCE
Deposits with banks (fully insured by federal depository insurance)	\$1,444	\$1,422
Deposits held at bank (uncollateralized, held by PERA's agent in PERA's name)	24,795	24,795
Short-term investment funds held at bank (shares in commingled funds, held by PERA's agent in PERA's name)	699,856	699,856
<b>Total deposits and money market funds</b>	<b>\$726,095</b>	<b>\$726,073</b>

### Securities Lending Transactions

C.R.S. § 24-51-206 and Board policies permit PERA to lend its securities to broker-dealers and other entities with a simultaneous agreement to return the collateral for the same securities in the future. PERA utilized two lending agents in 2012, its custodian, The Northern Trust Company (Northern Trust) and Deutsche Bank.

Northern Trust primarily lends international stocks and fixed income securities for cash collateral. U.S. securities are loaned versus collateral valued at 102 percent of the market value of the securities plus any accrued interest. Non-U.S. securities are loaned versus collateral valued at 105 percent of the market value of the securities plus any accrued interest. Collateral is marked to market daily if price movements exceed certain minimal thresholds.

Northern Trust invests the cash collateral related to PERA's loaned securities in a separate account, the PERA Custom Fund, according to guidelines stipulated by PERA. As of December 31, 2012, the total market value of securities on loan with Northern Trust cannot exceed \$600,000. Northern Trust's Senior Credit Committee sets borrower credit limits.

Deutsche Bank is a third-party lending agent for PERA. Deutsche Bank lends domestic and international stocks for cash collateral. U.S. securities are loaned versus collateral valued at a minimum of 102 percent of the market value of the securities. International securities are loaned versus collateral valued at a minimum of 105 percent of the market value of the securities. Collateral is marked to market daily. Borrower credit limits are assigned by Deutsche Bank's Global Credit Risk Department.

As of December 31, 2012, and December 31, 2011, the total unrealized loss relating to the short-term collateral investments was \$3,724 and \$4,135, respectively.

The table below represents the balances relating to the securities lending transactions at December 31, 2012.

SECURITIES LENT FOR CASH COLLATERAL	FAIR VALUE OF UNDERLYING SECURITIES	CASH COLLATERAL RECEIVED	CASH COLLATERAL INVESTMENT VALUE
Cash and cash equivalents	\$—	\$—	\$1,207,926
Fixed income	317,737	324,693	226,936
Global stocks	1,079,322	1,113,893	—
<b>Total</b>	<b>\$1,397,059</b>	<b>\$1,438,586</b>	<b>\$1,434,862</b>

As of December 31, 2012, PERA had no credit risk exposure to borrowers because the associated value of the collateral held exceeded the value of the securities borrowed. The contracts with PERA's lending agents provide that the lending agents will indemnify PERA if loaned securities are not returned and PERA suffers direct losses due to a borrower's default or the lending agent's noncompliance with the contract. PERA had no losses on securities lending transactions resulting from the default of a borrower or the lending agent for the year ended December 31, 2012. PERA has limited the total market value of securities outstanding to one borrower to 25 percent of the total market value of all securities outstanding in the program.

PERA or the borrower can terminate any security loan on demand. Though every loaned security can be sold and reclaimed at any time from the borrower, the weighted average loan life of overall loans at Northern Trust was approximately 65 days and at Deutsche Bank was approximately 110 days as of December 31, 2012. At Northern Trust and Deutsche Bank, all loans were done on an overnight (one day) basis as of December 31, 2012. The PERA Custom Fund had a weighted average maturity of 30 days as of December 31, 2012. Deutsche Bank invests PERA's cash collateral in a separate account. As of December 31, 2012, the weighted average maturity of the separate account was 15 days. The weighted average life of a security or instrument is, in the case of a fixed rate security or instrument, the date on which final payment is due or the principal amount can be recovered through demand (if applicable). In the case of a floating or variable rate security or instrument, weighted average life is the shorter of the period of time remaining until either the next readjustment of the interest rate or the principal amount can be recovered through demand (if applicable). Since the majority of securities loans are done on an overnight basis, there is usually a difference between the weighted average maturity of the investments made with the cash collateral provided by the borrower and the maturities of the securities loans.

**Notes to the Financial Statements***(In Thousands of Dollars)*

The following table represents the balances relating to the securities lending transactions as of December 31, 2012, and December 31, 2011.

	FAIR VALUE OF UNDERLYING SECURITIES DECEMBER 31, 2012	FAIR VALUE OF UNDERLYING SECURITIES DECEMBER 31, 2011
Fixed income	\$317,737	\$330,859
Global stocks	1,079,322	1,059,371
<b>Total</b>	<b>\$1,397,059</b>	<b>\$1,390,230</b>

As of December 31, 2012, the fair value of lent securities was \$1,397,059, the value of associated cash collateral received was \$1,438,586, and the cash collateral investment value was \$1,434,862. PERA's income net of expenses from securities lending was \$12,756 for the year ended December 31, 2012. Included in net securities lending income for the year ended December 31, 2012, is \$271 from commingled funds. As of December 31, 2011, the fair value of lent securities was \$1,390,230, the value of associated cash collateral received was \$1,427,877, and the cash collateral investment value was \$1,423,742. PERA's income net of expenses from securities lending was \$14,535 for the year ended December 31, 2011. Included in net securities lending income for the year ended December 31, 2011, is \$438 from commingled funds.

***Custodial Credit Risk***

Custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, PERA would not be able to recover the value of investment or collateral securities that are in possession of an outside party. PERA has no formal policy for custodial credit risk for investments. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in PERA's name and are held by either a counterparty or the counterparty's trust department or agent, but not in PERA's name. Northern Trust is the master custodian for the majority of PERA's securities. At December 31, 2012, there were no investment or collateral securities subject to custodial credit risk and \$24,792 in foreign currency deposits held at Northern Trust which were uninsured and uncollateralized and therefore exposed to custodial credit risk.

***Concentration of Credit Risk***

Concentration of credit risk is the risk of loss that may be attributed to the magnitude of PERA's investment in a single issuer. C.R.S. § 24-51-206 (3) requires that no investment of the fund in common or preferred stock, or both, of any single corporation shall be of an amount which exceeds 5 percent of the then book value of the fund, nor shall the fund acquire more than 12 percent of the outstanding stock or bonds of any single corporation. The 12 percent requirement does not apply to governmental securities (U.S. Treasuries, sovereigns, etc.), GSE securities (agencies including FNMA, FHLMC, etc.), mortgage-backed securities (agency or non-agency), commercial mortgage-backed securities (CMBS), asset-backed securities, or municipal securities. There is no single issuer exposure that comprises 5 percent of the then book value of the fund and no holdings greater than 12 percent of the outstanding stock or bonds of any single corporation at December 31, 2012.

**Reconciliation of Credit and Interest Rate Risk Disclosures to Financial Statements**

	AS OF DECEMBER 31, 2012
Fixed income	\$10,099,258
Real estate debt	64,998
Fixed-income securities classified as short-term	283,307
<b>Total fixed income securities</b>	<b>\$10,447,563</b>

***Credit Risk***

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligation. PERA's credit risk policy is as follows: As of December 31, 2012, PERA held investments across the credit ratings spectrum, with the majority invested in investment grade issuers as defined as a minimum rating of Baa3/BBB-, issued by Moody's and Standard and Poor's (S&P), respectively. Investment-grade fixed income managers are prohibited from buying securities rated CCC or below. Some investment grade managers are allowed to purchase below investment grade securities, but in general are limited to no more than 5 percent exposure to below investment grade securities. For portfolio managers that manage below investment grade portfolios, securities rated CCC or below generally cannot exceed the benchmark's weighting of securities rated CCC or below plus 5 percent. The table on the next page provides S&P credit quality ratings for PERA's fixed income holdings as of December 31, 2012.

## Notes to the Financial Statements

(In Thousands of Dollars)

### Credit Quality Rating Dispersion Schedule

QUALITY RATING S & P	TOTAL	U.S. GOVT MORTGAGE-BACKED SECURITIES (MBS)	U.S. CORPORATE BONDS	IMPLICIT U.S. GOVT AGENCIES	NON-U.S. CORP BONDS	NON-U.S. GOVT/AGENCY BONDS	NON-AGENCY MBS	U.S. MUNICIPAL BONDS	REAL ESTATE DEBT
AAA	\$190,443	\$—	\$19,907	\$—	\$10,505	\$106,763	\$47,449	\$5,819	\$—
AA+	347,051	—	47,662	271,092	—	13,753	5,897	8,647	—
AA	57,730	—	29,640	—	—	5,109	11,034	11,947	—
AA-	96,518	—	23,073	—	31,280	19,634	14,011	8,520	—
A+	133,772	—	39,311	—	24,185	25,204	40,636	4,436	—
A	269,974	—	214,540	4,380	21,574	10,119	14,708	4,653	—
A-	490,340	—	360,278	—	114,946	3,740	1,801	9,575	—
BBB+	277,547	—	232,930	—	38,823	—	5,794	—	—
BBB	590,360	—	309,454	—	119,105	155,947	5,854	—	—
BBB-	273,486	—	166,842	—	73,642	22,817	10,185	—	—
BB+	124,740	—	62,641	—	18,844	41,128	2,127	—	—
BB	128,518	—	71,662	—	22,924	33,932	—	—	—
BB-	111,417	—	99,466	—	5,857	6,094	—	—	—
B+	123,085	—	87,800	—	11,814	23,471	—	—	—
B	112,993	—	96,295	—	9,469	7,229	—	—	—
B-	69,377	—	64,056	—	2,306	3,015	—	—	—
CCC+	27,091	—	24,008	—	1,363	—	1,720	—	—
CCC	9,598	—	9,598	—	—	—	—	—	—
CCC -	1,740	—	1,740	—	—	—	—	—	—
CC	2,019	—	2,019	—	—	—	—	—	—
Not rated <sup>1</sup>	1,501,520	1,308,025	46,259	4,969	12,963	18,288	24,428	21,590	64,998
Subtotal	\$4,939,319	\$1,308,025	\$2,009,181	\$280,441	\$519,600	\$496,243	\$185,644	\$75,187	\$64,998
U.S. Govts	2,844,739								
Explicit									
U.S. Govt —									
Agencies <sup>2</sup>	394,550								
BlackRock									
Aggregate									
Index Pooled									
Investment <sup>3</sup>	1,350,406								
Defined									
Contribution									
Fixed Income									
Funds <sup>1</sup>	918,549								
<b>Total</b>	<b>\$10,447,563</b>								

<sup>1</sup> Not rated by S&P.

<sup>2</sup> Bonds issued by the Government National Mortgage Association (GNMA).

<sup>3</sup> Commingled fund not rated by S&P. The quality ratings of the securities within this commingled account are as follows: AAA or equivalent 73.86 percent, AA 3.59 percent, A 11.54 percent, and BBB 11.01 percent.

### Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. PERA has no overall formal investment policy for interest rate risk. PERA utilizes effective duration as the primary measure of interest rate risk within its fixed income investments. Duration estimates the sensitivity of a bond's price to interest rate changes. Effective duration makes assumptions regarding the most likely timing and amounts of variable cash flows arising from such investments as callable bonds, mortgage-backed securities, and variable-rate debt. PERA manages its exposure to fair value losses arising from changes in interest rates by requiring that the duration of individual portfolios stays within defined bands of the duration of each portfolio's benchmark.

Effective duration for PERA fixed income holdings as of December 31, 2012, is disclosed in the table on the next page.



## Notes to the Financial Statements

(In Thousands of Dollars)

## Interest Rate Risk—Effective Duration

	FAIR VALUE TOTAL	FAIR VALUE DURATION NOT AVAILABLE	FAIR VALUE DURATION AVAILABLE	EFFECTIVE WEIGHTED DURATION
U.S. government mortgage-backed securities	\$1,702,575	\$—	\$1,702,575	2.38
U.S. governments	2,844,739	—	2,844,739	5.37
BlackRock aggregate index pooled investment	1,350,406	—	1,350,406	4.97
U.S. corporate bonds	2,009,181	46,694	1,962,487	6.81
U.S. government agencies	280,441	5,114	275,327	4.08
Non-U.S. corporate bonds	519,600	4,258	515,342	6.43
Non-U.S. government/agency bonds	496,243	6,271	489,972	6.47
Non-agency mortgage-backed securities	185,644	3,891	181,753	3.19
U.S. municipal bonds	75,187	27,817	47,370	14.28
Real estate debt	64,998	64,998	—	—
Total non-defined contribution investment assets <sup>1</sup>	9,529,014	159,043	9,369,971	5.15
Defined contribution plans fixed income <sup>2</sup>	918,549	—	918,549	4.12
<b>Total</b>	<b>\$10,447,563</b>	<b>\$159,043</b>	<b>\$10,288,520</b>	

<sup>1</sup> All of the investment assets other than those held in defined contribution plans are pooled and managed separately.

<sup>2</sup> Defined contribution plans fixed income is the total of fixed income assets for the Voluntary Investment Program, the Defined Contribution Retirement Plan, and the Deferred Compensation Plan.

**Mortgage-Backed Securities**

PERA invests in residential and commercial mortgage-backed securities which are reported at fair value in the Statement of Net Position under Investments at fair value, Fixed income. A residential mortgage-backed security depends on the underlying pool of single-family mortgage loans to provide the cash flow to make principal and interest payments on the security. A decline in interest rates can result in prepayments, which reduces the weighted average life of the security. Alternatively, an increase in interest rates results in decreased prepayments, which may cause the weighted average life of a mortgage investment to be longer than anticipated. A collateralized mortgage obligation (CMO) is a mortgage-backed security that is comprised of classes of bonds created by prioritizing the cash flows of the underlying mortgage pool. This redistributes prepayment risk and/or credit risk among the various bond classes in the CMO structure.

Commercial mortgage-backed securities depend on underlying pools of commercial real estate loans to provide the cash flow to make principal and interest payments on the security. These loans are typically for a fixed term, cannot be repaid early by the borrower without penalty and, accordingly, have lower prepayment risk than residential mortgage-backed securities.

PERA invests in mortgage-backed securities for diversification and to enhance fixed income returns. Mortgage-backed securities are subject to credit risk, the risk that the borrower will be unable to meet its obligations. Residential mortgage-backed securities are also subject to prepayment risk, which is the risk that a payment will be made in excess of the regularly scheduled principal payment. Prepayment risk is comprised of two risks: call risk, the risk that prepayments will increase when interest rates have declined, and extension risk, the risk that prepayments will decrease when interest rates have increased.

As of December 31, 2012, the fair value of residential and commercial mortgage-backed securities was \$1,702,575 and \$180,034, respectively. This does not include the fair value of mortgage-backed securities held in commingled funds.

**Foreign Currency Risk**

Foreign currency risk is the risk that changes in exchange rates will adversely impact the fair value of an investment or a deposit. PERA's currency risk exposures reside primarily within international and global equity portfolios. In addition, there is currency risk exposure in the Opportunity Fund asset class and in Alternative and Real Estate investments that are non-U.S. dollar denominated. PERA's formal policy regarding foreign currency risk is to evaluate the risk as part of the fund's periodic asset and liability study and to consider it in determining the total fund asset allocation. At December 31, 2012, PERA did not have a currency hedging program at the total fund level. However, at the manager level, hedging currency risk is allowed and certain managers actively manage currency exposure. PERA monitors currency risk at the total fund level, portfolio level, and asset class level.

PERA's exposure to foreign currency risk in U.S. dollars as of December 31, 2012, is disclosed in the table on the next page.

## Notes to the Financial Statements

(In Thousands of Dollars)

### Foreign Currency Risk

CURRENCY	TOTAL	GLOBAL STOCKS	ALTERNATIVE INVESTMENTS	REAL ESTATE EQUITY	INCOME RECEIVABLE	CASH AND SHORT-TERM INVESTMENTS	CORPORATE BONDS	PENDING TRADES	PENDING FOREIGN EXCHANGE TRADES
Euro	\$2,199,108	\$2,006,252	\$175,958	\$18,667	\$5,645	\$3,906	\$—	\$1,308	(\$12,628)
British pound sterling	1,668,693	1,597,862	66,114	—	4,682	663	—	(788)	160
Japanese yen	1,343,382	1,353,688	—	—	3,032	9	—	(2,437)	(10,910)
Swiss franc	636,843	632,186	—	—	4,657	—	—	—	—
Canadian dollar	589,129	586,833	3	—	1,664	2,565	—	97	(2,033)
Hong Kong dollar	510,662	503,547	—	—	79	7,136	—	197	(297)
Australian dollar	436,197	464,955	—	—	456	955	—	—	(30,169)
South Korean won	367,255	367,255	—	—	—	—	—	—	—
Swedish krona	229,268	229,063	—	—	—	205	—	—	—
Singapore dollar	154,052	153,451	—	—	420	181	—	—	—
New Taiwan dollar	147,697	139,868	—	—	—	7,630	—	199	—
Thai baht	117,664	117,577	—	—	—	87	—	—	—
South African rand	113,548	112,808	—	—	203	(906)	—	1,122	321
Indian rupee	111,077	110,845	—	—	—	861	—	(629)	—
Brazilian real	100,861	100,172	—	—	258	202	229	—	—
Norwegian krone	96,005	95,710	—	—	115	180	—	—	—
Mexican peso	69,594	49,194	—	20,207	—	193	—	—	—
Indonesian rupiah	68,696	68,638	—	—	58	—	—	—	—
Danish krone	68,480	68,421	—	—	59	—	—	—	—
Turkish lira	66,226	65,976	—	—	—	250	—	—	—
New Israeli shekel	26,200	25,906	—	—	—	294	—	—	—
Malaysian ringgit	17,898	17,887	—	—	—	11	—	—	—
Chilean peso	17,611	17,591	—	—	—	20	—	—	—
Polish zloty	17,238	17,108	—	—	—	130	—	—	—
Czech koruna	13,097	12,877	—	—	—	220	—	—	—
Colombian peso	7,720	7,720	—	—	—	—	—	—	—
New Zealand dollar	4,677	4,677	—	—	—	—	—	—	—
Philippine peso	4,285	4,285	—	—	—	—	—	—	—
<b>Total</b>	<b>\$9,203,163</b>	<b>\$8,932,352</b>	<b>\$242,075</b>	<b>\$38,874</b>	<b>\$21,328</b>	<b>\$24,792</b>	<b>\$229</b>	<b>(\$931)</b>	<b>(\$55,556)</b>

### Note 6—Derivative Instruments

PERA reports all derivative instruments at fair value. These derivative instruments involve, to varying degrees, elements of market risk to the extent of future market movements in excess of amounts recognized in the Statement of Net Position. For accounting purposes, all derivative instruments are considered to be investments and not hedges.

The following table summarizes the derivative instruments outstanding as of December 31, 2012. These instruments are recorded in cash and short-term investments, investment receivables, and investments at fair value in the Statement of Net Position and the changes in fair value are included in investment income in the Statement of Changes in Net Position. Investments in limited partnerships and commingled funds include derivative instruments that are not reported in the following disclosure.

## Notes to the Financial Statements

(In Thousands of Dollars)

## Fair Values and Notional Amounts of Derivative Instruments—Defined Benefit Plan

INVESTMENT DERIVATIVES	CHANGES IN FAIR VALUE		FAIR VALUE AT DECEMBER 31, 2012		
	CLASSIFICATION	AMOUNT	CLASSIFICATION	AMOUNT	NOTIONAL
Foreign Currency Forwards	Investment income	(\$13,360)	Cash and short-term	(\$371)	\$—
Rights/Warrants	Investment income	3,965	Global stocks	191	—
Futures	Investment income	(2,140)	Opportunity fund	—	21,298
			Investment receivables	35	—
Options	Investment income	29	Opportunity fund	—	—
Commodity Index Swaps	Investment income	(1,015)	Opportunity fund	(2,323)	727
Variance Swaps	Investment income	102	Opportunity fund	154	5,160
<b>Total</b>		<b>(\$12,419)</b>	<b>Total</b>	<b>(\$2,314)</b>	<b>\$27,185</b>

## Fair Values and Notional Amounts of Derivative Instruments—Defined Contribution Plan (Separately Managed Accounts)

INVESTMENT DERIVATIVES	CHANGES IN FAIR VALUE		FAIR VALUE AT DECEMBER 31, 2012		
	CLASSIFICATION	AMOUNT	CLASSIFICATION	AMOUNT	NOTIONAL
Foreign Currency Forwards	Investment income	(\$21)	Cash and short-term	(\$4)	\$—
Rights/Warrants	Investment income	40	Global stocks	—	—
<b>Total</b>		<b>\$19</b>	<b>Total</b>	<b>(\$4)</b>	<b>\$—</b>

**Foreign Currency Forward Contracts**

A foreign currency forward is a contractual agreement between two parties to pay or receive specific amounts of foreign currency at a future date in exchange for another currency at an agreed upon exchange rate. The settlement date for these contracts is three business days or more after the trade date. Forward commitments are not standardized and carry credit risk due to the possible nonperformance by one of the counterparties. The maximum potential loss is the aggregate face value in U.S. dollars at the time the contract was opened; however, the likelihood of such loss is remote. No losses related to counterparty default occurred in 2012. Foreign currency forward contracts are usually traded over-the-counter. These transactions are entered into in order to hedge risks from exposure to foreign currency rate fluctuation and to facilitate trade settlement of foreign security transactions. Forwards carry foreign currency risk resulting from adverse fluctuations in foreign exchange rates. Recognition of realized gain or loss depends on whether the currency exchange rate has moved favorably or unfavorably to the contract holder upon termination of the contract. Prior to termination of the contract, PERA records the unrealized currency translation gain or loss based on the applicable forward currency exchange rates which are determined by an external pricing service.

At December 31, 2012, PERA's defined benefit plans had outstanding foreign currency forward contracts to purchase foreign currencies with a fair value of \$57,406 and outstanding contracts to sell foreign currencies with a fair value of (\$57,777). PERA's defined contribution plans had outstanding foreign currency forward contracts to purchase foreign currencies with a fair value of \$675 and outstanding contracts to sell foreign currencies with a fair value of (\$679).

## Notes to the Financial Statements

(In Thousands of Dollars)

### Foreign Currency Forward Contracts Outstanding—Defined Benefit Plan (As of December 31, 2012)

OBJECTIVE	NOTIONAL AMOUNT BUY (SELL)	EFFECTIVE DATE	MATURITY DATE	TERMS	FAIR VALUE	INDEX COUNTERPARTY	COUNTERPARTY CREDIT RATING <sup>1</sup>
Hedge risk from exposure to rate fluctuations	(29,120) AUD 29,918 USD	10/29/2012	1/31/2013	Exchange U.S. dollars for Australian dollars	(\$251)	The Northern Trust Company	AA- / Aa3 / AA-
Repatriate foreign currency proceeds from sales	(1,631) HKD 210 USD	12/28/2012	1/3/2013	Exchange U.S. dollars for Hong Kong dollars	0	Deutsche Bank AG	A+ / A2 / A+
Facilitate trade settlement	740 ZAR (87) USD	12/28/2012	1/4/2013	Exchange South African rand for U.S. dollars	0	The Northern Trust Company	AA- / Aa3 / AA-
Facilitate trade settlement	1,346 ZAR (159) USD	12/31/2012	1/7/2013	Exchange South African rand for U.S. dollars	0	The Northern Trust Company	AA- / Aa3 / AA-
Facilitate trade settlement	466 ZAR (54) USD	12/24/2012	1/2/2013	Exchange South African rand for U.S. dollars	1	The Northern Trust Company	AA- / Aa3 / AA-
Facilitate trade settlement	174 ZAR (20) USD	12/26/2012	1/2/2013	Exchange South African rand for U.S. dollars	0	The Northern Trust Company	AA- / Aa3 / AA-
Repatriate foreign currency proceeds from sales	(250) EUR 329 USD	12/21/2012	1/2/2013	Exchange U.S. dollars for Euros	0	State Street Bank and Trust Co.	A+ / A1 / A+
Repatriate foreign currency proceeds from sales	(158) EUR 209 USD	12/27/2012	1/3/2013	Exchange U.S. dollars for Euros	1	Bank of New York Mellon	A+ / Aa3 / AA-
Repatriate foreign currency proceeds from sales	(226) HKD 29 USD	12/28/2012	1/3/2013	Exchange U.S. dollars for Hong Kong dollars	0	State Street Bank and Trust Co.	A+ / A1 / A+
Repatriate foreign currency proceeds from sales	(444) HKD 57 USD	12/27/2012	1/2/2013	Exchange U.S. dollars for Hong Kong dollars	0	Credit Suisse AG	A / A2 / A
Repatriate foreign currency proceeds from sales	(45) EUR 59 USD	12/28/2012	1/4/2013	Exchange U.S. dollars for Euros	0	Credit Suisse AG	A / A2 / A
Facilitate trade settlement	120,798 JPY (1,406) USD	12/27/2012	1/7/2013	Exchange Japanese yen for U.S. dollars	(9)	Bank of New York Mellon	A+ / Aa3 / AA-
Facilitate trade settlement	31,431 JPY (365) USD	12/28/2012	1/8/2013	Exchange Japanese yen for U.S. dollars	(2)	State Street Bank and Trust Co.	A+ / A1 / A+
Hedge risk from exposure to rate fluctuations	(1,152,941) JPY 13,790 USD	12/17/2012	4/15/2013	Exchange U.S. dollars for Japanese yen	445	The Northern Trust Company	AA- / Aa3 / AA-
Hedge risk from exposure to rate fluctuations	(8,553) EUR 10,723 USD	7/5/2012	1/15/2013	Exchange U.S. dollars for Euros	(556)	The Northern Trust Company	AA- / Aa3 / AA-
<b>Total</b>					<u>(\$371)</u>		

<sup>1</sup> Ratings are listed in order of S&P, Moody's, and Fitch. If the counterparty legal entity does not have a public rating, the parent company rating is disclosed.

## Notes to the Financial Statements

(In Thousands of Dollars)

Foreign Currency Forward Contracts Outstanding—Defined Contribution Plan (Separately Managed Accounts)  
(As of December 31, 2012)

OBJECTIVE	NOTIONAL AMOUNT BUY (SELL)	EFFECTIVE DATE	MATURITY DATE	TERMS	FAIR VALUE	INDEX COUNTERPARTY	COUNTERPARTY CREDIT RATING <sup>1</sup>
Facilitate trade settlement	8,017 JPY (93) USD	12/28/2012	1/8/2013	Exchange Japanese yen for U.S. dollars	(\$0.5)	Bank of America NA	A / A3 / A
Facilitate trade settlement	5,380 JPY (63) USD	12/28/2012	1/8/2013	Exchange Japanese yen for U.S. dollars	(0.5)	Bank of America NA	A / A3 / A
Facilitate trade settlement	7,278 JPY (85) USD	12/28/2012	1/8/2013	Exchange Japanese yen for U.S. dollars	(0.5)	Bank of America NA	A / A3 / A
Facilitate trade settlement	7,057 JPY (82) USD	12/28/2012	1/8/2013	Exchange Japanese yen for U.S. dollars	(0.5)	Bank of America NA	A / A3 / A
Facilitate trade settlement	17,543 JPY (204) USD	12/28/2012	1/8/2013	Exchange Japanese yen for U.S. dollars	(1.0)	Bank of America NA	A / A3 / A
Facilitate trade settlement	7,236 JPY (84) USD	12/28/2012	1/8/2013	Exchange Japanese yen for U.S. dollars	(0.5)	Bank of America NA	A / A3 / A
Facilitate trade settlement	5,868 JPY (68) USD	12/28/2012	1/8/2013	Exchange Japanese yen for U.S. dollars	(0.5)	Bank of America NA	A / A3 / A
<b>Total</b>					<u>(\$4.0)</u>		

<sup>1</sup> Ratings are listed in order of S&P, Moody's, and Fitch. If the counterparty legal entity does not have a public rating, the parent company rating is disclosed.

**Rights/Warrants**

Rights provide the holder with the right, but not the obligation, to buy a company's common stock at a predetermined price, the subscription price. A right permits the investor to buy at a price that may be below the actual market price for that stock. A warrant is an option to buy an underlying equity security at a predetermined price for a finite period of time. For both rights and warrants, if the predetermined price is less than the actual market price for the equity security, the rights and warrants have intrinsic value. Both rights and warrants potentially have intrinsic value until their expiration date.

Investment in rights/warrants exposes PERA to limited market risk. In the event the subscription or predetermined price falls below the market price of the company's common stock the amount of loss realized is equal to the cost to acquire the investment. PERA records rights/warrants with global stocks in the Statement of Net Position. As December 31, 2012, PERA's defined benefit plan had outstanding rights/warrants with a total fair value of \$191 and a total cost of \$0.

Rights/Warrants Outstanding—Defined Benefit Plan  
(As of December 31, 2012)

SECURITY TYPE	EXPIRATION DATE	FAIR VALUE
Right	1/21/2013	\$—
Right	1/10/2013	180
Right	1/4/2013	11
Warrant	1/19/2021	—
<b>Total</b>		<u>\$191</u>

**Futures**

Futures represent commitments to purchase or sell securities or commodities at a future date for a specified price. Futures contracts trade on organized exchanges. Upon entering into a futures contract, PERA is required to pledge an amount of cash or securities (known as an initial margin deposit) equal to a percentage of the contract amount. Recognition of investment income, with a corresponding change to the amount of investment receivables, occurs on a daily basis according to the fluctuation of value of the futures contract. Typically, payments are received or made on a daily basis to settle the day's fluctuation of value; although there are a limited number of contracts where settlement doesn't occur until after actual expiration of the contract due to exchange rules. This reporting methodology results in all futures being recorded on the Statement of Net Position with a fair value of zero since the value of all contracts at a given point in time is reflected within the balance of investment receivables.

## Notes to the Financial Statements

(In Thousands of Dollars)

Investment in futures contracts exposes PERA to market risk and credit risk. In an event where market conditions change and no action is taken, the maximum amount of loss which could occur is equal to the notional value of the contract. The possibility of such a loss is remote. Credit risk is minimized by initial margin deposits and daily settlement payments. At December 31, 2012, PERA's defined benefit plan had outstanding futures contracts with a total notional value of \$21,298 and total investment receivables value of \$35.

### Futures Contracts Outstanding—Defined Benefit Plan (As of December 31, 2012)

CONTRACTS	MATURITY DATE	NOTIONAL AMOUNT
Commodity Futures	11/21/2013	\$1,401
Commodity Futures	11/15/2013	943
Commodity Futures	4/27/2013	1,465
Commodity Futures	3/27/2013	2,557
Commodity Futures	3/27/2013	605
Commodity Futures	3/19/2013	324
Commodity Futures	3/19/2013	409
Commodity Futures	3/19/2013	676
Commodity Futures	3/15/2013	626
Commodity Futures	3/15/2013	1,362
Commodity Futures	3/15/2013	1,621
Commodity Futures	3/15/2013	1,167
Commodity Futures	3/7/2013	301
Commodity Futures	3/1/2013	634
Commodity Futures	3/1/2013	794
Commodity Futures	3/1/2013	590
Commodity Futures	3/1/2013	812
Commodity Futures	2/27/2013	2,011
Commodity Futures	2/27/2013	1,851
Commodity Futures	2/21/2013	738
Commodity Futures	2/15/2013	411
<b>Total</b>		<b>\$21,298</b>

### Swaps

Swaps represent an agreement between counterparties to exchange cash flows by reference to specified indexes on a notional principal amount for a specified period. Swaps trade in the over-the-counter market. For index or total return swaps, the total return of a given index is exchanged for the return of another index. PERA's commodity index swaps primarily include the receipt of the total return from the Dow Jones-UBS Commodities Index in exchange for the sum of the interest rate on a designated Treasury Bill plus an agreed upon number of basis points. If over a one-month period the performance of the index exceeds the return of the reference Treasury Bill rate (adjusted by the mutually agreed upon basis points), PERA receives a payment for the net difference between these amounts. If the index's return is lower than the return of the reference Treasury Bill rate (adjusted by the mutually agreed upon basis points), then PERA pays the net difference between these amounts. Commodity swaps carry interest rate risk resulting from fluctuations in the underlying interest rates which may affect the fair value of the contracts. Variance swaps are a specialized version of total return swaps. These swaps are designed to exchange cash flows based on the variance in the price movements of a reference asset or index. PERA's variance swaps pay a return when the degree of price fluctuations in specified commodities fluctuate less than the degree of price fluctuations implied by the option prices in these markets. PERA invests in commodity and variance swaps to gain exposure to commodities without having to purchase and hold the actual commodities.

PERA is exposed to credit risk in the event of nonperformance by the counterparty to the financial instrument. Credit risk is reduced by evaluating the credit quality and operational capabilities of the counterparties. Minimum ratings requirements and exposure limits on approved counterparties and requirements to post collateral serve as additional measures to reduce counterparty risk.

PERA records collateral held as a liability and recognizes a receivable for collateral held by the counterparty. A realized gain or loss is reported on contract settlement. Open contracts are reported at fair value. At December 31, 2012, PERA's defined benefit plan had open swap contracts with a fair value of (\$2,169) and there was net \$2,105 of collateral posted with the counterparties. Fair value is determined by an external pricing source when available. In the absence of an external pricing source, fair value is determined using a proprietary analytics model.

## Notes to the Financial Statements

(In Thousands of Dollars)

Swap Contracts Outstanding—Defined Benefit Plan  
(As of December 31, 2012)

CONTRACTS	MATURITY DATE	NOTIONAL AMOUNT	FAIR VALUE	INDEX COUNTERPARTY	COUNTERPARTY CREDIT RATING <sup>1</sup>
Commodity Index Swap	12/31/2019	\$60	(\$88)	Deutsche Bank AG	A+ / A2 / A+
Commodity Index Swap	2/15/2013	52	(276)	JP Morgan Chase Bank N.A.	A+ / Aa3 / A+
Commodity Index Swap	2/15/2013	44	16	JP Morgan Chase Bank N.A.	A+ / Aa3 / A+
Commodity Index Swap	2/15/2013	176	(543)	Citibank NA	A / A3 / A
Commodity Index Swap	2/15/2013	95	(267)	JP Morgan Chase Bank N.A.	A+ / Aa3 / A+
Commodity Index Swap	2/15/2013	11	(33)	JP Morgan Chase Bank N.A.	A+ / Aa3 / A+
Commodity Index Swap	2/15/2013	99	(369)	Goldman Sachs Bank USA	A / A2 / A
Commodity Index Swap	2/15/2013	32	(90)	Goldman Sachs Bank USA	A / A2 / A
Commodity Index Swap	2/15/2013	68	(180)	Deutsche Bank AG	A+ / A2 / A+
Commodity Index Swap	2/15/2013	90	(493)	Bank of America NA	A / A3 / A
Variance Swap	9/30/2014	380	5	JP Morgan Chase Bank N.A.	A+ / Aa3 / A+
Variance Swap	5/31/2013	270	12	Goldman Sachs International	A / Not Rated / Not Rated
Variance Swap	5/28/2013	170	6	Deutsche Bank AG	A+ / A2 / A+
Variance Swap	5/24/2013	430	16	Goldman Sachs International	A / Not Rated / Not Rated
Variance Swap	4/4/2013	200	2	Goldman Sachs International	A / Not Rated / Not Rated
Variance Swap	3/12/2013	390	12	Barclays Bank PLC	A+ / A2 / A
Variance Swap	2/28/2013	700	21	Goldman Sachs International	A / Not Rated / Not Rated
Variance Swap	2/26/2013	420	12	Goldman Sachs International	A / Not Rated / Not Rated
Variance Swap	2/20/2013	1,140	35	JP Morgan Chase Bank N.A.	A+ / Aa3 / A+
Variance Swap	2/20/2013	800	25	JP Morgan Chase Bank N.A.	A+ / Aa3 / A+
Variance Swap	2/20/2013	260	8	JP Morgan Chase Bank N.A.	A+ / Aa3 / A+
<b>Total</b>		<b>\$5,887</b>	<b>(\$2,169)</b>		

<sup>1</sup> Ratings are listed in order of S&P, Moody's, and Fitch. If the counterparty legal entity is not a publicly traded company, the parent company rating is disclosed.

**Note 7—Commitments and Contingencies**

As of December 31, 2012, PERA had commitments for the future purchase of investments in Alternative Investments of \$1,494,860, Real Estate of \$535,500, and the Opportunity Fund of \$83,723.

**Lawsuit Regarding Senate Bill 10-001**

On February 26, 2010, a civil action was commenced in the Denver District Court, Justus, *et al.* v. State of Colorado *et al.*, Case No. 2010 CV 1589, wherein the plaintiffs, who claim to be acting on behalf of a class of individuals, allege that a portion of SB 10-001 is unconstitutional. SB 10-001 was passed by the General Assembly on February 17, 2010, and signed into law by former Governor Ritter on February 23, 2010. The provision that is the subject matter of the civil action is that portion of SB 10-001 that modifies the annual increase payable to existing PERA retirees and the annual increase that will be payable in the future to PERA members who were eligible to draw retirement benefits as of the effective date of the bill. Also named in the litigation are the State of Colorado, Governor Hickenlooper, Carole Wright, and Maryann Motza. The individuals are named exclusively in their official capacity. On June 29, 2011, the Denver District Court ruled in favor of PERA and the State of Colorado and determined that the Plaintiffs do not have a contractual right to a specific annual increase formula for life without change. On July 25, 2011, the Plaintiffs appealed the District Court's decision and in October 2012, the Court of Appeals remanded the case to the District Court for further review with instructions as to the applicable law.

The Court of Appeals held that when benefits are reduced, the proper legal test is set forth in the case of *In re Estate of DeWitt*, 54 P.3d 849 (Colo. 2002). In *DeWitt*, the Colorado Supreme Court followed United States Supreme Court precedent holding that there is a three-pronged test to determine whether there is a violation of the Contract Clause. The first step in assessing an alleged Contract Clause violation is to determine whether there is a contractual relationship where a vested right is established. Second, if there is a vested contractual right, the court must determine whether a change in the law impairs that contractual relationship and whether the impairment is substantial. Under *DeWitt*, the inquiry continues if a change in the law results in substantial impairment to a vested contract right. The third prong of the analysis is whether the reduction in the benefit was reasonable and necessary. In other words, even if SB 10-001 substantially impaired a contract right, it is constitutional if the Legislature's modification of the cost-of-living adjustment was reasonable and necessary to address the legitimate public purpose of ensuring the long-term sustainability of PERA.

The District Court's decision rejected the Plaintiffs claims based upon failure to establish a contractual relationship. The Court of Appeals reversed that determination and remanded with directions to analyze prongs two and three. On November 21, 2012, PERA and the State of Colorado filed an appeal with the Colorado Supreme Court.

## Notes to the Financial Statements

(In Thousands of Dollars)

Plaintiffs filed their appeal on November 20, 2012, with the Colorado Supreme Court objecting to the legal standard adopted by the Court of Appeals. The Colorado Supreme Court has not yet announced whether or not this case will be heard.

The maximum potential damages arising from this Civil Action consist of the payment of additional statutory benefits beyond those provided for by the provisions of SB 10-001. In the event the pertinent portion of SB 10-001 was held to be unconstitutional by an unappealable final court order, PERA would be required to pay the annual increase in effect prior to the passage of SB 10-001. The nature of the relief sought is a mandatory injunction requiring the payment of annual increases going forward based on the PERA statutes as they existed prior to passage and enactment of SB 10-001. PERA is unable to estimate the possible loss or range of loss at this stage in this matter, should the Plaintiff succeed on appeal. The entry of such a mandatory injunction would have material actuarial impact on the funded status of the Plan which will negatively affect the long-term sustainability of the Plan. The assessment of management is that the likelihood of success on the merits of this appeal is not probable.

### ***Lawsuit Regarding Short-Term Disability Program***

On March 7, 2011, a civil action was commenced in Denver District Court, Tracey Lawless v. Standard Insurance Company *et al.*, Case No. 2010CV9848, wherein the Plaintiff, who claims to be acting on behalf of a class of individuals, alleges that PERA has adopted the wrong disability standard under the short-term disability program. The primary claim is that PERA Rule 7.45E, which sets forth the medical standard for short-term disability, conflicts with the medical standard set forth in the PERA statutes. The named defendants in the action are: The Standard Insurance Company, PERA, PERA's Board of Trustees, Carole Wright, Maryann Motza, and Rick Larson. The individuals were named in their official capacity only. On January 4, 2012, the Denver District Court ruled in favor of PERA and determined that Rule 7.45E is not in conflict with the medical standard set forth in the PERA statutes. On March 22, 2012, the Plaintiff filed her Notice of Appeal, and the Court of Appeals heard this matter on January 29, 2013. The Court of Appeals has not yet rendered its decision.

The assessment of management is that the likelihood of success by the Plaintiff on the merits is not probable. PERA is unable to estimate the possible loss or range of loss at this stage in this matter, should the Plaintiff succeed on appeal. PERA Rule 7.45E has been in effect in the same form since January 1, 1999, the effective date of PERA's current disability program. This rule has been uniformly applied since that time and thousands of disability applications have been processed in accordance with the disability standards provided in Rule 7.45E. If the Plaintiff is successful, there would be an additional liability to PERA related to additional benefits that would be paid beyond what has been paid to date.

### ***Lawsuit Regarding Memorial Health System***

Effective October 1, 2012, Memorial Health System (Memorial) terminated its affiliation with PERA. Memorial's termination arises from the 30-year lease of Memorial to University of Colorado Health (UCH) and its related entities. In exchange for the lease, the City of Colorado Springs (the City) received \$259 million, of which \$185 million is contractually specified as having been paid to the City to discharge the PERA liability associated with Memorial's termination of affiliation. As of October 1, 2012, employees of Memorial no longer were eligible to participate in PERA since they were no longer employed with a PERA-affiliated employer.

On September 6, 2012, the City, UCH, and PERA entered into an agreement whereby the parties agreed that the \$259 million would be placed in a court-supervised escrow account pending resolution of the litigation between the City, Memorial, and PERA. As part of the September 6, 2012, agreement, the parties agreed that the City would file a Complaint in the City and County of Denver. The City filed its Complaint on September 13, 2012, and PERA filed its Answer and Counterclaims on September 26, 2012.

PERA's position is that the termination of affiliation provisions of the PERA statutes, specifically C.R.S. §§ 24-51-313-321 apply to the Memorial transaction. PERA's position is that Memorial must pay its share of the current unfunded liability in PERA's Local Government Division and PERA's Health Care Trust Fund because it has terminated its affiliation with PERA.

The City and Memorial's position is that the termination of affiliation provisions of the PERA statutes do not apply to this transaction and PERA is not owed anything as a result of the Memorial transaction.

PERA estimates that Memorial's share of the unfunded liability, with interest, in the Local Government Division Trust Fund and the Health Care Trust Fund is between \$200 and \$250 million. If the City pays the amount determined to be owed by PERA's actuaries, the reserves will be adequate to maintain current benefits payable to benefit recipients and to preserve the vested rights of inactive members. In this case, Memorial's termination of affiliation will not have an adverse financial impact on the actuarial soundness of the Local Government Division Trust Fund. If Memorial is allowed to withdraw from the fund without paying its share of the unfunded liability, all other Local Government Division employers will absorb Memorial's share of the unfunded liability. The assessment of management is that the likelihood of success by the City and Memorial on the merits is not probable.

On May 17, 2013, PERA filed a motion asking the Court to determine that the existing disaffiliation statutes apply and that the City is obligated to cover the costs of retirement benefits already earned by former Memorial members and retirees.

### ***Other Pending or Threatened Litigation***

PERA is involved in various lawsuits or threatened legal proceedings arising in the normal course of business. In the opinion of management, the ultimate resolution of these other matters will not have a material effect on the financial condition of PERA.



## Notes to the Financial Statements

(In Thousands of Dollars)

### Note 8—Voluntary Investment Program, Defined Contribution Retirement Plan, and Deferred Compensation Plan

PERA administers the Voluntary Investment Program, the Defined Contribution Retirement Plan, and the Deferred Compensation Plan (collectively, Plans). The Voluntary Investment Program (PERAPlus 401(k) Plan) and Defined Contribution Retirement Plan (DC Plan) are both defined contribution plans. The Deferred Compensation Retirement Plan (PERAPlus 457 Plan) is a deferred compensation plan. The Board has the authority to establish and amend the Plans pursuant to C.R.S. § 24-51-1401, C.R.S. § 24-51-1501, and C.R.S. § 24-51-1601, respectively. The complete provisions of the PERAPlus 401(k) Plan and the DC Plan are incorporated into the *Colorado PERA 401(k) and Defined Contribution Plan and Trust Document*. The complete provisions of the PERAPlus 457 Plan are incorporated into *The PERA Deferred Compensation Plan Document*.

#### All Plans

The following investment, distribution, and fee provisions are the same under all three Plans.

- Participants have the choice of contributing to 18 different investment funds. In addition, participants may also make transfers, at any time, among the following listed investment funds:
 

<ul style="list-style-type: none"> <li>▪ PERAdvantage Capital Preservation Fund</li> <li>▪ PERAdvantage Fixed Income Fund</li> <li>▪ PERAdvantage Real Return Fund</li> <li>▪ PERAdvantage U.S. Large Cap Fund</li> <li>▪ PERAdvantage International Stock Fund</li> <li>▪ PERAdvantage U.S. Small and Mid-Cap Stock Fund</li> <li>▪ PERAdvantage SRI Fund</li> <li>▪ PERAdvantage Income Fund</li> <li>▪ PERAdvantage 2015 Fund</li> </ul>	<ul style="list-style-type: none"> <li>▪ PERAdvantage 2020 Fund</li> <li>▪ PERAdvantage 2025 Fund</li> <li>▪ PERAdvantage 2030 Fund</li> <li>▪ PERAdvantage 2035 Fund</li> <li>▪ PERAdvantage 2040 Fund</li> <li>▪ PERAdvantage 2045 Fund</li> <li>▪ PERAdvantage 2050 Fund</li> <li>▪ PERAdvantage 2055 Fund</li> <li>▪ TD Ameritrade Self-Directed Brokerage Account</li> </ul>
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- The participant's entire account balance becomes available for distribution upon termination from all PERA-affiliated and/or 457-affiliated employers. All distributions are in accordance with the Plan document and Internal Revenue Code requirements.
- ING administers the recordkeeping for all participant transactions. The custodian is Northern Trust for all PERAdvantage investments except for the Great-West Stable Value Fund, an investment within the PERAdvantage Capital Preservation Fund, and the TD Ameritrade Self-Directed Brokerage Account. Northern Trust, as custodial agent of the investments, carries no custodial credit risk as all deposits are insured and/or collateralized by the securities held by Northern Trust in the Plan name.
- TD Ameritrade, Inc. provides brokerage services for the Self-Directed Brokerage Account. The TD Ameritrade Self-Directed Brokerage Account, which consists of common stock, corporate bonds, and mutual funds, is presented at fair value.
- The Great-West Stable Value Fund is offered through a group fixed and variable deferred annuity contract issued by Great-West Life & Annuity Insurance Company. As of December 31, 2012, the Stable Value Fund is reported at contract value of \$386,815. Market value as of December 31, 2012, is \$394,942.
- Cash balances represent both operating cash accounts and investment cash on deposit held by the custodians.
- Plan administration expenses are paid through a monthly administrative fee charged to participant accounts and an asset-based fee paid directly from each PERAdvantage fund and/or self-directed brokerage account. In addition, the underlying investment portfolio managers within each PERAdvantage fund charge an investment management fee, which is paid directly from investment earnings.

#### PERAPlus 401(k) Plan

The PERAPlus 401(k) Plan was established January 1, 1985, and is an Internal Revenue Code § 401(k) plan that allows for voluntary participation to provide additional benefits at retirement for PERA members. All employees working for a PERA-affiliated employer may contribute to the PERAPlus 401(k) Plan. In 2012, participants could contribute the lesser of \$17,000 (actual dollars) or 100 percent of compensation less PERA contributions and employer contributions. Catch-up contributions up to \$5,500 (actual dollars) in 2012 were allowed for participants who had attained age 50 before the close of the plan year, subject to the limitations of IRC § 414(v). Employer matching and discretionary contributions are allowable with total participant and employer contributions limited to \$50,000 (actual dollars) per participant in 2012.

Provisions of the PERAPlus 401(k) Plan permit in-service withdrawals by participants while employed with a PERA-affiliated employer through loans, hardship withdrawals, or by a trustee-to-trustee transfer to the PERA defined benefit plan to purchase service credit. The balance of outstanding loans as of December 31, 2012, is \$62,080 and is recorded as a benefit receivable on the Statement of Net Position. As of December 31, 2012, there were 69,559 participants with balances. Of the participants with balances, 26,406 made contributions within the last three months

## Notes to the Financial Statements

(In Thousands of Dollars)

of the year, including 828 retirees. There were 12,074 terminated participants and 15,737 non-contributing retirees with balances. During 2012, the PERAPlus 401(k) Plan had a total of 3,129 terminated participants take full distributions of their accounts.

### **DC Plan**

The DC Plan was established January 1, 2006, and is an Internal Revenue Code § 401(a) governmental profit-sharing plan. Its purpose is to offer a defined contribution alternative to the PERA defined benefit plan. Participation is available to eligible new State employees hired on or after January 1, 2006, and certain community college employees hired on or after January 1, 2008. The eligible employees have the option to choose the PERA defined benefit plan or the DC Plan.

During the second to fifth year of participation in the DC Plan, eligible participants may elect to terminate membership in the DC Plan and become a member of the PERA defined benefit plan. Similarly, an eligible employee of the PERA defined benefit plan may elect, during the second to fifth year of membership, to terminate membership in the PERA defined benefit plan and become a participant of the DC Plan. Either election is irrevocable.

SB 11-076 required participants in the DC Plan to contribute 10.50 percent and employers to contribute 7.65 percent of includable salary for the period from July 1, 2011, through June 30, 2012. (For State Troopers, the rates were 12.50 percent and 10.35 percent, respectively.) As of July 1, 2012, the participant's rate reverted back to 8.00 percent and the employer's rate went to 10.15 percent. (For State Troopers, the rates reverted back to 10.00 percent and 12.85 percent, respectively.) In addition, employers contribute the 3.00 percent AED and 2.50 percent SAED to the State Division Trust Fund (see Note 4). DC Plan participants immediately vest in 50 percent of their employer contributions, together with accumulated investment earnings on the vested portion. For each full year of participation, vesting increases by 10 percent. Contribution requirements are established under C.R.S. § 24-51-1505.

Provisions of the DC Plan prohibit in-service withdrawals, although the election to purchase service is available to those who have made the one-time irrevocable election to transfer to the PERA defined benefit plan. As of December 31, 2012, the DC Plan had 4,362 participants with balances. Of the participants with balances, 2,099 made contributions within the last three months of the year, including 11 retirees. There were 1,921 terminated participants and 24 non-contributing retirees with balances. During the year, 456 participants took full distributions of their accounts.

### **PERAPlus 457 Plan**

On July 1, 2009, PERA assumed the administrative and fiduciary responsibilities for the State of Colorado Deferred Compensation Plan previously administered under C.R.S. Part 1 of Article 52 of Title 24, as said part existed prior to its repeal in 2009.

The PERAPlus 457 Plan is an Internal Revenue Code § 457 plan that allows for voluntary participation to provide additional benefits at retirement. All employees working for a PERA employer affiliated with the 457 Plan may contribute to the PERAPlus 457 Plan. All employers that were affiliated with the State 457 Plan prior to July 1, 2009, including those that are not PERA-affiliated employers, remained affiliated with the PERAPlus 457 Plan and their employees remained eligible to contribute. In 2012, participants could defer the lesser of \$17,000 (actual dollars) or 100 percent of compensation less PERA and employer contributions. Catch-up deferrals, up to the greater of \$5,500 (actual dollars) for participants who had attained age 50 before the close of the plan year or the limits of the special section 457 Plan catch-up, were allowed in 2012 subject to the limitations of IRC § 414(v) and § 457(b).

Provisions of the PERAPlus 457 Plan permit in-service withdrawals by participants while employed with a PERAPlus 457 Plan-affiliated employer through loans, unforeseen emergency withdrawals, de minimis distributions, or by a trustee-to-trustee transfer to the PERA defined benefit plan to purchase service. The balance of outstanding loans as of December 31, 2012, is \$9,888 and is recorded as a benefit receivable on the Statement of Net Position. As of December 31, 2012, there were 17,469 participants with balances. Of the participants with balances, 9,469 made contributions within the last three months of the year, including 124 retirees. There were 2,381 terminated participants and 2,419 non-contributing retirees with balances. During the year, the PERAPlus 457 Plan had a total of 755 terminated participants take full distributions of their accounts.

### **Note 9—Health Care Trust Funds—Colorado PERA's Cost-Sharing Multiple-Employer Defined Benefit Health Care Plans**

PERA offers two cost-sharing multiple-employer defined benefit other postemployment benefit health care plans to benefit recipients and retirees. The HCTF and the DPS HCTF are voluntary plans which offer benefits under C.R.S. § 24-51-1201 (1) and (2), respectively. These plans provide a health care premium subsidy to participating PERA benefit recipients and retirees who choose to enroll in one of the PERA health care plans, however, the subsidy is not available if only enrolled in the dental and/or vision plan(s). The health care premium subsidy is based upon the benefit structure under which the member retires and the member's years of service credit. For members who retire and have service credit with employers in the DPS Division and one or more of the other four Divisions, the premium subsidy is allocated between the two funds. The amount of the premium subsidy funded by each fund is based on the percentage of the member contribution account balance from each Division as it relates to the total member contribution account balance from which the benefit is paid.

## Notes to the Financial Statements

(In Thousands of Dollars)

### **PERA Board Authority**

The Board has the authority to contract, self-insure, and to authorize disbursements necessary in order to carry out the purposes of the PERACare program including the administration of the health care subsidies. PERA contracts with a national insurance carrier to administer claims for the self-insured plans, with a national prescription benefit manager to administer a pharmacy benefit for the self-insured plans, and with health insurance companies to provide fully insured health care plans providing services within Colorado.

### **Plan Description and Benefit Provisions**

C.R.S. § 24-51-1202 *et seq.* specifies the eligibility for enrollment in the health care plans offered by PERA and the amount of the premium subsidy. The law governing a benefit recipient's eligibility for the subsidy and the amount of the subsidy differs slightly depending under which benefit structure the benefits are calculated. All benefit recipients under the PERA benefit structure and all retirees under the DPS benefit structure are eligible for a premium subsidy, if enrolled in a health care plan under PERACare. Upon the death of a DPS benefit structure retiree, no further subsidy is paid.

### **Membership**

Enrollment in the PERACare health care program is voluntary and available to the following eligible individuals:

- Benefit recipients and their dependents.
- Guardians of children receiving PERA survivor benefits if the children are enrolled in the health care program.
- Surviving spouses of deceased retirees who are not receiving PERA benefits, but were enrolled in the program when death occurred.
- Divorced spouses of retirees who are not receiving PERA benefits, but were enrolled in the program when the divorce occurred.
- Members while receiving short-term disability program payments.
- Members whose employers have elected to provide coverage through the health care program and such members' dependents.

### **Available Health Care Premium Subsidy**

The maximum monthly subsidy amount, \$230 (actual dollars) or \$115 (actual dollars), is based on 20 years or more of service credit. The maximum monthly subsidy of \$230 (actual dollars) applies to eligible participants who are under 65 years of age and not entitled to Medicare. The maximum monthly subsidy of \$115 (actual dollars) applies to eligible participants who are 65 years of age or older and those who are under 65 years of age and entitled to Medicare. For those with less service credit, the subsidy is reduced by 5 percent for each year less than 20 years. The plan participant is responsible for paying the remaining portion of the premium to the extent the subsidy does not cover the entire amount.

Under the PERA benefit structure, an additional subsidy exists for benefit recipients who have not participated in Social Security and are not otherwise eligible for premium-free Medicare Part A for hospital-related services. C.R.S. § 24-51-1206(4) states that PERA cannot charge premiums to benefit recipients without Part A that are greater than premiums charged to benefit recipients with Part A for the same plan option, coverage level, and service credit. Therefore, the total premium for Medicare coverage for each plan participant is determined assuming he or she has both Medicare Parts A and B and an additional subsidy is paid by the HCTF and the DPS HCTF on behalf of the individual not covered by Medicare Part A.

Under the DPS benefit structure, the HCTF and the DPS HCTF pay a monthly subsidy for retirees who are not eligible for premium-free Medicare Part A. The maximum monthly subsidy is \$230 (actual dollars) per retiree, reduced for service less than 20 years. Retirees who do not have Medicare Part A pay the difference between the total premium for Medicare coverage and the monthly subsidy.

### **Impact of the Retiree Drug Subsidy and the Early Retiree Reinsurance Program**

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 established prescription drug coverage for Medicare beneficiaries under Medicare Part D. One of the provisions of Medicare Part D provides sponsors of postemployment health care plans the opportunity to receive a payment, referred to as a retiree drug subsidy (RDS), if the sponsor's plan provides a prescription drug benefit that is actuarially equivalent to the Medicare Part D benefit. The RDS is equal to 28 percent of the amount of eligible prescription drug benefit costs of retirees who are eligible for, but not enrolled in, Medicare Part D, by virtue of continuing to be covered by the sponsor's plan. The provisions of Medicare Part D became effective on January 1, 2006. The funds receive the Medicare RDS payment for the self-insured plans administered by Anthem Blue Cross and Blue Shield (Anthem) and the insured plan offered by Rocky Mountain Health Plans. The funds use the anticipated RDS payments to reduce the required premiums collected from the enrollees. Each fund pays for the full premiums or claims during the year and recoups the additional cost when the fund receives the RDS payment from the federal government. For the year ended December 31, 2012, the HCTF and the DPS HCTF received \$14,198 and \$488 in Medicare RDS income, respectively.

The Patient Protection and Affordable Care Act (PPACA) of 2010 established the Early Retiree Reinsurance Program (ERRP) for plans offering health care coverage to early retirees (those aged 55 through 64). This program provides sponsors of postemployment health care plans for early retirees the opportunity to receive a payment for amounts paid to treat certain chronic and high-cost conditions. The payment is equal to 80 percent of the paid claims between \$15,000 and \$90,000 (actual dollars) per eligible covered individual per year. The funds receive the ERRP payment for the self-insured pre-Medicare plans administered by Anthem and the insured pre-Medicare plans offered by Kaiser Permanente. The funds must

## Notes to the Financial Statements

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use all ERRP payments (1) to offset increases in health benefit premiums and health benefit costs, or (2) to offset increases in the participants' premium contributions, copayments, deductible, coinsurance, or other out-of-pocket costs, or (3) a combination thereof. ERRP payments remain in the funds and share in fund earnings and losses until they are used. As of December 31, 2012, the funds had used the ERRP payments in compliance with regulatory guidance. For the year ended December 31, 2012, the HCTF and the DPS HCTF did not earn ERRP income.

### Contributions

Contribution requirements are established by statute under C.R.S. § 24-51-208. Colorado State law provisions may be amended from time to time by the Colorado General Assembly. Affiliated employers must submit contributions for all PERA members equal to 1.02 percent of covered salaries.

### Plan Data

As of December 31, 2012, there were a total of 196,435 PERA members in active service who were earning a potential future subsidy benefit if they retire from PERA and enroll in a health care plan through PERACare. This total represents 13,911 active members in the DPS Division and 182,524 active members in the other four divisions. There were 20,698 inactive members who had accumulated a potential subsidy benefit, but were not yet receiving benefits. This total includes 645 in the DPS Division and 20,053 in the other four divisions.

### Participation in the Health Care Plans for Retirees and Survivors Currently Receiving Benefits

	HEALTH CARE TRUST FUND	DENVER PUBLIC SCHOOLS HEALTH CARE TRUST FUND	TOTAL
<b>Enrolled in PERACare</b>			
Under age 65	15,988	739	16,727
Age 65 and older	35,678	3,222	38,900
	51,666	3,961	55,627
<b>Not enrolled in PERACare</b>			
Under age 65	16,639	595	17,234
Age 65 and older	25,994	1,859	27,853
	42,633	2,454	45,087
<b>Total retirees and survivors currently receiving benefits</b>	<b>94,299</b>	<b>6,415</b>	<b>100,714</b>

PERA offers the following two general types of health plans: fully insured plans that are offered through health care organizations and self-insured plans administered by third party vendors. The plan designs offered include HMO, PPO, Medicare Supplement, Medicare Advantage, and Medicare Cost plans. PERA also offers fully insured dental and vision plans.

### Summary of HCTF Specific Significant Accounting Policies

Following the applicable recognition requirements of GASB Statement 33, the funds recognize an asset and contribution for the RDS payment. The funds apply the measurement requirements of GASB Statement 43 to determine the actuarial accrued liabilities, the ARC of the employer, and the annual OPEB cost without reduction for RDS payments.

Premiums collected and payments made are handled in two ways, depending on whether or not the plan bears any level of risk with regard to the health coverage. Where the plan bears risk, all premiums collected are recorded as contributions and all claims or premiums paid are accounted for as benefit payments. Where there is no transfer of risk to the plan, the premiums collected are held by the plan as a liability and the liability is relieved when the premiums are transferred to the health insurance company that provides the fully insured health plan. When there is no health coverage risk, the only benefit payment recorded is the subsidy benefit which is equal to the difference between the premiums collected from the enrollees and the full premium due to the insurance company.

The first health plan that involves risk to the funds is the self-insured plan administered by Anthem. PERA uses an outside consultant to determine the premiums required to cover anticipated health claims less the anticipated Medicare Part D retiree drug subsidy. The cost to the enrollee is further reduced by the amount of the enrollee's calculated subsidy, if applicable. Implicit in this process is the risk that actual claims experience and the Medicare RDS could be different from the estimates resulting in either a gain or a loss to the funds.

The second health plan that involves risk to the funds is Rocky Mountain Health Plans' (RMHP) Medicare plan where the funds directly receive the Medicare RDS payment from the federal government. Using an outside consultant, PERA estimates in advance the amount of the Medicare RDS payment that the funds will receive based on an estimate of the amount of claims that will be paid by RMHP. The anticipated savings is passed on to the enrollees through a premium reduction. The funds pay RMHP the full premium payment, which includes the amounts collected from enrollees, the funds' subsidies, as well as an additional amount for the anticipated Medicare RDS payment which reduced the enrollees' premiums. The inherent risk is that the actual Medicare RDS could be different from the estimate resulting in either a gain or a loss to the funds.

## Notes to the Financial Statements

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**PERA-Affiliated Employer Program Participation**

In addition, fully insured pre-Medicare health plans offered through Anthem and Kaiser Permanente are available to any PERA-affiliated employer who voluntarily elects to provide health care coverage through the health care plan for its employees who are PERA members. The program acts as a purchaser of private insurance to obtain economies of scale for the employers that elect to join in the joint purchasing arrangement. The insurance companies, who provide coverage through the program, set the rates for each employer group. There is no transfer of risk to the funds, PERA, or between the participating employers. The insurance companies providing the benefits bear the risk for the plan. The employers and/or participants pay the full premiums for the coverage and the funds provide no subsidy. PERA collects the premiums, deposits them into the funds, and then pays these premiums to the insurance companies who provide the coverage. As of December 31, 2012, there were 19 employers in the program with 373 active members enrolled. As of December 31, 2012, none of the employers in the program are in the DPS Division.

**Dental and Vision Plans**

Dental and vision plans are also available to benefit recipients and eligible employees of employers who have elected to provide health care coverage through PERA. These plans are all fully insured and the funds provide no subsidy; the risk is borne by the insurance companies contracted to provide the coverage. The participants and/or employers pay the full premiums for the coverage. PERA collects the premiums, deposits them into the funds, and then pays these premiums to the insurance companies who provide the coverage. As of December 31, 2012, there were 45,700 participants enrolled in the dental plans and 35,401 participants enrolled in the vision plans in both the HCTF and the DPS HCTF.

**Note 10—Funded Status and Actuarial Information****Funded Status and Funding Progress**

The funded status of each plan as of December 31, 2012, the most recent actuarial valuation date, is as follows:

	STATE DIVISION	SCHOOL DIVISION	LOCAL GOVERNMENT DIVISION	JUDICIAL DIVISION	DENVER PUBLIC SCHOOLS DIVISION
Actuarial value of assets (a)	\$12,538,675	\$20,266,574	\$3,098,721	\$238,807	\$2,936,695
Actuarial accrued liability (b)	21,191,495	32,619,033	4,157,621	326,897	3,495,549
Total unfunded actuarial accrued liability (UAAL) (b-a)	8,652,820	12,352,459	1,058,900	88,090	558,854
Funded ratio (a/b)	59.2%	62.1%	74.5%	73.1%	84.0%
Covered payroll	2,384,934	3,819,066	523,668	39,045	510,872
UAAL as a percentage of covered payroll	362.8%	323.4%	202.2%	225.6%	109.4%
	HEALTH CARE TRUST FUND	DENVER PUBLIC SCHOOLS HEALTH CARE TRUST FUND			
Actuarial value of assets (a)	\$285,097	\$14,443			
Actuarial accrued liability (b)	1,723,495	77,669			
Total unfunded actuarial accrued liability (UAAL) (b-a)	1,438,398	63,226			
Funded ratio (a/b)	16.5%	18.6%			
Covered payroll	6,766,713	510,872			
UAAL as a percentage of covered payroll	21.3%	12.4%			

**Actuarial Methods and Assumptions**

Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future. Actuarially determined amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future. A schedule of funding progress immediately follows the notes to the financial statements. It presents multi-year trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liability for benefits. Calculations are based on the benefits provided under the terms of the substantive plan in effect at the time of each valuation and on the pattern of sharing of costs between each fund and plan members to that point. The projection of benefits for financial reporting purposes does not explicitly incorporate the potential effects of legal or contractual funding limitations. Actuarial calculations reflect a long-term perspective. In addition, consistent with that perspective, the actuarial methods and assumptions used include techniques designed to reduce short-term volatility in actuarial accrued liabilities and the actuarial value of assets.

## Notes to the Financial Statements

(In Thousands of Dollars)

The actuarial accrued liability is based on a variety of assumptions, with the most significant assumption being the assumed rate of return on investments and related discount rate. As of December 31, 2012, PERA has estimated the rate of return on investments and discount rate will be 8 percent for a period equal to the remaining lives of current active members and benefit recipients. Note 11 presents a summary of the impact of different assumed investment rates of return. As shown, if there is a significant deviation, over a long period, in the actual rate of return from the assumed rate of return, the measurement of the UAAL could be materially under- or over-reported as of December 31, 2012. Further, funding the actuarial accrued liability assumes the current statutory contributions by employers and members in the future will be made on a timely basis. Any significant reduction in contributions would have an impact on the ability of the plan to make benefit payments in the future.

	STATE DIVISION	SCHOOL DIVISION	LOCAL GOVERNMENT DIVISION	JUDICIAL DIVISION	DENVER PUBLIC SCHOOLS DIVISION
Valuation date	12/31/2012	12/31/2012	12/31/2012	12/31/2012	12/31/2012
Actuarial cost method	Entry age	Entry age	Entry age	Entry age	Entry age
Amortization method	Level percent Open	Level percent Open	Level percent Open	Level percent Open	Level percent Open
Remaining amortization period used in ARC calculation	30 years	30 years	30 years	30 years	30 years
Remaining amortization period with current funding	53 years	49 years	27 years	Infinite	Infinite
Asset valuation method	4-year smoothed market	4-year smoothed market	4-year smoothed market	4-year smoothed market	4-year smoothed market
Actuarial assumptions:					
Investment rate of return and discount rate <sup>1</sup>	8.00%	8.00%	8.00%	8.00%	8.00%
Projected salary increases <sup>1</sup>	4.25%–9.92%	4.25%–10.45%	4.25%–11.20%	4.75%–5.75%	4.25%–10.45%
Post-retirement benefit increases: Members hired prior to 1/1/07	2.00% compounded annually	2.00% compounded annually	2.00% compounded annually	2.00% compounded annually	2.00% compounded annually
Members hired between 1/1/07 and 1/1/10	None <sup>2</sup>	None <sup>2</sup>	None <sup>2</sup>	None <sup>2</sup>	2.00% compounded annually
Members hired on or after 1/1/10	None <sup>2</sup>	None <sup>2</sup>	None <sup>2</sup>	None <sup>2</sup>	None <sup>2</sup>

<sup>1</sup> Includes inflation at 3.50 percent and productivity at 0.75 percent.

<sup>2</sup> Post-retirement benefit increases are provided by the AIR, a separate reserve within the fund, subject to monies being available.

**Notes to the Financial Statements***(In Thousands of Dollars)*

Beginning in 2007, the AIR was created within each Division Trust Fund for the purpose of funding future benefit increases for members in the PERA benefit structure hired on or after January 1, 2007. Funding for this reserve comes from the employer contributions and is calculated at 1.0 percent of the salary reported for members in the PERA benefit structure hired on or after January 1, 2007. Post-retirement benefit increases for these members are limited to a maximum of 2.0 percent compounded annually subject to the availability of assets in the AIR for each division. As of December 31, 2012, the value of the AIR was \$30,893 in the State Division, \$39,678 in the School Division, \$11,235 in the Local Government Division, \$340 in the Judicial Division, and \$3,861 in the DPS Division. Since these assets are earmarked for the specific purpose of providing future benefit increases for members hired after January 1, 2007, they are not included in the Actuarial Value of Assets used in the calculation of the ARC or the funded status and funding progress of the plans shown above.

	<b>HEALTH CARE TRUST FUND</b>	<b>DENVER PUBLIC SCHOOLS HEALTH CARE TRUST FUND</b>
Valuation date	12/31/2012	12/31/2012
Actuarial cost method	Entry age, Level Dollar	Entry age, Level Dollar
Amortization method	Level percent Open	Level percent Open
Remaining amortization period used in ARC calculation	30 years	30 years
Remaining amortization period with current funding	66 years	21 years
Asset valuation method	4-year smoothed market	4-year smoothed market
Actuarial assumptions:		
Investment rate of return and discount rate <sup>1</sup>	8.00%	8.00%
Projected salary increases <sup>1</sup>	4.25% in aggregate	4.25% in aggregate
Health Care Inflation Factor		
Service-Based Premium Subsidy	0.00%	0.00%
Medicare Part A Premiums	1.25% Initial 3.75% Ultimate	N/A
Carrier Premiums	5.41%—6.36% Initial 5.00% Ultimate	N/A
Retiree Drug Subsidy Payments	4.00% Initial 5.00% Ultimate	4.00% Initial 5.00% Ultimate

<sup>1</sup> Includes inflation at 3.50 percent and productivity at 0.75 percent.

## Notes to the Financial Statements

(In Thousands of Dollars)

### Note 11—Sensitivity of Actuarial Valuation to Changes in Assumed Investment Rate of Return and Discount Rate

The most important long-run driver of a pension plan is investment income. The investment rate of return and discount rate assumptions, as required by GASB, should be based on an estimated long-term investment yield for the plan, with consideration given to the nature and mix of current and expected plan investments and the basis used to determine the actuarial value of assets.

Management and the Board continually monitor the investment rate of return assumption and the Board formally reviews the assumption on an annual basis and makes changes in this assumption as appropriate. The Board last changed the assumption in September 2009, reducing the assumption from 8.5 percent to 8.0 percent. In November 2012, the Board moved to retain the 8.0 percent investment assumption rate.

To illustrate the importance of the investment rate of return, which is used to discount the actuarial liabilities of PERA, the funded ratio, UAAL, and ARC (for contributions for fiscal year ended December 31, 2012) are shown below at 6.5 percent (a one and one-half percent decrease), 7.5 percent (a one-half percent decrease), 8.0 percent (the current assumption), 8.5 percent (a one-half percent increase), and 9.5 percent (a one and one-half percent increase).

	1.5% DECREASE 6.5 PERCENT	.5% DECREASE 7.5 PERCENT	CURRENT ASSUMPTION 8.0 PERCENT	.5% INCREASE 8.5 PERCENT	1.5% INCREASE 9.5 PERCENT
<b>FUNDED RATIO</b>					
State Division Trust Fund	49.8%	56.0%	59.2%	62.4%	69.2%
School Division Trust Fund	52.0%	58.7%	62.1%	65.7%	73.0%
Local Government Division Trust Fund	61.9%	70.2%	74.5%	78.9%	88.1%
Judicial Division Trust Fund	52.2%	69.3%	73.1%	76.8%	84.7%
Denver Public Schools Division Trust Fund	71.0%	79.6%	84.0%	88.5%	97.7%
Health Care Trust Fund	14.3%	15.8%	16.5%	17.3%	18.9%
Denver Public Schools Health Care Trust Fund	16.3%	17.8%	18.6%	19.4%	21.0%
<b>UNFUNDED ACTUARIAL ACCRUED LIABILITY</b>					
State Division Trust Fund	\$12,513,540	\$9,829,622	\$8,652,820	\$7,569,705	\$5,649,681
School Division Trust Fund	18,527,272	14,229,965	12,352,459	10,627,021	7,578,786
Local Government Division Trust Fund	1,885,810	1,309,592	1,058,900	829,155	424,509
Judicial Division Trust Fund	143,381	105,183	88,090	72,189	43,529
Denver Public Schools Division Trust Fund	1,185,271	749,579	558,854	381,786	68,304
Health Care Trust Fund	1,712,263	1,522,148	1,438,398	1,361,160	1,223,684
Denver Public Schools Health Care Trust Fund	74,426	66,664	63,226	60,045	54,355
<b>ANNUAL REQUIRED CONTRIBUTION</b>					
State Division Trust Fund	28.20%	22.90%	20.45%	18.09%	13.57%
School Division Trust Fund	28.43%	22.40%	19.65%	17.00%	12.01%
Local Government Division Trust Fund	20.47%	14.55%	11.78%	9.07%	3.84%
Judicial Division Trust Fund	29.83%	23.19%	20.07%	17.06%	11.25%
Denver Public Schools Division Trust Fund	18.35%	12.37%	9.67%	6.96%	1.90%
Health Care Trust Fund	1.40%	1.34%	1.32%	1.29%	1.27%
Denver Public Schools Health Care Trust Fund	0.96%	0.90%	0.87%	0.85%	0.82%



## Required Supplementary Information (Unaudited) — Schedule of Funding Progress

*For the Years Ended December 31  
(In Thousands of Dollars)*

State Division						
	2012	2011	2010	2009	2008	2007
Actuarial valuation date	12/31/2012	12/31/2011	12/31/2010	12/31/2009	12/31/2008	12/31/2007
Actuarial value of assets (a)	\$12,538,675	\$12,010,045	\$12,791,946	\$13,382,736	\$13,914,371	\$14,220,681
Actuarial accrued liability (b)	21,191,495	20,826,543	20,356,176	19,977,217	20,498,668	19,390,296
Total unfunded actuarial						
accrued liability (UAAL) (b-a)	8,652,820	8,816,498	7,564,230	6,594,481	6,584,297	5,169,615
Funded ratio (a/b)	59.2%	57.7%	62.8%	67.0%	67.9%	73.3%
Covered payroll	2,384,934	2,393,791	2,392,080	2,384,137	2,371,639	2,236,518
UAAL as a percentage of covered payroll	362.8%	368.3%	316.2%	276.6%	277.6%	231.1%
School Division						
	2012	2011	2010	2009	2008	2007
Actuarial valuation date	12/31/2012	12/31/2011	12/31/2010	12/31/2009	12/31/2008	12/31/2007
Actuarial value of assets (a)	\$20,266,574	\$19,266,110	\$20,321,736	\$21,054,910	\$21,733,329	\$22,070,769
Actuarial accrued liability (b)	32,619,033	31,986,199	31,339,754	30,412,815	31,000,202	29,241,428
Total unfunded actuarial						
accrued liability (UAAL) (b-a)	12,352,459	12,720,089	11,018,018	9,357,905	9,266,873	7,170,659
Funded ratio (a/b)	62.1%	60.2%	64.8%	69.2%	70.1%	75.5%
Covered payroll	3,819,066	3,821,603	3,900,662	3,922,175	3,804,927	3,618,258
UAAL as a percentage of covered payroll	323.4%	332.8%	282.5%	238.6%	243.5%	198.2%
Local Government Division						
	2012	2011	2010	2009	2008	2007
Actuarial valuation date	12/31/2012	12/31/2011	12/31/2010	12/31/2009	12/31/2008	12/31/2007
Actuarial value of assets (a)	\$3,098,721	\$2,882,691	\$2,926,045	\$2,932,628	\$2,933,296	\$2,892,847
Actuarial accrued liability (b)	4,157,621	4,160,015	4,005,566	3,850,821	3,838,083	3,563,199
Total unfunded actuarial						
accrued liability (UAAL) (b-a)	1,058,900	1,277,324	1,079,521	918,193	904,787	670,352
Funded ratio (a/b)	74.5%	69.3%	73.0%	76.2%	76.4%	81.2%
Covered payroll	523,668	718,169	705,265	705,097	718,902	680,442
UAAL as a percentage of covered payroll	202.2%	177.9%	153.1%	130.2%	125.9%	98.5%
Judicial Division						
	2012	2011	2010	2009	2008	2007
Actuarial valuation date	12/31/2012	12/31/2011	12/31/2010	12/31/2009	12/31/2008	12/31/2007
Actuarial value of assets (a)	\$238,807	\$221,515	\$227,814	\$228,714	\$230,967	\$231,228
Actuarial accrued liability (b)	326,897	319,437	303,839	295,696	288,058	264,210
Total unfunded actuarial						
accrued liability (UAAL) (b-a)	88,090	97,922	76,025	66,982	57,091	32,982
Funded ratio (a/b)	73.1%	69.3%	75.0%	77.3%	80.2%	87.5%
Covered payroll	39,045	39,033	37,412	37,583	35,937	31,150
UAAL as a percentage of covered payroll	225.6%	250.9%	203.2%	178.2%	158.9%	105.9%

The accompanying notes are an integral part of the Required Supplementary Information.

## Required Supplementary Information (Unaudited) – Schedule of Funding Progress

For the Years Ended December 31

(In Thousands of Dollars)

### Denver Public Schools Division<sup>1</sup>

	2012	2011	2010
Actuarial valuation date	12/31/2012	12/31/2011	12/31/2010
Actuarial value of assets (a)	\$2,936,695	\$2,804,706	\$2,961,720
Actuarial accrued liability (b)	3,495,549	3,442,527	3,332,814
Total unfunded actuarial			
accrued liability (UAAL) (b-a)	558,854	637,821	371,094
Funded ratio (a/b)	84.0%	81.5%	88.9%
Covered payroll	510,872	491,646	470,774
UAAL as a percentage of			
covered payroll	109.4%	129.7%	78.8%

<sup>1</sup> The DPS Division Trust Fund was established on January 1, 2010, and received the net assets of DPSRS.

### Health Care Trust Fund

	2012	2011	2010	2009	2008	2007
Actuarial valuation date	12/31/2012	12/31/2011	12/31/2010	12/31/2009	12/31/2008	12/31/2007
Actuarial value of assets (a)	\$285,097	\$282,228	\$288,193	\$260,341	\$255,976	\$258,775
Actuarial accrued liability (b)	1,723,495	1,710,790	1,642,993	1,763,241	1,368,633	1,303,594
Total unfunded actuarial						
accrued liability (UAAL) (b-a)	1,438,398	1,428,562	1,354,800	1,502,900	1,112,657	1,044,819
Funded ratio (a/b)	16.5%	16.5%	17.5%	14.8%	18.7%	19.9%
Covered payroll	6,766,713	6,972,596	7,035,419	7,048,992	6,931,405	6,566,368
UAAL as a percentage of						
covered payroll	21.3%	20.5%	19.3%	21.3%	16.1%	15.9%

### Denver Public Schools Health Care Trust Fund<sup>1</sup>

	2012	2011	2010
Actuarial valuation date	12/31/2012	12/31/2011	12/31/2010
Actuarial value of assets (a)	\$14,443	\$14,448	\$14,086
Actuarial accrued liability (b)	77,669	77,475	78,513
Total unfunded actuarial			
accrued liability (UAAL) (b-a)	63,226	63,027	64,427
Funded ratio (a/b)	18.6%	18.6%	17.9%
Covered payroll	510,872	491,646	470,774
UAAL as a percentage of			
covered payroll	12.4%	12.8%	13.7%

<sup>1</sup> The DPS HCTF was established on January 1, 2010, and received the balance of the Denver Public Schools Retiree Health Benefit Trust.

The accompanying notes are an integral part of the Required Supplementary Information.

**Required Supplementary Information (Unaudited)—Schedule of Employer Contributions**For the Years Ended December 31  
(In Thousands of Dollars)

State Division	2012	2011	2010	2009 <sup>2</sup>	2008 <sup>2</sup>	2007 <sup>2</sup>
Dollar amount of annual required contribution (ARC)	\$393,991	\$326,274	\$452,821	\$426,999	\$437,537	\$385,352
ARC <sup>1</sup>	16.52% <sup>3</sup>	13.63% <sup>3</sup>	18.93% <sup>3</sup>	17.91%	18.45%	17.23%
% ARC contributed	83%	85% <sup>4</sup>	62%	69%	61%	60%

<sup>1</sup> As a percent of covered payroll. ARC based on the annual actuarial valuation two years prior to the current year.<sup>2</sup> Information restated in 2010 to reflect a 12-month delay from the actuarial valuation date to the beginning of the calendar year in which each annual required contribution rate became effective.<sup>3</sup> The State Division ARC for 2012, 2011, and 2010 reflects the contribution rate swap of 2.50 percent of payroll, decreasing the employer contribution rate by that amount and increasing the employee rate by a like amount for the period July 1, 2010, through June 30, 2012.<sup>4</sup> Increase in percentage contributed from 2010 is primarily a result of the changes contained in SB 10-001.

School Division	2012	2011	2010	2009 <sup>2</sup>	2008 <sup>2</sup>	2007 <sup>2</sup>
Dollar amount of annual required contribution (ARC)	\$672,156	\$601,138	\$731,374	\$649,512	\$653,686	\$581,092
ARC <sup>1</sup>	17.60%	15.73%	18.75%	16.56%	17.18%	16.06%
% ARC contributed	84%	89% <sup>3</sup>	70%	73%	65%	64%

<sup>1</sup> As a percent of covered payroll. ARC based on the annual actuarial valuation two years prior to the current year.<sup>2</sup> Information restated in 2010 to reflect a 12-month delay from the actuarial valuation date to the beginning of the calendar year in which each annual required contribution rate became effective.<sup>3</sup> Increase in percentage contributed from 2010 is primarily a result of the changes contained in SB 10-001.

Local Government Division	2012	2011	2010	2009 <sup>2</sup>	2008 <sup>2</sup>	2007 <sup>2</sup>
Dollar amount of annual required contribution (ARC)	\$51,267	\$64,492	\$86,818	\$78,548	\$85,909	\$76,278
ARC <sup>1</sup>	9.79%	8.98%	12.31%	11.14%	11.95%	11.21%
% ARC contributed	163%	139% <sup>3</sup>	101%	106%	91%	89%

<sup>1</sup> As a percent of covered payroll. ARC based on the annual actuarial valuation two years prior to the current year.<sup>2</sup> Information restated in 2010 to reflect a 12-month delay from the actuarial valuation date to the beginning of the calendar year in which each annual required contribution rate became effective.<sup>3</sup> Increase in percentage contributed from 2010 is primarily a result of the changes contained in SB 10-001.

Judicial Division	2012	2011	2010	2009 <sup>3</sup>	2008 <sup>3</sup>	2007 <sup>3</sup>
Dollar amount of annual required contribution (ARC)	\$7,137	\$6,362	\$6,970	\$6,419	\$6,346	\$4,775
ARC <sup>1</sup>	18.28% <sup>2</sup>	16.30% <sup>2</sup>	18.63% <sup>2</sup>	17.08%	17.66%	15.33%
% ARC contributed	82%	84% <sup>4</sup>	80%	90%	80%	88%

<sup>1</sup> As a percent of covered payroll. ARC based on the annual actuarial valuation two years prior to the current year.<sup>2</sup> The Judicial Division ARC for 2012, 2011, and 2010 reflects the contribution rate swap of 2.50 percent of payroll, decreasing the employer contribution rate and increasing the employee rate by a like amount for the period July 1, 2010, through June 30, 2012.<sup>3</sup> Information restated in 2010 to reflect a 12-month delay from the actuarial valuation date to the beginning of the calendar year in which each annual required contribution rate became effective.<sup>4</sup> Increase in percentage contributed from 2010 is primarily a result of the changes contained in SB 10-001.

Denver Public Schools Division <sup>1</sup>	2012	2011	2010
Dollar amount of annual required contribution (ARC)	\$49,044	\$58,620	\$68,780
ARC <sup>2</sup>	9.60%	11.85%	14.61%
% ARC contributed	27%	20% <sup>3</sup>	8%

<sup>1</sup> The DPS Division Trust Fund was established on January 1, 2010, and received the net assets of DPSRS.<sup>2</sup> As a percent of covered payroll. ARC based on the annual actuarial valuation two years prior to the current year.<sup>3</sup> Increase in percentage contributed from 2010 is primarily a result of the changes contained in SB 10-001.

## Required Supplementary Information (Unaudited) – Schedule of Contributions from Employers and Other Contributing Entities

For the Years Ended December 31  
(In Thousands of Dollars)

Health Care Trust Fund	2012	2011	2010	2009 <sup>2</sup>	2008 <sup>2</sup>	2007 <sup>2</sup>
Dollar amount of annual required contribution (ARC)	\$79,847	\$89,249	\$78,797	\$78,949	\$76,939	\$78,140
ARC <sup>1</sup>	1.18%	1.28%	1.12%	1.12%	1.11%	1.19%
% ARC contributed by Employer	91%	82%	94%	94%	94%	88%
% ARC contributed by Medicare	18%	16%	18%	17%	18%	16%

<sup>1</sup> As a percent of covered payroll. ARC based on the annual actuarial valuation two years prior to the current year.

<sup>2</sup> Information restated in 2010 to reflect a 12-month delay from the actuarial valuation date to the beginning of the calendar year in which each annual required contribution rate became effective.

### Denver Public Schools Health Care Trust Fund<sup>1</sup>

	2012	2011	2010
Dollar amount of annual required contribution (ARC)	\$4,700	\$4,523	\$4,465
ARC <sup>2</sup>	0.92%	0.92%	0.92%
% ARC contributed by Employer	112%	111%	107%
% ARC contributed by Medicare	10%	11%	12%

<sup>1</sup> The DPS HCTF was established on January 1, 2010, and received the balance of the Denver Public Schools Retiree Health Benefit Trust.

<sup>2</sup> As a percent of covered payroll. ARC based on the annual actuarial valuation two years prior to the current year.

*The accompanying notes are an integral part of the Required Supplementary Information.*

## Notes to the Required Supplementary Information (Unaudited)

### Note 1—Description

The historical trend information about the State Division Trust Fund, School Division Trust Fund, Local Government Division Trust Fund, Judicial Division Trust Fund, Denver Public Schools Division Trust, Health Care Trust Fund, and the Denver Public Schools Health Care Trust Fund is presented as required supplementary information. This information is intended to help users assess the funded status on a going-concern basis and to assess progress made in accumulating assets to pay benefits when due.

### Note 2—Significant Factors Affecting Trends in Actuarial Information

#### *Pension Plans—State, School, Local Government, Judicial, and the Denver Public Schools Division Trust Funds*

##### 2012 Changes in Plan Provisions Since 2011

- The following changes have been made to the actuarial assumptions:
  - The price inflation assumption decreased from 3.75 percent to 3.50 percent.
  - The investment return assumption changed to net of investment expenses only, with administrative expenses recognized by an additional amount added to the normal cost contribution rate. That estimated additional amount is 0.35 percent of payroll for the Division Trust Funds.
  - The wage inflation assumption decreased from 4.50 percent to 4.25 percent.
  - Withdrawal rates from active service for each division were revised to more closely reflect actual experience.
  - The rates of post-retirement deaths for healthy lives changed to the RP-2000 Combined Mortality Table rates projected with Scale AA to 2020 (set back one year for males and two years for females).
  - The rates of pre-retirement mortality (deaths in active service) were revised to match the post-retirement mortality table. However, the percentages of the post-retirement mortality tables reflected on active member lives were changed to 55 percent for males and 40 percent for females.
  - The rates of disability from active service decreased slightly to more closely reflect actual experience.
  - The RP-2000 Disability Mortality Table was retained. The setback applied to the male disability mortality rates remains unchanged at two years, however, the setback applied to the female mortality rates changed from five years to two years. The change was adopted in order to recognize a more appropriate margin for improved female disability mortality.
  - The rates of early, reduced retirement for all divisions decreased and the rates for unreduced retirements increased to more closely reflect actual experience.

##### 2011 Changes in Plan Provisions Since 2010

- No material changes to plan provisions.

##### 2010 Changes in Plan Provisions Since 2009

- The following changes have been made to the actuarial assumptions:
  - The assets, liabilities, and obligations of DPSRS were merged into the new Denver Public Schools Division Trust Fund on January 1, 2010.
  - No material changes to plan provisions.

##### 2009 Changes in Plan Provisions Since 2008

- The following changes have been made to the actuarial assumptions:
  - The investment rate of return has been decreased from 8.50 percent to 8.00 percent per annum.
  - The withdrawal rates, pre-retirement mortality rates, disability rates, and retirement rates for all divisions have been revised to more closely reflect the actual experience of PERA.
  - The post-retirement mortality tables used for service retirements and dependents of deceased pensioners have been changed to the 1994 Group Annuity Mortality Table set back three years for males and set back two years for females.
  - The deferral period for deferred vested members has been revised to more closely reflect the actual experience of PERA.
- The valuation takes into account the effect of amendments to PERA through the valuation date. The following changes were made to the main provisions as part of Senate Bill 10-001 since the previous valuation:
  - For the State Division, the AED will continue to increase by 0.4 percent per year to a total rate of 5.0 percent by 2017. In addition, the SAED will continue to increase by 0.5 percent per year to a total rate of 5.0 percent by 2017. However, if the funded ratio reaches 103 percent, the AED and SAED will be reduced by 0.5 percent of pay each.

## Notes to the Required Supplementary Information (Unaudited)

- For the School Division, the AED will continue to increase by 0.4 percent per year from 2013 through 2015 and by 0.3 percent in 2016 for a total rate of 4.5 percent. In addition, the SAED will continue to increase by 0.5 percent per year to a total rate of 5.5 percent by 2018. Also, the 0.4 percent increase in the statutory employer contribution rate in 2013 was eliminated. However, if the funded ratio reaches 103 percent, the AED and SAED will be reduced by 0.5 percent of pay each.
- For the Local Government Division and the Judicial Division, the AED is frozen at the 2010 level of 2.20 percent. In addition, the SAED is frozen at the 2010 level of 1.50 percent. However, if the funded ratio reaches 103 percent, the AED and SAED will be reduced by 0.5 percent of pay each.
- For Tier 1 and Tier 1A members (including retirees), the Post-Retirement Benefit Increases will be reduced to an amount equal to the CPI-W with a cap of 2 percent for the 2010 increase. In addition, the increase will be delayed 12 months after retirement for those members who retire on or after January 1, 2011. Members not eligible to retire as of January 1, 2011, who retire with a reduced service retirement allowance must reach age 60 or the age and service requirements for unreduced service retirement to be eligible for the Post-Retirement Benefit Increases.
- Changes to the 2 Percent AI Cap: If PERA's overall funded status is at or above 103 percent, the AI cap of 2 percent will increase by 0.25 percent per year. If after PERA's overall funded status reaches 103 percent and it subsequently drops below 90 percent, the AI cap will decrease by 0.25 percent per year but will never drop below 2 percent.
- Effective January 1, 2011, for all active members who are not eligible for retirement on January 1, 2011, the annual salary increase cap in determination of HAS was lowered from 15 percent to 8 percent.
- Effective January 1, 2011, a new requirement is added that members must have five years of earned service credit in order to receive a 50 percent match on a refund. All matching amounts credited to member accounts before January 1, 2011, will remain credited.
- Effective January 1, 2011, the reduction factors for a reduced service retirement benefit for members not eligible to retire as of January 1, 2011, were changed to an actuarial equivalent basis.
- Effective January 1, 2011, implement a modified Rule of 85 for service retirement eligibility for members with less than 5 years of service credit as of January 1, 2011. This rule does not apply to State Troopers.
- Effective January 1, 2011, implement a modified Rule of 88 with a minimum age of 58 for service retirement eligibility for members hired on or after January 1, 2011, but before January 1, 2017. This rule does not apply to State Troopers.
- Effective January 1, 2011, implement a modified Rule of 90 with a minimum age of 60 for service retirement eligibility for members hired on or after January 1, 2017. This rule does not apply to State Troopers and those participants whose last 10 years of service were in the School and DPS Divisions.

### 2008 Changes in Plan Provisions Since 2007

- The following changes have been made to the actuarial assumptions:
  - The interest credit on employee contribution accounts was changed from 5 percent to 3 percent, effective January 1, 2009.

### 2007 Changes in Plan Provisions Since 2006

- No material changes.

### *Health Care Trust Fund and Denver Public Schools Health Care Trust Fund*

#### 2012 Changes in Plan Provisions Since 2011

- The following changes have been made to the actuarial assumptions:
  - The rates of participation in PERACare for current participants of the PERA Divisions and the DPS Division, future participants of the PERA Divisions and the DPS Division, and DPS Division deferred vested members have been revised to more closely reflect actual experience.
  - The percentage of PERACare enrollees who will become age 65 and older and are assumed to not qualify for premium-free Medicare Part A coverage have been revised to more closely reflect actual experience.
  - The average age difference between covered male and female spouses has been updated to reflect actual experience.
  - Initial per capita health care costs for PERACare enrollees under the PERA benefit structure who are age 65 and older and not eligible for premium-free Medicare Part A benefits have been updated to reflect the change in costs for the 2013 plan year.
  - The initial per capita payments estimated to be made by the Centers for Medicare & Medicaid Services (CMS) under the RDS program have been updated based upon the most recent attestation of actuarial equivalence.

## Notes to the Required Supplementary Information (Unaudited)

- The assumed rates of inflation for health care costs for Medicare Part A premiums and RDS payments have been revised to reflect the current expectation of future increases.
- The last year in which the prescription drug benefit provided to those members eligible for Medicare Part D is deemed to be Actuarially Equivalent has been increased to 2023.
- The price inflation assumption decreased from 3.75 percent to 3.50 percent.
- The wage inflation assumption decreased from 4.50 percent to 4.25 percent.
- Withdrawal rates from active service for each division were revised to more closely reflect actual experience.
- The rates of post-retirement deaths for healthy lives changed to the RP-2000 Combined Mortality Table rates projected with Scale AA to 2020 (set back one year for males and two years for females).
- The rates of pre-retirement mortality (deaths in active service) were revised to match the post-retirement mortality table. However, the percentages of the post-retirement mortality tables reflected on active member lives were changed to 55 percent for males and 40 percent for females.
- The rates of disability from active service decreased slightly to more closely reflect actual experience.
- The RP-2000 Disability Mortality Table was retained. The setback applied to the male disability mortality rates remains unchanged at two years, however, the setback applied to the female mortality rates changed from five years to two years. The change was adopted in order to recognize a more appropriate margin for improved female disability mortality.
- The rates of early, reduced retirement for all divisions decreased and the rates for unreduced retirements increased to more closely reflect actual experience.

### 2011 Changes in Plan Provisions Since 2010

- The following changes have been made to the actuarial assumptions:
  - Initial per capita health care costs for PERACare enrollees under the PERA structure who are age 65 and older and not eligible for premium-free Medicare Part A benefits have been updated to reflect the change in costs for the 2012 plan year.
  - The initial per capita payments estimated to be made by CMS under the RDS have been updated based upon the most recent attestation of actuarial equivalence.
  - The assumed rates of inflation for health care costs for Medicare Part A premiums and RDS payments have been revised to reflect the current expectation of future increases.
  - The last year in which the prescription drug benefit provided to those members eligible for Medicare Part D is deemed to be Actuarially Equivalent has been increased to 2019.

### 2010 Changes in Plan Provisions Since 2009

- The following changes have been made to the actuarial assumptions:
  - Denver Public Schools Health Care Trust Fund was created on January 1, 2010, to provide health care subsidies for DPS retirees participating in PERACare.
  - Initial health care costs for PERACare enrollees who are age 65 and older and not eligible for premium-free Medicare Part A have been updated to reflect the change in costs for the 2011 plan year.
  - PERACare funding rates are used to determine the health care costs for participants enrolled in the self-insured plans, who are age 65 and older and not eligible for premium-free Medicare Part A.
  - The starting per capita payments estimated to be made by the CMS under the RDS have been updated based upon the most recent attestation of actuarial equivalence.
  - The assumed rates of inflation for health care costs for Medicare Part A premiums and RDS payments have been revised to reflect the current expectation of future increases.
  - The percentage of PERACare enrollees who are projected to be age 65 and older, and estimated to not be eligible for premium-free Medicare Part A has been revised to reflect plan experience.
  - The last year in which the prescription drug benefit provided to those members eligible for Medicare Part D is deemed to be Actuarially Equivalent has been increased to 2018.
  - Liabilities for those members represented under both the PERA benefit structure and the DPS benefit structure have been allocated based upon member contribution account balances.

## Notes to the Required Supplementary Information (Unaudited)

### 2009 Changes in Plan Provisions Since 2008

- The following changes have been made to the actuarial assumptions:
  - The investment rate of return has been decreased from 8.50 percent to 8.00 percent per annum.
  - The withdrawal rates, pre-retirement mortality rates, disability rates, and retirement rates for all divisions have been revised to more closely reflect the actual experience of PERA.
  - The post-retirement mortality tables used for service retirements and dependents of deceased pensioners have been changed to the 1994 Group Annuity Mortality Table set back three years for males and set back two years for females.
  - The rates of participation in PERACare for current members, future members, deferred vested members, and spouses have been revised to more closely reflect the actual experience of PERA.
  - Initial health care costs for participants who are age 65 and older and not eligible for premium-free Medicare Part A have been updated to reflect their change in costs for the 2010 plan year.
  - The starting per capita payments estimated to be made by CMS under the RDS Program have been updated based upon the most recent attestation of actuarial equivalence.
  - The assumed rates of inflation for health care costs have been revised to reflect the expectation of future increases.
  - The last year in which the prescription drug benefit provided to those members eligible for Medicare Part D is deemed to be actuarially equivalent has been reduced to 2017.

### 2008 Changes in Plan Provisions Since 2007

- The following changes have been made to the actuarial assumptions:
  - Expected costs for retirees who are age 65 and older and not eligible for premium-free Medicare Part A, and who participate in the Kaiser Permanente, Rocky Mountain Health Plans, and Secure Horizons plans have been updated to reflect their change in costs for the 2009 plan year.
  - The starting per capita payments estimated to be made by CMS under the RDS have been updated based upon the most recent attestation of actuarial equivalence.
  - The assumed level of spousal participation was updated to better match plan experience.
  - The year in which the prescription drug benefit provided to those members eligible for Medicare Part D ceases to be actuarially equivalent, by failing the net test component of the Actuarial Equivalency Attestation, was extended to 2018 based upon the most recent attestation of actuarial equivalence.
  - The premium payable to CMS for Medicare Part A coverage was updated to reflect the change in cost for 2009.

### 2007 Changes in Plan Provisions Since 2006

- The following changes have been made to certain health care assumptions since the previous valuation:
  - Future plan election rates for retirees age 65 and older have been adjusted to reflect recent election patterns, incorporating the addition of the Secure Horizons (HMO) option.
  - Expected inpatient hospital claims cost for retirees who are age 65 and older and not eligible for premium-free Medicare Part A have been updated to better reflect anticipated changes in the various coverage categories, based on the most recent “no Medicare Part A” report presented to the Board of Trustees in March 2008.



## Supplementary Schedules—Schedule of Administrative Expenses

For the Years Ended December 31  
(In Thousands of Dollars)

	2012	2011
<b>PERSONNEL SERVICES</b>		
Salaries	\$24,142	\$23,851
Employee benefits	7,134	6,424
<b>Total personnel services</b>	<b>31,276</b>	<b>30,275</b>
<b>PROFESSIONAL CONTRACTS</b>		
Actuarial	517	359
Audits	345	276
Investment services	2,389	2,198
Legal and legislative counsel	2,444	1,054
Computer services and consulting	496	543
Management consulting	1,462	1,280
Health care consulting	216	210
Other	407	496
<b>Total professional contracts</b>	<b>8,276</b>	<b>6,416</b>
<b>MISCELLANEOUS</b>		
Equipment rental and services	1,300	1,237
Memberships	200	214
Publications and subscriptions	66	52
Travel and local expense	641	661
Auto expense	24	22
Telephone	309	296
Postage	927	1,645
Insurance	325	309
Printing	496	525
Office supplies	617	987
Building rent, supplies, and utilities	912	871
<b>Total miscellaneous</b>	<b>5,817</b>	<b>6,819</b>
<b>Total budgeted expense</b>	<b>45,369</b>	<b>43,510</b>
Depreciation expense	682	1,141
Life Insurance Reserve direct expenses	397	411
Health Care Trust Fund direct expenses	11,238	11,010
Denver Public Schools Health Care Trust Fund direct expenses	384	392
Voluntary Investment Program direct expenses	1,572	4,231
Defined Contribution Retirement Plan direct expenses	575	222
Deferred Compensation Plan direct expenses	786	717
<b>Total expense</b>	<b>61,003</b>	<b>61,634</b>
Interfund—tenant and other expense	1,003	1,124
Interfund—internal investment manager expense	(13,986)	(14,231)
<b>Total administrative expense</b>	<b>\$48,020</b>	<b>\$48,527</b>
<b>ALLOCATION OF ADMINISTRATIVE EXPENSE</b>		
State Division Trust Fund	\$8,568	\$8,685
School Division Trust Fund	16,086	16,322
Local Government Division Trust Fund	2,035	2,157
Judicial Division Trust Fund	61	61
Denver Public Schools Division Trust Fund	1,919	1,914
Voluntary Investment Program	2,827	4,717
Defined Contribution Retirement Plan	848	282
Deferred Compensation Plan	1,105	834
Health Care Trust Fund	13,514	12,481
Denver Public Schools Health Care Trust Fund	547	501
Life Insurance Reserve	510	573
<b>Total administrative expense</b>	<b>\$48,020</b>	<b>\$48,527</b>

See accompanying Independent Auditors' Report.

## Supplementary Schedules—Schedule of Investment Expenses

For the Years Ended December 31  
(In Thousands of Dollars)

EXTERNAL MANAGER EXPENSES	2012	2011
Fixed income	\$2,392	\$2,216
Global equity	30,038	23,298
Alternative investments	46,878	47,819
Real estate investments	44,820	45,274
Opportunity fund investments	6,564	5,684
Short-term investments	316	267
<b>Total external manager expenses</b>	<b>131,008</b>	<b>124,558</b>
Internal manager expenses	13,986	14,231
Other investment expenses and custody fees	2,608	3,588
Defined contribution plan investment expenses	3,048	651
<b>Total investment expenses</b>	<b>\$150,650</b>	<b>\$143,028</b>

## Supplementary Schedules—Schedule of Payments to Consultants

For the Years Ended December 31  
(In Thousands of Dollars)

PROFESSIONAL CONTRACTS	2012	2011
Actuarial	\$517	\$359
Audits	345	276
Legal and legislative counsel	2,444	1,054
Computer services and consulting	496	543
Management consulting	1,462	1,280
Health care consulting	216	210
Other	407	496
<b>Total payments to consultants<sup>1</sup></b>	<b>\$5,887</b>	<b>\$4,218</b>

<sup>1</sup> Excludes investment advisors.

See accompanying Independent Auditors' Report.

## Supplementary Schedules—Schedule of Other Additions

For the Years Ended December 31  
(In Thousands of Dollars)

	STATE DIVISION TRUST FUND	SCHOOL DIVISION TRUST FUND	LOCAL GOVERNMENT TRUST FUND	JUDICIAL DIVISION TRUST FUND	DPS DIVISION TRUST FUND	VOLUNTARY INVESTMENT PROGRAM	DEFINED CONTRIBUTION RETIREMENT PLAN	DEFERRED COMPENSATION PLAN	HEALTH CARE TRUST FUND	DPS HEALTH CARE TRUST FUND	LIFE INSURANCE RESERVE	TOTAL	
												2012	2011
Administrative fee income	\$—	\$—	\$—	\$—	\$—	(\$77)	(\$4)	(\$20)	\$2,275	\$163	\$—	\$2,337	\$1,737
Alliance fees	—	—	—	—	—	74	3	25	—	—	—	102	1,644
Participant loan interest	—	—	—	—	—	2,075	—	348	—	—	—	2,423	2,443
Interfund transfers at retirement <sup>1</sup>	—	—	2,526	2,556	137	—	—	—	—	—	—	5,219	—
Purchase service transfer to health care	—	—	—	—	—	—	—	—	9,163	53	—	9,216	9,347
Settlement income	33	53	8	—	8	—	—	—	226	—	—	328	1,003
Miscellaneous	117	193	129	—	1	3	3	1	4	—	—	451	132
<b>Total other additions</b>	<b>\$150</b>	<b>\$246</b>	<b>\$2,663</b>	<b>\$2,556</b>	<b>\$146</b>	<b>\$2,075</b>	<b>\$2</b>	<b>\$354</b>	<b>\$11,668</b>	<b>\$216</b>	<b>\$—</b>	<b>\$20,076</b>	<b>\$16,306</b>

<sup>1</sup> Beginning in 2012, interfund transfers at retirement received are classified as other additions rather than a negative other deduction.

## Supplementary Schedules—Schedule of Other Deductions

For the Years Ended December 31  
(In Thousands of Dollars)

	STATE DIVISION TRUST FUND	SCHOOL DIVISION TRUST FUND	LOCAL GOVERNMENT TRUST FUND	JUDICIAL DIVISION TRUST FUND	DPS DIVISION TRUST FUND	VOLUNTARY INVESTMENT PROGRAM	DEFINED CONTRIBUTION RETIREMENT PLAN	DEFERRED COMPENSATION PLAN	HEALTH CARE TRUST FUND	DPS HEALTH CARE TRUST FUND	LIFE INSURANCE RESERVE	TOTAL	
												2012	2011
Interfund transfers at retirement	\$454	\$4,765	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$5,219	\$—
Purchase service transfer to health care	3,062	4,217	1,863	21	53	—	—	—	—	—	—	9,216	9,347
Miscellaneous	395	175	209	1	2	234	22	278	—	—	—	1,316	268
<b>Total other deductions</b>	<b>\$3,911</b>	<b>\$9,157</b>	<b>\$2,072</b>	<b>\$22</b>	<b>\$55</b>	<b>\$234</b>	<b>\$22</b>	<b>\$278</b>	<b>\$—</b>	<b>\$—</b>	<b>\$—</b>	<b>\$15,751</b>	<b>\$9,615</b>

See accompanying Independent Auditors' Report.



Investment Section



*Leadership • Collaboration • Excellence*



## Colorado PERA Report on Investment Activity

*Does Not Include the Defined Contribution Plans*

### State Law

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

- The aggregate amount of monies invested in corporate stocks or corporate bonds, notes, or debentures, which are convertible into corporate 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.

### *Colorado PERA Board's Statutory Fiduciary Responsibility*

By State law, the management of PERA's retirement fund is vested in the Board who is held to the standard of conduct of fiduciaries in discharging their responsibilities. According to C.R.S. § 24-51-207(2), the Board, as fiduciaries, must carry out their functions solely in the interest of PERA members and benefit recipients and for the exclusive purpose of providing benefits.

### *Goal*

The function of PERA is to provide present and future retirement or survivor benefits for its members. The investment function is managed in a manner to promote long-term financial security for our membership while maintaining the stability of the fund.

### Outline of Investment Policy

PERA's investment policy outlines the investment philosophy and guidelines within which the fund's investments will be managed, and includes the following:

- Strategic asset allocation is the most significant factor influencing long-term investment performance and asset volatility.
- The fund's liabilities are long-term and the investment strategy will therefore be long-term in nature.
- The asset allocation policy will be periodically re-examined to ensure its appropriateness to the then-prevailing liability considerations.
- As a long-term investor, PERA will invest across a wide spectrum of investments in a prudent manner.
- Active management may be expected to add value over passive investment alternatives under appropriate conditions.

The Board determines the strategic asset allocation policy for the fund. The Board's policy specifies the desired target allocation for each asset class as well as the ranges within which each asset class may operate. The targeted asset allocation mix in effect during 2012 and the specified ranges for each asset class are as follows:

ASSET CLASS	TARGET ALLOCATION	PERMISSIBLE RANGE
Global Equity	56%	50%–62%
Fixed Income	25%	22%–28%
Real Estate	7%	4%–10%
Alternative Investments	7%	4%–10%
Opportunity Fund	5%	0%–8%
<b>Total</b>	<b>100%</b>	

The asset allocation policy is determined by an intensive asset/liability analysis. Expected investment returns, risks, and correlations of returns are considered. The characteristics of the fund's liabilities are analyzed in conjunction with expected investment risks and returns. The targeted strategic asset allocation is designed to provide appropriate diversification and to balance the expected total rate of return with the volatility of expected returns. The asset allocation targets are adhered to through the implementation of a rebalancing policy.

Investments are managed and monitored in a manner which seeks to balance return and risk within the asset/liability framework. The Chief Investment Officer is authorized to execute investment transactions on behalf of the Board. Assets are managed both internally and externally. In making investment decisions, the Board and staff utilize external experts in various fields including risk and performance analysis, portfolio construction, rebalancing techniques, and other important investment functions and issues.

## Colorado PERA Report on Investment Activity

*Does Not Include the Defined Contribution Plans*

### Corporate Governance

#### ***General Policy***

Although PERA is not subject to the Employee Retirement Income Security Act of 1974 (ERISA), the Board complies with the position taken by the U.S. Department of Labor (DOL) in February 1988. The DOL has stated that the right to vote shares of stock owned by a pension plan is, in itself, an asset of the plan, and therefore the fiduciary's responsibility to manage the assets includes proxy voting. PERA regularly works with various member organizations and federal oversight and legislative committees to promote and support national standards of corporate governance that protect long-term investor interests.

#### ***Colorado PERA Board's Shareholder Responsibility Committee***

To assist the Board in carrying out its fiduciary responsibilities in voting proxies, the Board established a Shareholder Responsibility Committee. The PERA General Counsel serves as an adviser to the Committee. The Board and the Shareholder Responsibility Committee have delegated to its staff in the Legal Department the authority to execute and vote all proxies according to the PERA Proxy Voting Policy. Proxy issues are reviewed by staff on a case-by-case basis and then voted according to guidelines established by the PERA Proxy Voting Policy. PERA retains proxy voting analysts to assist in the proxy voting process.

#### ***Proxy Voting Policy***

The PERA Proxy Voting Policy sets forth directives on a broad range of issues. The voting of proxy ballots for all domestic and internally-managed non-U.S. stocks is accomplished by PERA's Legal Department. PERA regularly reviews and revises the Proxy Voting Policy to keep it up to date with established corporate governance standards. PERA's Proxy Voting Policy can be viewed on PERA's Web site at <http://www.copera.org>.

*(The Colorado PERA Report on Investment Activity was prepared by internal staff.)*



**Investment Brokers/Advisers***Does Not Include the Defined Contribution Plans*

Abel/Noser Corp.  
 Alignment Capital Group, LLC  
 Baird (Robert W.) & Co., Incorporated  
 Banc of America Securities, LLC  
 Barclays Capital Inc.  
 Bloomberg Tradebook LLC  
 BNP Paribas Securities Corp.  
 BNY Mellon Capital Markets LLC  
 Calyon Securities (USA), Inc.  
 Cantor Fitzgerald & Co.  
 Citigroup Global Markets Inc.  
 Cortview Capital Securities LLC  
 Credit Suisse Securities (USA) LLC  
 Davidson (D.A.) & Co. Inc.  
 Deutsche Bank Securities Inc.  
 Fortis Securities, LLC  
 FTN Financial Services Corp.  
 Gleacher & Company Securities, Inc.  
 Goldman Sachs & Co.  
 Heitman Capital Management Corp.  
 HSBC Securities (USA) Inc.  
 ING Financial Markets, LLC  
 INVESCO Realty Advisors  
 J.P. Morgan Securities, Inc.  
 Jefferies & Co., Inc.  
 LaSalle Investment Management

Liquidnet, Inc.  
 Macquarie Capital (USA,) Inc.  
 Morgan Stanley & Co. Inc.  
 National Bank Financial of Canada Inc.  
 Nomura Securities International, Inc.  
 Piper Jaffray & Co.  
 Raymond James & Associates, Inc./Morgan Keegan  
 RBC Capital Markets Corporation  
 RBS Securities, Inc.  
 RREEF Real Estate Investment Managers  
 Sanford C. Bernstein & Co., LLC  
 SG Americas Securities, LLC  
 Sidoti & Company, LLC  
 Sterne Agee & Leach, Inc  
 Stifel, Nicolaus & Company Incorporated  
 The Northern Trust Company  
 U.S. Bancorp Investments Inc.  
 UBS Securities, LLC  
 Wells Fargo Securities, LLC

*Certain broker agreements include provisions for commission recapture.*

**Schedule of Commissions**

*For Year Ended December 31, 2012  
 (In Thousands of Dollars)*

<b>INVESTMENT MANAGER</b>	<b>2012 VALUE</b>
Fixed Income <sup>1</sup>	\$10,887
Equities	2,388
Total commissions	13,275
Commission sharing	221
<b>Total commissions</b>	<b>\$13,496</b>

<sup>1</sup> Fixed income commissions are estimated.

*The Schedule of Commissions does not include commingled funds.*

## Investment Summary

Does Not Include the Defined Contribution Plans  
(In Thousands of Dollars)

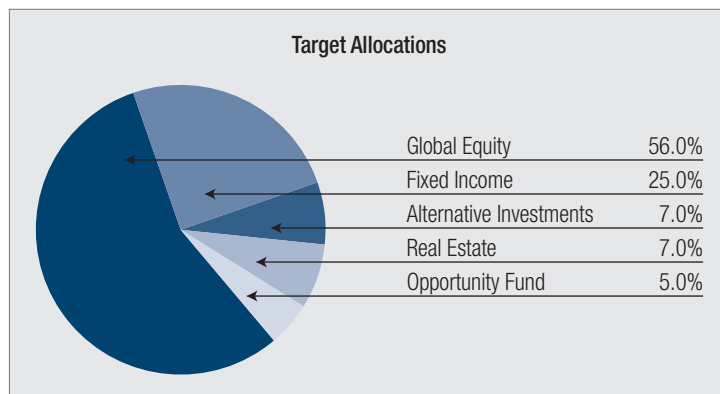
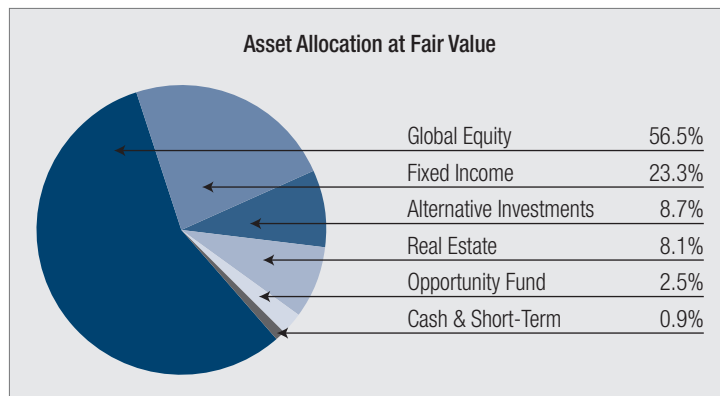
	FAIR VALUE PER	REALLOCATION <sup>1</sup>	FAIR VALUE PER	TARGET <sup>2</sup>	PERCENT OF		
	FINANCIAL STATEMENT		INVESTMENT PORTFOLIO		TOTAL FAIR VALUE		
	DECEMBER 31, 2012		DECEMBER 31, 2012		2012	2011	2010
Global Equity	\$22,540,579	\$180,035	\$22,720,614	56.0%	56.5%	55.5%	57.7%
Fixed Income	9,180,709	169,491	9,350,200	25.0%	23.3%	23.6%	22.9%
Alternative Investments	3,463,149	44,904	3,508,053	7.0%	8.7%	9.3%	9.3%
Real Estate Investments	3,284,289	(49,370)	3,234,919	7.0%	8.1%	8.6%	7.4%
Opportunity Fund	755,929	261,940	1,017,869	5.0%	2.5%	2.1%	2.1%
Cash and Short-Term Investments							
Operating Cash	418	(418)	—				
Investment Cash and Short-Term	941,367	(580,413)	360,954	—	0.9%	0.9%	0.6%
Net Investment Receivables and Payables	26,587	(26,587)	—				
<b>Total Investments</b>	<b>\$40,193,027</b>	<b>(\$418)</b>	<b>\$40,192,609</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

<sup>1</sup> Investment receivables, payables, accruals and cash and short-term have been reallocated back to the investment portfolios that hold them.

<sup>2</sup> An Asset/Liability Study was undertaken in 2010, after the enactment of Senate Bill 10-001, with the objective of determining the optimal strategic asset allocation policy. In September 2010, based on the study, the Board approved the asset allocation targets and ranges.

## Asset Allocation at Fair Value

Does Not Include the Defined Contribution Plans  
Year End December 31, 2012



## Schedule of Investment Results

*Does Not Include the Defined Contribution Plans  
As of December 31, 2012*

Hewitt EnnisKnupp, Inc., the Board's Investment Performance consultant, provides the investment returns for the fund based on data made available by the fund's custodian, The Northern Trust Company. Listed below are the one-, three-, five-, and ten-year net-of-fees time-weighted rates of return for each asset class and their respective benchmarks.

	2012	3-YEAR	5-YEAR	10-YEAR
<b>PERA Total Portfolio</b>	<b>12.9%</b>	<b>9.4%</b>	<b>2.6%</b>	<b>8.4%</b>
Total Fund Policy Benchmark <sup>1</sup>	13.4%	9.5%	2.8%	—
Median Plan (BNY Mellon Performance and Risk Analytics <sup>1</sup> Median Public Fund Universe)	13.0%	8.7%	2.6%	7.2%
<b>Global Stocks</b>	<b>16.9%</b>	<b>9.5%</b>	<b>1.0%</b>	<b>8.4%</b>
Global Equity Custom Benchmark <sup>1</sup>	17.2%	9.3%	0.8%	—
<b>Fixed Income</b>	<b>5.9%</b>	<b>7.3%</b>	<b>6.9%</b>	<b>6.1%</b>
Fixed Income Custom Benchmark <sup>1</sup>	5.6%	6.8%	6.3%	5.4%
<b>Alternative Investments</b>	<b>11.0%</b>	<b>12.5%</b>	<b>4.0%</b>	<b>12.8%</b>
Alternative Custom Benchmark <sup>2</sup>	18.9%	14.2%	5.1%	10.7%
<b>Real Estate</b>	<b>11.5%</b>	<b>14.3%</b>	<b>(2.6%)</b>	<b>8.4%</b>
Real Estate Custom Benchmark <sup>3</sup>	10.3%	14.1%	(1.1%)	7.2%
<b>Opportunity Fund</b>	<b>4.6%</b>	<b>3.9%</b>	<b>3.2%</b>	<b>—</b>
Opportunity Fund Benchmark <sup>4</sup>	4.4%	5.8%	1.2%	—

Note: Performance calculations were prepared using net-of-fees time-weighted rates of return.

<sup>1</sup> The PERA Board adopted benchmarks beginning April 1, 2004, for each of the various asset classes. The adopted benchmarks have changed over time and, accordingly, the benchmark returns presented represent a blend, as follows:

- The Total Fund Policy Benchmark is a combination of 56 percent of the Global Equity Custom Benchmark; 25 percent of the Fixed Income Custom Benchmark; 7 percent of the Real Estate Custom Benchmark; 7 percent of the Alternative Custom Benchmark, and 5 percent of the Opportunity Fund Benchmark. Beginning January 2011 and prior to January 2012, a combination of 56 percent of the Global Equity Custom Benchmark; 25 percent of the Fixed Income Custom Benchmark; 7 percent of the Real Estate Custom Benchmark; 7 percent of the Alternative Custom Benchmark, and 5 percent of the Public Markets Benchmark. Beginning January 2009 and prior to January 2011, a combination of 58 percent of the Global Equity Custom Benchmark; 25 percent of the Fixed Income Custom Benchmark; 7 percent of the Real Estate Custom Benchmark; 7 percent of the Alternative Custom Benchmark, and 3 percent of the Public Markets Benchmark. For 2008, a combination of 43 percent of the Dow Jones Wilshire 5000 Stock Index; 15 percent of the MSCI ACWI ex-U.S. Index; 25 percent of the Barclays Capital Universal Bond Index; 7 percent of the Real Estate Custom Benchmark; 7 percent of the Alternative Custom Benchmark, and 3 percent of the Public Markets Benchmark. Prior to January 1, 2008, the weight for the DJ Wilshire 5000 was 45 percent and the NCREIF Timber Index (which was replaced by the Public Markets Benchmark in 2008) was 1 percent. Prior to January 1, 2006, the weight for the MSCI ACWI ex-U.S. Index was 14 percent and the Alternative Custom Benchmark was 8 percent.
- Global Equity Custom Benchmark—52.0 percent DJ U.S. Total Stock Market Index and 48.0 percent MSCI ACWI ex-U.S. Index. Prior to October 1, 2012, 58.0 percent DJ U.S. Total Stock Market Index and 42.0 percent MSCI ACWI ex-U.S. Index. Prior to April 2012, 64.0 percent DJ U.S. Total Stock Market Index and 36.0 percent MSCI ACWI ex-U.S. Index. Prior to October 1, 2011, 69.0 percent DJ U.S. Total Stock Market Index and 31.0 percent MSCI ACWI ex-U.S. Index. Prior to April 1, 2011, 74.1 percent DJ U.S. Total Stock Market Index (replaced the DJ Wilshire 5000 in 2009) and 25.9 percent MSCI ACWI ex-U.S. Index. Prior to January 1, 2008, 75 percent DJ Wilshire 5000 and 25 percent MSCI ACWI ex-U.S. Index. Prior to January 1, 2006, 76.3 percent DJ Wilshire 5000 and 23.7 percent MSCI ACWI ex-U.S. Index.
- Fixed Income Custom Benchmark—98 percent of the Barclays Capital Universal Bond Index and 2 percent of the Barclays Capital Long Government/Credit Index. Prior to July 1, 2010, Barclays Capital Universal Bond Index. Prior to April 1, 2004, the Barclays Capital Aggregate Bond Index.

<sup>2</sup> DJ U.S. Total Stock Market Index plus 250 basis points annually. Prior to January 1, 2012, DJ U.S. Total Stock Market Index (replaced the DJ Wilshire 5000 in 2009) plus 300 basis points annually.

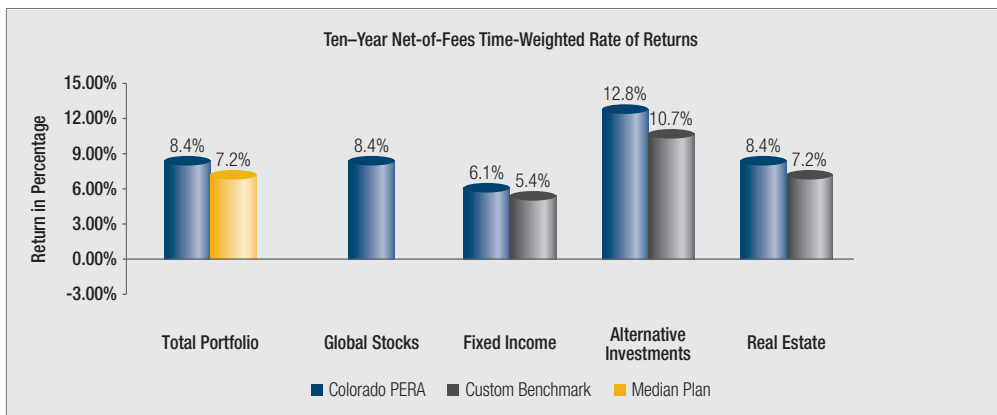
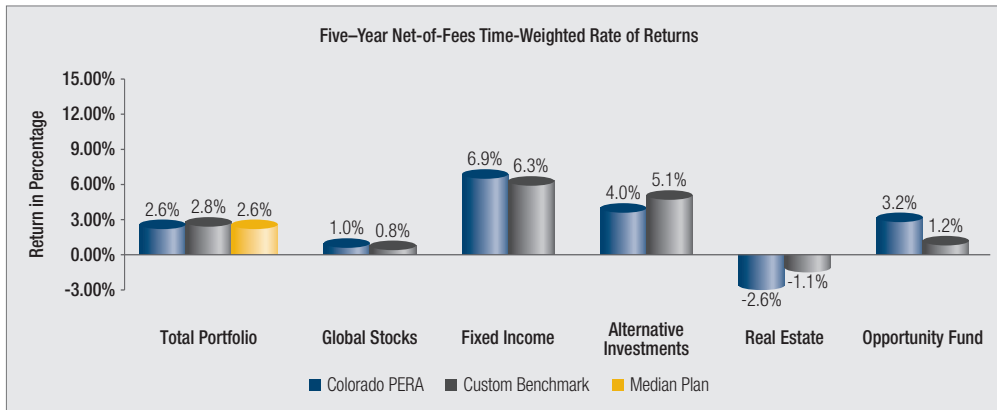
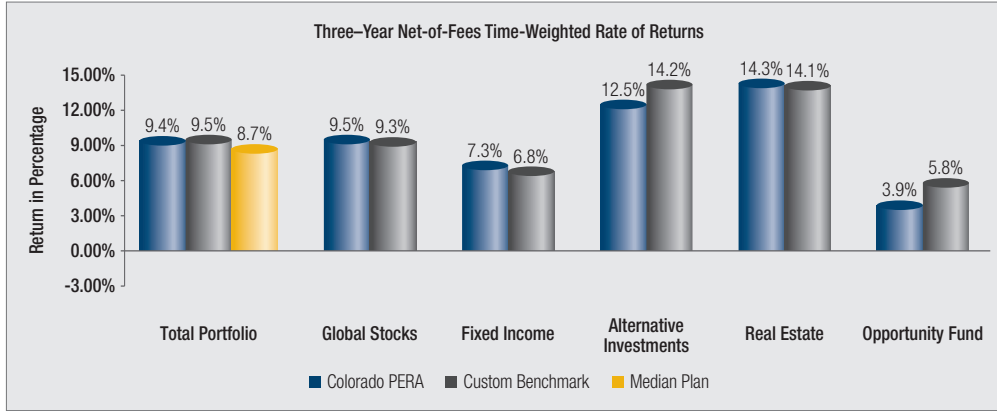
<sup>3</sup> NFI (NCREIF Open-end Core Fund Index) plus 50 basis points annually. Prior to January 1, 2012, the NFI plus 100 basis points annually. Prior to January 1, 2006, a combination of 45% of the NCREIF Index, 15% of the NAREIT Index, 20% of the Salomon Brothers Mortgage-Backed Securities Index and 20% of the GPR General European Property Index.

<sup>4</sup> A market value weighted aggregate of the benchmarks of the individual strategies included in the Opportunity Fund. Prior to January 2012, a combination of 69.1 percent of the Global Equity Custom Benchmark and 30.9 percent of the Fixed Income Custom Benchmark. Beginning January 1, 2008 and prior to January 2011, a combination of 51.8 percent DJ U.S. Total Stock Market Index (replaced the DJ Wilshire 5000 in 2009), 18.1 percent MSCI ACWI ex-U.S. Index, and 30.1 percent Fixed Income Custom Benchmark.

## Schedule of Investment Results

Does Not Include the Defined Contribution Plans  
As of December 31, 2012

Hewitt EnnisKnupp, Inc., the Board's Investment Performance consultant, provides the investment returns based on data made available by the fund's custodian, The Northern Trust Company. Listed below are the three-, five-, and ten-year net-of-fees time-weighted rates of return for the total fund and each asset class and their respective benchmarks.



## Fund Performance Evaluation

*Does Not Include the Defined Contribution Plans  
(Performance returns are net-of-fees unless otherwise indicated)*

### Evaluation

Hewitt EnnisKnupp, Inc. and The Northern Trust Company (Northern Trust) are retained by PERA to evaluate fund performance. Hewitt EnnisKnupp, Inc. is also used for the real estate portfolio performance evaluation and industry comparisons. In their analysis, Hewitt EnnisKnupp, Inc. and Northern Trust include all investments within the portfolio, including cash and accrued income. They also compute the annual rates of return. In order to provide fund returns inclusive of all asset classes, performance calculations were prepared using time-weighted rates of return.

### Asset Allocation

PERA's long-term strategic asset allocation policy sets forth specific portfolio targets. Asset allocation targets effective during 2012, approved by the Board in 2010, are as follows: global equity 56 percent, fixed income 25 percent, alternative investments 7 percent, real estate investments 7 percent, and opportunity fund 5 percent.

### Total Portfolio Results

PERA adopted a policy benchmark, which is a passive representation of the asset allocation policy, as of April 1, 2004. For the year ended December 31, 2012, PERA's total fund returned 12.9 percent compared to the policy benchmark return of 13.4 percent. For the three- and five-year periods ending December 31, 2012, PERA's total fund returned 9.4 percent and 2.6 percent, respectively, compared to 9.5 percent and 2.8 percent on an annualized basis, respectively, for the policy benchmark for these periods.

For the year ended December 31, 2012, the total fund returned 12.9 percent, compared to the BNY Mellon Median Public Fund return of 13.0 percent. As of December 31, 2012, the BNY Mellon Median Public Fund measure was comprised of 67 public pension funds with assets of approximately \$0.7 trillion. For the three- and five-year periods ending December 31, 2012, the BNY Mellon Median Public Fund returned 8.7 percent and 2.6 percent on an annualized basis, respectively. PERA's 10-year annualized rate of return was 8.4 percent compared to the BNY Mellon Median Public Fund return of 7.2 percent.

### Global Stocks

Global equity markets were up significantly in 2012, despite mostly negative macro news (e.g., slowing global economy, faltering European economies, decelerating emerging markets economic growth, and fiscal cliff concerns in the U.S.). Supportive policy measures by central banks offset these negatives, minimizing the investor concerns that had been overshadowing equity markets. Investors were willing to look past the relatively disappointing global economic data and focus on the positive implications for future growth associated with receding inflation pressures and supportive central bank policies.

Equity investors became less risk averse throughout the year, especially once a near-term solution for Europe appeared to mitigate the chance of a Euro breakup. The year began with investor optimism on the back of the European Central Bank's (ECB) long-term refinancing operation announcement in December 2011, which offered additional credit support for bank lending and liquidity within the Eurozone area. This general optimism held until spring when concerns arose again over the ability of European periphery countries, namely Spain

and Italy, to remain solvent and repay or roll over their sovereign debt. In mid-June, the ECB president promised to do "whatever it takes" to preserve the Euro and assist Eurozone countries in resolving their financial woes. This clear message to financial markets helped to ease refinancing pressures on Eurozone countries.

In the U.S., while economic growth was tepid, the Federal Open Market Committee's continued commitment to quantitative easing lessened investor concerns regarding a U.S. recession.

For the emerging equity markets, 2012 was a year of uncertainty. Some emerging economies started exhibiting signs of decelerating growth in 2011, and 2012 confirmed some of these fears, as growth in some major emerging economies slowed. However as the year progressed, policymakers attempted to reflate economies, hoping to spur increased growth without creating or exacerbating asset bubbles or hurting longer term growth prospects. By the end of the year, expectations for 2013 growth in the BRIC (Brazil, Russia, India, and China) economies improved, and many other emerging markets exhibited strong or improving growth prospects.

Global equity markets ended the year with strongly positive returns. In the U.S., the DJ U.S. Total Stock Market Index returned 16.4 percent for the year. At the same time, the overall volatility in the U.S. stock market was noticeably less than that experienced in 2011. European equities rallied for most of the second half of the year, ending the year up 17.8 percent. Emerging markets equity returns varied significantly by region, with the overall MSCI Emerging Markets Index up 18.2 percent for the year. Emerging Asia returned over 20 percent, while emerging Latin America returned less than 9 percent. Emerging Eastern Europe, excluding Russia, was the strongest emerging region, returning 31 percent.

Because of investors' increased risk appetite through the year, cheaper, lower-quality stocks generally outperformed higher quality stocks. Cyclical sectors, such as Financials and Consumer Discretionary, posted stronger returns than more defensive sectors, such as Utilities and Consumer Staples.

In 2012, PERA's global equity portfolio returned 16.9 percent, underperforming the benchmark's return of 17.2 percent. PERA's three-year annualized global equity portfolio total return was 9.5 percent, exceeding the benchmark return of 9.3 percent. The five-year annualized total return for PERA's global equity portfolio was 1.0 percent, exceeding the benchmark return of 0.8 percent.

### Fixed Income

While 2012 began with very low interest rates, risk premiums on corporate credit, emerging markets, and high yield debt were elevated, creating some opportunity for fixed income investors. The first half of the year was turbulent as geopolitical concerns continued to threaten global growth. By the second half, additional monetary policy actions in both the U.S. and Europe caused risk premiums to fall dramatically, and drove returns higher for the lower credit quality segments of the fixed income market.

## Fund Performance Evaluation

*Does Not Include the Defined Contribution Plans*

*(Performance returns are net-of-fees unless otherwise indicated)*

The first quarter of 2012 demonstrated some early signs of recovery for the U.S. economy as the unemployment rate dropped from 8.5 percent in December 2011 to 8.2 percent in March 2012 and both consumer spending and manufacturing accelerated. U.S. Treasury yields rose modestly and the improving economic conditions provided a favorable environment for fixed income credit products.

The tone of the markets became decidedly less optimistic in the second quarter. Long maturity U.S. Treasury yields plummeted. Political gridlock in the U.S. Congress in dealing with looming multi-trillion dollar structural budget deficits continued. Economic data released during the quarter was decidedly weaker as employment growth slowed and manufacturing surveys, both in the U.S. and abroad, decelerated. In response, on June 20, the Federal Reserve reiterated its commitment to keep the federal funds rate close to zero, at least through late 2014. Also, the Federal Reserve announced an extension of the maturity extension program (“Operation Twist”) by \$267 billion to continue through the end of 2012 and intended to put downward pressure on long-term interest rates and help make broader financial conditions more accommodative.

Concerns about economic growth continued into the beginning of the third quarter. Growth in China was slow and recessionary conditions continued in Europe. In the U.S., business confidence and spending waned in the face of fiscal uncertainties known as the “fiscal cliff.” The Federal Reserve responded aggressively with a third round of unconventional monetary stimulus known as quantitative easing (QE3) comprised of an open-ended commitment to purchase \$40 billion per month in agency mortgage-backed securities along with an extension of its commitment to maintain low short-term rates into 2015. The European Central Bank also took an aggressive step in its fight against fiscal difficulties by announcing large-scale purchases of sovereign debt with maturities up to 3 years, subject to certain conditions, known as Outright Monetary Transactions. These bold actions fueled higher prices for risky assets.

During the fourth quarter of 2012, investor attention shifted to the November general elections. Uncertainty and pessimism surrounding the fiscal cliff dominated news headlines and drove market volatility higher. Although the long suffering housing market gained some traction, retail sales and employment growth moderated. Business spending was weak. On December 12, the Federal Reserve announced an open-ended commitment to purchase an additional \$45 billion in Treasuries per month and committed to maintain the low federal funds rate as long as the unemployment rate exceeds 6.5 percent, and inflation expectations do not exceed 2.5 percent.

The total return of the Barclays Capital U.S. Universal Index was 5.5 percent, led by the lowest quality sectors. U.S. Treasury yields were largely unchanged for the year. In contrast, credit spreads narrowed dramatically during the second half of the year driving the Barclays Capital High Yield Index to a return of 15.8 percent. PERA’s fixed income portfolio returned 5.9 percent during 2012, outperforming the benchmark’s return of 5.6 percent. PERA’s three- and five-year returns for the fixed income portfolio were 7.3 percent and 6.9 percent, respectively, outperforming the benchmark’s returns of 6.8 percent and 6.3 percent, respectively.

## Alternatives

The private equity market had a good year in 2012 although not as robust as some expected at the start of the year. With almost half a trillion dollars in available private equity capital, debt financing becoming more available, and deal trends increasing year over year, many believed 2012 was ripe for increased activity.

Despite predictions, deal activity during the first 3 quarters of 2012 lagged due to multiple factors including: (1) uncertainty around the political and regulatory environment; (2) continuing concerns regarding Europe and China and the effects on the global economy; and (3) less than anticipated merger and acquisition (M&A) activity from cash-rich corporations. During the fourth quarter, however, investors witnessed a pickup in deal activity as the threat of tax hikes spurred transaction volume. One of the major private equity trends in 2012 was the proliferation of secondary buyouts, or sponsor-to-sponsor transactions. For the first time, more activity occurred in secondary transactions than transactions where a corporate acquirer was involved. This was somewhat related to the dearth of corporate M&A activity as well as the growing number of portfolio companies maintained by private equity sponsors ready for exits.

The venture capital market continues to be somewhat challenged in terms of fundraising and deal activity. There have been signs of strength as the public equity markets have reemerged as an exit option with venture capital-backed initial public offerings in 2012 at their highest levels since 2007. Industry data suggests private equity fundraising totaled approximately \$315 billion, a marginal increase from 2011. The fundraising environment for private equity firms continues to be difficult as the number of funds having a final close has decreased by 30 percent and the time spent marketing those opportunities has lengthened significantly. During 2012, PERA committed \$600 million to eleven investment opportunities, six in the buyout category, three in the special situations category, and two in the venture capital category. PERA also sold its interest in seven private equity partnerships during the year.

Performance for the asset class was positive during the year as the underlying portfolio companies fared well despite a slower first half of the year in terms of activity, coupled with an uncertain macro environment. Cash flow for the year was positive due to exit activity, particularly in the fourth quarter. The portfolio paid \$530 million in capital calls and received \$897 million in distributions for the year. PERA’s alternative investment portfolio returned 11.0 percent in 2012 compared with the custom alternatives benchmark return of 18.9 percent. Alternative Investments underperformed for the year principally as a result of two factors: (1) Alternative Investment returns lagged public stock market returns as often happens when the stock market has a large move and (2) there were more limited opportunities to realize partnership investments. PERA’s alternative portfolio returned 12.5 percent and 4.0 percent, respectively, for the three- and five-year annualized periods compared with the annualized custom benchmark returns of 14.2 percent and 5.1 percent, respectively for the same periods. The alternative investment program’s net, internal rate of return since inception as of December 31, 2012, was 10.2 percent compared to the custom benchmark’s internal rate of return since inception of 10.0 percent.

## Fund Performance Evaluation

*Does Not Include the Defined Contribution Plans  
(Performance returns are net-of-fees unless otherwise indicated)*

### Real Estate

During 2012, the U.S. commercial real estate market continued to make significant improvements from the depths of the recession. Although there is widespread uncertainty about the strength of the economic recovery, real estate in general seems to have returned to a more normalized state such that it is generating both capital appreciation and income return. The outlook for property fundamentals seems to have moderated. While a significant retrenchment is not expected, there is little evidence of outsized improvement in property fundamentals in the near term. Both equity and debt capital continue to flow into the real estate sector. Investor appetite for risk seems to have strengthened as core assets appear to be fully priced, offering a reduced opportunity for significant capital appreciation.

Although vacancy rates are high, the trend continues to be more positive than expected. All asset types have experienced increases in occupancy. Net absorption of apartment vacancy continues to outperform, although there is some concern that with apartment demand at record highs and new construction picking up, the sector may become over supplied in the near term. In other sectors with long-term leases, tenants are executing new leases in anticipation that market lease rates will begin to rise.

Debt continues to become more available. Interest rates continue to decline, though at a much slower pace. Active lenders are principally focused on higher quality assets in core markets with stable income. There has been some increase in lenders willing to lend on higher risk assets and some lenders have even started to originate construction loans again.

In the Asia Pacific region, despite a generally positive outlook, the expectations for rental and capital value growth have been diminished. In the European region, markets have experienced low transaction volumes and capital value declines as a result of the greater economic and banking uncertainty.

In 2012, the real estate portfolio had a total return of 11.5 percent, compared to its custom benchmark of 10.3 percent. The real estate portfolio returned 14.3 percent and negative 2.6 percent, respectively, for the three- and five-year annualized periods, compared to the custom benchmark returns of 14.1 percent and negative 1.1 percent, respectively. As of December 31, 2012, real estate was principally comprised of U.S. private equity, U.S. private and public debt, and international private equity investments.

### Opportunity Fund

As of December 31, 2012, PERA's opportunity fund comprises investments in timber, commodities, risk parity strategies, and tactical opportunities strategies.

Over the course of 2012, global timber markets were stable to positive. By year-end, the U.S. timber market had begun to respond favorably to the improvement in the domestic housing market. Aided by the improving domestic market and steady overseas demand from Asia in general, and China more specifically, the U.S. Pacific Northwest reported positive performance. In the U.S. South, property managers tended to postpone timber harvests in anticipation of better future pricing levels. Internationally, New Zealand showed strong performance with contributions from both domestic and export markets. However, Australia reported weaker performance as a result of subdued domestic building activity.

The commodity markets were characterized by extreme volatility during the year as results shifted between positive and negative performance almost quarterly. Factors which influenced performance included geopolitical tensions between the U.S., Israel, and Iran, political uncertainty in Greece and France, disappointing economic data from China, and supportive comments and actions by the European Central Bank and the Federal Reserve. Of the commodities which comprise the Dow Jones UBS Commodities Index, the top performing commodity during 2012 was unleaded gasoline followed by soybeans, while the worst performing commodity in the index was coffee.

PERA's timber portfolio produced one-, three-, and five-year annualized returns of 5.6 percent, 4.9 percent, and 3.1 percent, respectively compared with the NCREIF Timberland Index returns of 7.8 percent, 3.0 percent and 2.7 percent, respectively, for these periods. PERA's commodity portfolio produced one- and three-year returns of negative 0.5 percent and 1.1 percent, respectively, compared with the Dow Jones UBS Commodities Index return of negative 1.1 percent and 0.1 percent, respectively. PERA's opportunity fund portfolio returned 4.6 percent in 2012 compared to its custom benchmark return of 4.4 percent. The opportunity fund's annualized three- and five-year returns were 3.9 percent and 3.2 percent, respectively, compared to its custom benchmark return of 5.8 percent and 1.2 percent, respectively.

## Profile of Investments in Colorado

Does Not Include the Defined Contribution Plans  
As of December 31, 2012  
(In Thousands of Dollars)

	FAIR VALUE
Common stock of companies headquartered in Colorado	\$94,026
Funds under management of Colorado companies <sup>1</sup>	92,596
Real estate equity	119,034
Committed to future funding	65,705
PERA portion of general partnerships investing in Colorado companies <sup>2</sup>	60,267
Bonds and notes of entities headquartered in Colorado	53,961
<b>Total</b>	<b>\$485,589</b>

<sup>1</sup> General Partners based outside of Colorado.

<sup>2</sup> Venture capital partnerships and private placements domiciled in Colorado.

## Largest Stock Holdings by Fair Value

Does Not Include the Defined Contribution Plans  
As of December 31, 2012  
(In Thousands of Dollars)

	SHARES	FAIR VALUE
Apple Inc.	724,846	\$386,365
Exxon Mobil Corp.	3,029,176	262,175
Chevron Corp.	1,584,817	171,382
Google Inc.	227,054	161,065
Philip Morris Intl.	1,853,526	155,029
International Business Machines Corp.	809,096	154,982
Pfizer Inc.	5,778,660	144,929
JP Morgan Chase & Co.	2,903,664	127,674
Novartis AG	2,021,577	126,880
AT&T Inc.	3,701,262	124,770

The top ten holdings do not include commingled funds.

A complete list of holdings is available upon request.

## Largest Bond Holdings by Fair Value

Does Not Include the Defined Contribution Plans  
As of December 31, 2012  
(In Thousands of Dollars)

	PAR VALUE	INCOME RATE	MATURITY DATE	FAIR VALUE
US Treasury Notes	\$273,000	2.375%	9/30/2014	\$283,131
US Treasury Notes	244,000	2.750%	11/30/2016	265,045
US Treasury Notes	185,000	2.750%	2/28/2018	203,789
US Treasury Notes	170,000	2.750%	12/31/2017	187,053
US Treasury Notes	169,000	2.250%	1/31/2015	175,919
US Treasury Notes	145,000	1.875%	6/30/2015	150,619
US Treasury Bonds	102,000	6.250%	8/15/2023	146,243
US Treasury Notes	130,000	3.125%	4/30/2017	144,056
US Treasury Notes	135,000	1.250%	2/15/2014	136,566
US Treasury Notes	103,000	1.250%	9/30/2015	105,575

The top ten holdings do not include commingled funds.

A complete list of holdings is available upon request.



# Voluntary Investment Program, Defined Contribution Retirement Plan, and Deferred Compensation Plan (Plans) Report on Investment Activity

(In Thousands of Dollars)

## Overview

PERA established the Voluntary Investment Program (PERAPlus 401(k) Plan) on January 1, 1985, under Section 401(k) of the Internal Revenue Code. The Defined Contribution Retirement Plan (DC Plan) was established January 1, 2006, as an Internal Revenue Code § 401(a) governmental profit-sharing plan. On July 1, 2009, PERA assumed the administrative and fiduciary responsibility for the State of Colorado Deferred Compensation Plan (PERAPlus 457 Plan). PERA publishes an Annual Report for the PERAPlus 401(k), the DC Plan, and the PERAPlus 457 Plan and mails it to all plan participants.

The PERAPlus 401(k) Plan includes voluntary contributions made by employees of PERA-affiliated employers in the State, School, Local Government, Judicial, and Denver Public Schools Division Trust Funds. These contributions are entirely separate from those that members make to the defined benefit plan each month. On December 31, 2012, the PERAPlus 401(k) Plan had net assets of \$2,105,675 and 69,559 accounts, representing an increase of 11.3 percent in net assets and a 2.9 percent decrease in the number of participants from December 31, 2011, respectively.

The DC Plan offers a defined contribution alternative to the PERA defined benefit plan for new State employees hired on or after January 1, 2006, and certain community college employees hired on or after January 1, 2008. On December 31, 2012, the DC Plan had net assets of \$83,267 and 4,362 accounts, representing increases of 30.9 percent in net assets and 8.3 percent in the number of participants from December 31, 2011, respectively.

The PERAPlus 457 Plan includes voluntary contributions made by employees working for a PERA-affiliated employer that have also affiliated with the PERAPlus 457 Plan. The employees of some employers that had affiliated with the 457 Plan prior to July 1, 2009, and were not affiliated with PERA, remain eligible to contribute. On December 31, 2012, the PERAPlus 457 Plan had net assets of \$544,518 and 17,469 accounts, representing an increase of 12.5 percent in net assets and a 2.0 percent decrease in the number of participants from December 31, 2011, respectively.

## PERAPlus 401(k) Plan Year-End Statistics

YEAR	NET ASSETS	NUMBER OF ACCOUNTS
2003	\$914,015	72,185
2004	1,204,725	73,634
2005	1,296,998	72,867
2006	1,522,244	72,707
2007	1,730,930	72,832
2008	1,303,807	72,353
2009	1,674,861	75,819
2010	1,902,325	73,860
2011	1,891,347	71,620
2012	2,105,675	69,559

## DC Plan Year-End Statistics

YEAR	NET ASSETS	NUMBER OF ACCOUNTS
2006	\$595	225
2007	2,547	489
2008	4,996	864
2009	37,475	3,039
2010	53,384	3,479
2011	63,597	4,029
2012	83,267	4,362

## PERAPlus 457 Plan Year-End Statistics

YEAR	NET ASSETS	NUMBER OF ACCOUNTS
2009	\$393,352	18,007
2010	458,881	18,215
2011	483,965	17,821
2012	544,518	17,469

## Outline of Investment Policies

### Objectives

The Board is responsible for approving an appropriate range of investments that address the risk/return spectrum available to the participants of the Plans. The objectives of the Plans are to:

- Provide sufficient variety among the investment categories so that participants may choose from a range of investment opportunities having different expected risks and different expected returns within a reasonably limited number of choices.
- Provide investment funds that have investment returns comparable to returns for funds having similar objectives and risk within the particular investment categories.
- Control management costs within reasonable and prudent levels.

### Responsibilities

The Investment Advisory Committee (IAC), a committee of internal management staff, monitors and evaluates the investment asset mix and funds of the Plans and the performance of fund managers. R.V. Kuhns & Associates, Inc. serves as consultant to the IAC and the Board.

Recommendations of the IAC are presented to the Chief Investment Officer and the Executive Director of PERA. Upon concurrence of the Chief Investment Officer and the Executive Director, the recommendations are presented to the Benefits Committee of the Board for its consideration.

The Board is responsible for:

- The oversight of the Plans and portfolio composition.
- Approving changes to the plan documents.
- Approving the investment policies and amendments thereto.
- Accepting or rejecting the IAC's recommendations with regard to policies, objectives, and specific investment categories and funds.

# Voluntary Investment Program, Defined Contribution Retirement Plan, and Deferred Compensation Plan (Plans) Report on Investment Activity

(In Thousands of Dollars)

## PERAdvantage Investment Options

The inception date for the PERAdvantage investment options was October 1, 2011. At that time, all previous investments in the Plans automatically transferred to the PERAdvantage investments. The PERAdvantage investments provide diversification within each of the six primary funds, one additional specialized fund, and 10 target retirement date funds. The PERAdvantage investments simplify choices, increase diversification, and help participants identify investments based on how the fund invests the money rather than name familiarity. In addition, the Plans also provide a self-directed brokerage account for participants to select their own investments.

Participants invest assets in one or more of the following investments:

### Primary Investment Options

- **PERAdvantage Capital Preservation Fund:** The fund seeks to provide consistent investment income with a stable net asset value primarily by investing in a portfolio of high quality, medium-term fixed income securities. This fund invests in securities issued by the U.S. Government or one of its agencies, including agency mortgage bonds, as well as high-grade corporate bonds. The fund is managed by Great-West Capital Management, LLC, a federally registered investment advisor and a wholly-owned subsidiary of Great-West Life & Annuity Insurance Company.
- **PERAdvantage Fixed Income Fund:** The fund seeks to generate income, preserve capital, and provide long-term capital appreciation by primarily investing in investment grade debt securities, but may invest a portion of its assets in high-yield securities, mortgage- or asset-backed securities, or derivative instruments. The fund is managed by PIMCO (targeted at 75 percent of the portfolio) and BlackRock (targeted at 25 percent of the portfolio).
- **PERAdvantage Real Return Fund:** The fund seeks to provide broad exposure to real assets and Treasury Inflation Protected Securities (TIPS) and to produce a return over a full market cycle that exceeds the rate of inflation. The fund invests in U.S. TIPS, Real Estate Investment Trusts (REITs), global commodity and natural resource stocks, and commodities. State Street Global Advisors manages the fund.
- **PERAdvantage U.S. Large Cap Stock Fund:** The fund seeks to provide long-term capital appreciation and dividend income primarily by investing in the common stock of companies located in the United States with large market capitalizations similar to those found in the Russell 1000™ Index. The fund is managed by PERA (targeted at 70 percent of the portfolio), LSV Asset Management (targeted at 15 percent of the portfolio), and Winslow Capital Management (targeted at 15 percent of the portfolio).
- **PERAdvantage International Stock Fund:** The fund seeks to provide long-term capital appreciation and dividend income primarily by investing in the common stock of companies located outside the United States. The fund invests in a wide array of international stocks similar to those found in the MSCI All Countries World Index (ACWI) ex-U.S. The fund is managed by

Harding Loevner (targeted at 35 percent of the portfolio), Dodge & Cox (targeted at 35 percent of the portfolio), and BlackRock (targeted at 30 percent of the portfolio).

- **PERAdvantage U.S. Small and Mid-Cap Stock Fund:** The fund seeks to provide long-term capital appreciation and dividend income primarily by investing in the common stock of companies located in the United States with small- and mid-market capitalizations similar to the securities included in the Russell 2500™ Index. The fund is managed by TimesSquare Capital Management (targeted at 35 percent of the portfolio), Dimensional Fund Advisors (targeted at 35 percent of the portfolio), and BlackRock (targeted at 30 percent of the portfolio).

### Additional Investment Options

- **PERAdvantage Target Retirement Date Funds:** Ten funds in five-year increments with varying asset mixes and risk levels based on expected retirement date. Each of the funds is invested in the corresponding BlackRock LifePath® Index Target Retirement Date fund. These funds use passive management strategies and become more conservative as the retirement date approaches. BlackRock manages the funds.
- **PERAdvantage SRI Fund:** The fund's primary objective is to generate income and conserve principal by investing in both equity and debt securities. These objectives are pursued by combining financial analysis with environmental, social and governance analysis. The fund may invest up to 45 percent of assets in non-U.S. securities, but no more than 25 percent other than ADRs. Pax World manages the fund.
- **TD Ameritrade Self-Directed Brokerage Account:** This account allows selection from numerous mutual funds and other types of securities, such as stocks and bonds, for an additional fee or fees. Investment in the self-directed brokerage account is offered through TD Ameritrade, a Division of TD Ameritrade, Inc.

### Loans

Participants in the PERAPlus 401(k) and PERAPlus 457 Plans may access their funds through loans as allowed under plan policy and the Internal Revenue Service. The DC Plan prohibits participant loans.

### Administrative Fees

Plan administrative fees pay for recordkeeping, custodial services, consulting, and internal PERA administrative expenses.

The administrative fee consists of a flat \$1.00 per month per participant per plan and an asset-based fee up to 0.14 percent per PERAdvantage fund. There is a 0.06 percent plan administrative fee on the self-directed brokerage account. Investments with revenue sharing reduce the asset-based administrative fee by the amount of such revenue sharing.

## Voluntary Investment Program, Defined Contribution Retirement Plan, and Deferred Compensation Plan (Plans) Schedule of Investment Results

FUND/BENCHMARK	2012	4TH QUARTER 2011
<b>PERAdvantage Capital Preservation Fund</b>	<b>2.0%</b>	<b>0.5%</b>
Hueler Stable Value Index (Equal Wtd Avg)	2.3%	0.6%
<b>PERAdvantage Fixed Income Fund</b>	<b>8.6%</b>	<b>1.9%</b>
Barclays US Agg Bond Index	4.2%	1.1%
<b>PERAdvantage Real Return Fund</b>	<b>7.3%</b>	<b>5.5%</b>
70% SSgA Real Asset Strategy <sup>1</sup> /30% Barclays US TIPS Index	7.6%	5.5%
<b>PERAdvantage U.S. Large Cap Stock Fund</b>	<b>15.7%</b>	<b>11.9%</b>
Russell 1000™ Index	16.4%	11.8%
<b>PERAdvantage International Stock Fund</b>	<b>19.8%</b>	<b>4.7%</b>
MSCI ACW Ex USA Index (Net)	16.8%	3.7%
<b>PERAdvantage U.S. Small and Mid Cap Stock Fund</b>	<b>19.4%</b>	<b>16.6%</b>
Russell 2500™ Index	17.9%	14.5%
<b>PERAdvantage SRI Fund</b>	<b>11.6%</b>	<b>7.8%</b>
60% S&P 500/40% Barclays Capital Agg Index	11.3%	7.5%
<b>PERAdvantage Income Fund</b>	<b>8.4%</b>	<b>4.2%</b>
BlackRock LifePath® Retirement Index	8.6%	4.2%
<b>PERAdvantage 2015 Fund</b>	<b>9.5%</b>	<b>4.8%</b>
BlackRock LifePath® 2015 Index	9.6%	4.8%
<b>PERAdvantage 2020 Fund</b>	<b>10.8%</b>	<b>5.5%</b>
BlackRock LifePath® 2020 Index	11.0%	5.6%
<b>PERAdvantage 2025 Fund</b>	<b>12.0%</b>	<b>6.2%</b>
BlackRock LifePath® 2025 Index	12.1%	6.1%
<b>PERAdvantage 2030 Fund</b>	<b>13.1%</b>	<b>6.7%</b>
BlackRock LifePath® 2030 Index	13.1%	6.7%
<b>PERAdvantage 2035 Fund</b>	<b>14.0%</b>	<b>7.3%</b>
BlackRock LifePath® 2035 Index	14.0%	7.1%
<b>PERAdvantage 2040 Fund</b>	<b>14.8%</b>	<b>7.8%</b>
BlackRock LifePath® 2040 Index	14.8%	7.5%
<b>PERAdvantage 2045 Fund</b>	<b>15.6%</b>	<b>8.2%</b>
BlackRock LifePath® 2045 Index	15.6%	7.9%
<b>PERAdvantage 2050 Fund</b>	<b>16.5%</b>	<b>8.7%</b>
BlackRock LifePath® 2050 Index	16.3%	8.3%
<b>PERAdvantage 2055 Fund</b>	<b>17.2%</b>	<b>8.9%</b>
BlackRock LifePath® 2055 Index	17.1%	8.6%

Performance is net of management and administration fees. As of November 2011, performance is calculated using Net Asset Values (NAV). The October 2011 performance is simulated. R.V. Kuhns & Associates calculated all performance.

PERAdvantage Funds commenced on October 1, 2011. Actual historic performance for the funds does not exist prior to November 1, 2011, due to transition. The October 2011 simulated performance is based on the composite performance of institutional accounts managed by the managers with investment strategies similar to those expected to be implemented by the managers in the funds or on the actual historical returns of the mutual fund utilized by the fund. To produce simulated returns, the managers' composite returns were combined in accordance with the target asset allocation.

<sup>1</sup> The SSgA Real Asset Strategy Index consists of 25 percent Barclays Capital U.S. Treasury Inflation Protected Securities Index, 20 percent Dow Jones U.S. Select REIT Index, 20 percent DJ-UBS Roll Select Commodity Index, 35 percent S&P Global LargeMidCap Commodity and Resources Index. Prior to December 1, 2012, the DJ-UBS Roll Select Commodity Index portion of the benchmark was the DJ-UBS Commodity Total Return Index.

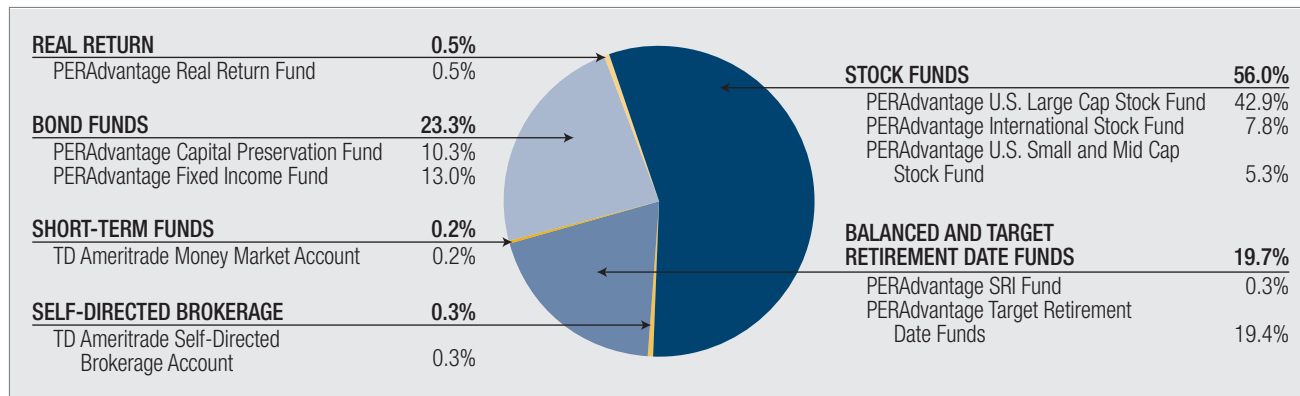
## Voluntary Investment Program Investment Summary

(In Thousands of Dollars)

	FAIR VALUE DECEMBER 31, 2012	PERCENT OF TOTAL FAIR VALUE 2012
PERAdvantage Capital Preservation Fund	\$210,593	10.3%
PERAdvantage Fixed Income Fund	265,174	13.0%
PERAdvantage Real Return Fund	11,032	0.5%
PERAdvantage U.S. Large Cap Stock Fund	874,724	42.9%
PERAdvantage International Stock Fund	160,187	7.8%
PERAdvantage U.S. Small and Mid Cap Stock Fund	108,828	5.3%
PERAdvantage SRI Fund	6,630	0.3%
PERAdvantage Income Fund	59,164	2.9%
PERAdvantage 2015 Fund	68,750	3.4%
PERAdvantage 2020 Fund	76,015	3.7%
PERAdvantage 2025 Fund	63,577	3.1%
PERAdvantage 2030 Fund	46,455	2.4%
PERAdvantage 2035 Fund	39,610	1.9%
PERAdvantage 2040 Fund	22,911	1.1%
PERAdvantage 2045 Fund	11,610	0.6%
PERAdvantage 2050 Fund	4,683	0.2%
PERAdvantage 2055 Fund	2,425	0.1%
TD Ameritrade Money Market Account	3,355	0.2%
TD Ameritrade Self-Directed Brokerage Account	5,417	0.3%

## Asset Allocation for Voluntary Investment Program (PERAPlus 401(k) Plan)

As of December 31, 2012



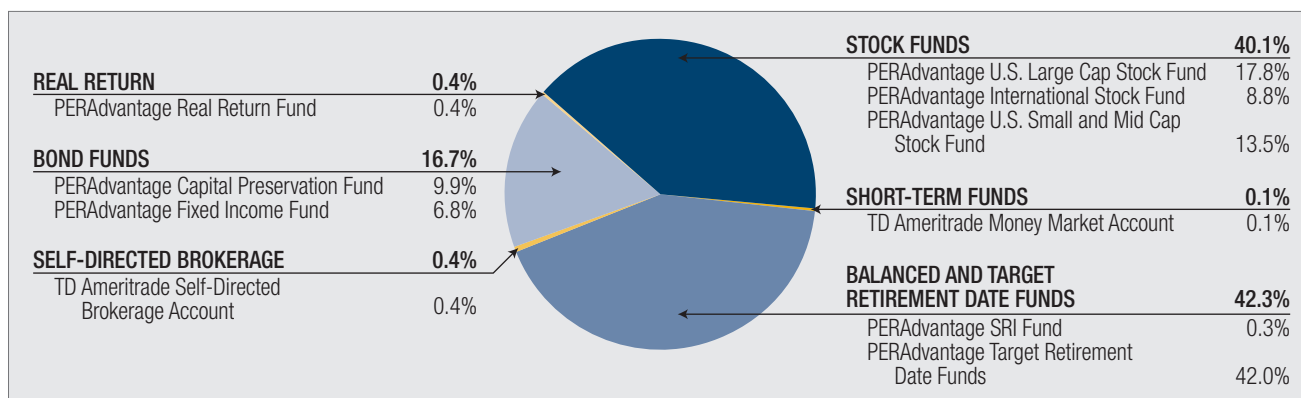
## Defined Contribution Retirement Plan Investment Summary

(In Thousands of Dollars)

	FAIR VALUE DECEMBER 31, 2012	PERCENT OF TOTAL FAIR VALUE 2012
PERAdvantage Capital Preservation Fund	\$8,171	9.9%
PERAdvantage Fixed Income Fund	5,617	6.8%
PERAdvantage Real Return Fund	345	0.4%
PERAdvantage U.S. Large Cap Stock Fund	14,627	17.8%
PERAdvantage International Stock Fund	7,193	8.8%
PERAdvantage U.S. Small and Mid Cap Stock Fund	11,121	13.5%
PERAdvantage SRI Fund	249	0.3%
PERAdvantage Income Fund	1,414	1.7%
PERAdvantage 2015 Fund	2,923	3.6%
PERAdvantage 2020 Fund	2,797	3.4%
PERAdvantage 2025 Fund	3,056	3.7%
PERAdvantage 2030 Fund	3,843	4.7%
PERAdvantage 2035 Fund	4,112	5.0%
PERAdvantage 2040 Fund	4,620	5.6%
PERAdvantage 2045 Fund	6,485	7.9%
PERAdvantage 2050 Fund	4,561	5.5%
PERAdvantage 2055 Fund	727	0.9%
TD Ameritrade Money Market Account	83	0.1%
TD Ameritrade Self-Directed Brokerage Account	355	0.4%

## Asset Allocation for Defined Contribution Retirement Plan (DC Plan)

As of December 31, 2012



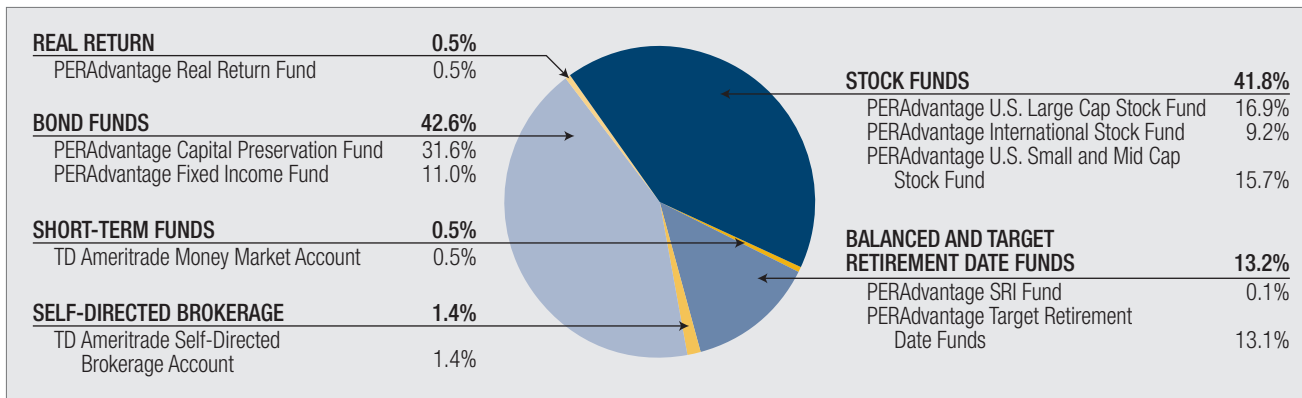
## Deferred Compensation Plan Investment Summary

(In Thousands of Dollars)

	FAIR VALUE DECEMBER 31, 2012	PERCENT OF TOTAL FAIR VALUE 2012
PERAdvantage Capital Preservation Fund	\$168,051	31.6%
PERAdvantage Fixed Income Fund	58,511	11.0%
PERAdvantage Real Return Fund	2,844	0.5%
PERAdvantage U.S. Large Cap Stock Fund	90,221	16.9%
PERAdvantage International Stock Fund	48,947	9.2%
PERAdvantage U.S. Small and Mid Cap Stock Fund	83,511	15.7%
PERAdvantage SRI Fund	633	0.1%
PERAdvantage Income Fund	10,619	2.0%
PERAdvantage 2015 Fund	12,035	2.3%
PERAdvantage 2020 Fund	12,741	2.4%
PERAdvantage 2025 Fund	11,803	2.2%
PERAdvantage 2030 Fund	8,454	1.6%
PERAdvantage 2035 Fund	7,200	1.4%
PERAdvantage 2040 Fund	3,819	0.7%
PERAdvantage 2045 Fund	1,602	0.3%
PERAdvantage 2050 Fund	608	0.1%
PERAdvantage 2055 Fund	795	0.1%
TD Ameritrade Money Market Account	2,569	0.5%
TD Ameritrade Self-Directed Brokerage Account	7,467	1.4%

## Asset Allocation for Deferred Compensation Plan (PERAPlus 457 Plan)

As of December 31, 2012



## Actuarial Section



*Leadership • Collaboration • Excellence*







**Cavanaugh Macdonald**  
 CONSULTING, LLC  
*The experience and dedication you deserve*

June 14, 2013

Board of Trustees  
 Public Employees' Retirement Association of Colorado  
 1301 Pennsylvania Street  
 Denver, CO 80203-5001

**RE: ACTUARIAL CERTIFICATION OF DEFINED BENEFIT PLANS AND HEALTH CARE TRUST FUNDS**

Dear Members of the Board:

Colorado PERA's basic financial goal is to establish contributions which, as a percentage of payroll, remain level for each generation of active members. Annual actuarial valuations measure the progress toward this goal, as well as test the adequacy of the contribution rates.

The most recent valuations are based on the plan provisions and assumptions in effect on December 31, 2012. In completing the valuation of these systems, Cavanaugh Macdonald Consulting, LLC (CMC) relied on membership and financial data provided by Colorado PERA. We have reviewed this data for reasonableness, and made some general edit checks to impute certain information that may not have been provided with the original employee data. We have not audited this data, but we have reconciled the data used in the prior year's valuation with this current valuation data.

The 2012 valuation results reflect assumption changes which were recommended to and adopted by the board as of November 2012, to be effective with the December 31, 2012 actuarial valuation. The assumptions were revised as a result of an experience analysis encompassing the prior four years of plan experience, 2008 through 2011, inclusive. The changes include:

- The price inflation assumption was lowered from 3.75% to 3.50%.
- The wage inflation assumption was lowered from 4.50% to 4.25%.
- The rates of retirement, withdrawal, mortality and disability have been revised to more closely reflect actual experience.
- The investment rate of return assumption is now net of investment expenses only, not all expenses, to better represent investment consultant assumptions and predictions and also to better align with recent changes in GASB accounting and reporting requirements. An estimated administrative expense level of 0.35% of payroll for the December 31, 2012 valuation is added to the normal cost for all pension divisions.

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## Actuary's Certification Letter

Board of Trustees  
Public Employees' Retirement Association of Colorado  
June 14, 2013  
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- The rates of participation in PERACare for current participants of PERA Divisions and the DPS Division, future participants of the PERA Divisions and the DPS Division, and DPS Division deferred vested members have been revised to more closely reflect actual experience.
- The percentage of PERACare enrollees who will become age 65 and older and are assumed to not qualify for premium-free Medicare Part A coverage have been revised to more closely reflect actual experience.
- The average age difference between covered male and female spouses has been updated to reflect actual experience.
- Initial per capita health care costs for PERACare enrollees under the PERA structure who are age 65 and older and are not eligible for premium-free Medicare Part A benefits have been updated to reflect the change in costs for the 2013 plan year.
- The initial per capita payments estimated to be made by the Centers for Medicare & Medicaid Services (CMS) under the Retiree Drug Subsidy Program (RDS) have been updated based upon the most recent attestation of actuarial equivalence.
- The assumed rates of inflation for health care costs for Medicare Part A premiums and RDS payments have been revised to reflect the current expectation of future increases.
- The last year in which the prescription drug benefit provided to those members eligible for Medicare Part D is deemed to be Actuarially Equivalent has been increased to 2023.

In our opinion, the assumptions are internally consistent and produce results which are reasonable in the aggregate. We also believe the assumptions and actuarial methods meet the requirements of Governmental Accounting Standards Board (GASB) Statements No. 25 and No. 43.

CMC updated the following schedules for the December 31, 2012, CAFR:

### FINANCIAL SECTION

- Yearly ARC Deficiency
- Net Pension Obligation / Net OPEB Obligation for all Funds
- Average Monthly Benefit
- Actuarial Statistics
- Funded Ratio, Unfunded Actuarial Accrued Liability and Annual Required Contributions for all Funds using 6.5%, 7.5%, 8.0%, 8.5% and 9.5% investment assumptions
- Current Year Actuarial Gains / (Losses)
- Funded Ratios
- Defined Benefit Pension Trust Funds Changes in Unfunded Actuarial Accrued Liabilities
- Required Supplementary Information - Schedule of Funding Progress
- Required Supplementary Information - Schedule of Employer Contributions and Other Contributing Entities
- Notes to Required Supplementary Information

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 Public Employees' Retirement Association of Colorado  
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#### ACTUARIAL SECTION

- Schedule of Retirees and Beneficiaries Added to and Removed from the Benefit Payroll
- Member – Retiree Comparison – All Division Trust Funds
- Schedule of Members in Valuation
- Solvency Test
- Unfunded Actuarial Accrued Liabilities (UAAL) – All Division Trust Funds
- Schedule of Gains and Losses in Accrued Liabilities - All Division Trust Funds
- Schedule of Computed Employer Contribution Rates for Fiscal Years Beginning in 2014
- Schedule of Active Member Valuation Data

#### STATISTICAL SECTION

- Member and Benefit Recipient Statistics
- Schedule of Average Retirement Benefits Payable
- Colorado PERA Benefit Payments - All Division Trust Funds
- Benefit Payments by Decile
- Current Average Monthly Benefit by Year of Retirement
- Schedule of Retirees and Survivors by Types of Benefits
- Schedule of Average Benefit Payments

Colorado PERA pension divisions have a funded ratio of 63% based on the Actuarial Value of Assets and 64% based on the Market Value of Assets. For the health care trust funds combined, the funded ratios are 17% on both an actuarial value and market value of assets.

The employer contribution rate, together with Medicare Part D Retiree Drug Subsidy receipts and anticipated future employee growth and service purchase transfers, is sufficient to eventually finance the PERA Health Care Trust Fund and the DPS Health Care Trust Fund benefits in accordance with GASB 43 and 45.

The Local Government Division employer contribution rates are sufficient to finance the promised benefits under GASB 25 and 27. Considering the addition of the Amortization Equalization Disbursement (AED) and Supplemental Amortization Equalization Disbursement (SAED) contributions as a percentage of payroll and projected reductions in liability due to benefit structure changes for new hires, the State and School Divisions' employer contribution rates are expected to be sufficient to finance the promised benefits and eventually meet the required contribution levels under GASB 25 and 27. Considering the addition of the AED and SAED contributions and the offsets of Pension Certificates of Participation (PCOP) credits as a percentage of payroll, the Denver Public Schools Division employer contribution rate is currently sufficient to finance the promised benefits and eventually meet the required contribution levels under GASB 25 and 27. The total employer contributions, combined with projected reductions in liability due to benefit structure changes for newer hires, are expected to fund the Judicial Division.

It should be noted that the changes made to the PERA structure as a result of SB 10-001 had as a goal 100% funding of the accrued liability within 30 years for all divisions. The results of the December 31, 2012, valuations combined with financial projections of all divisions indicate that this goal, which is a much stronger position than required to meet current GASB standards, is still achievable with the

Actuary's Certification Letter



Board of Trustees  
 Public Employees' Retirement Association of Colorado  
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exception of the Judicial Division. The Judicial Division is now projected to take a longer period to reach full-funding, absent favorable actuarial experience in the future. It must be noted that projections provide trends in financial measurements, not absolute results. Based on the expected actuarial experience, the trends for all divisions are positive.

We certify that this valuation was performed in accordance with standards of practice and by qualified actuaries as prescribed by the American Academy of Actuaries and the Actuarial Standards Board. The undersigned are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. All of the consultants listed below have experience in performing valuations for large statewide public retirement systems.

Sincerely,

Thomas J. Cavanaugh, FSA, FCA, EA, MAAA  
 Chief Executive Officer

Edward J. Koebel, EA, FCA, MAAA  
 Principal and Consulting Actuary

Eric H. Gary, FSA, FCA, MAAA  
 Chief Health Actuary

TJC/EJK/EHG:kc

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## Actuarial Methods and Assumptions—Defined Benefit Pension Plan

### Actuarial Methods

The Colorado PERA Board of Trustees (Board) is responsible for the actuarial methods and assumptions used in actuarial valuations in accordance with C.R.S. § 24-51-204(5). The Board retains an external actuary, currently Cavanaugh Macdonald Consulting, LLC, to perform annual actuarial valuations and projections as well as periodic experience studies to review the actuarial assumptions and actual experience. The most recent experience study concluded in October 2012 with recommendations brought to the Board in November 2012. Although dependent on the professional expertise and advice of the actuary performing the periodic studies, the Board is ultimately responsible for the actuarial methods and assumptions used in annual valuations and funding projections. Through formal action, the Board updates, replaces, or adopts new methods and assumptions as is deemed necessary. In addition to annual valuations and periodic assumption reviews, the Board established the practice of conducting actuarial audits every three to five years; the last one performed by Buck Consultants during 2009.

The ultimate cost that a defined benefit retirement plan, such as PERA, incurs is equal to the benefits paid plus expenses. Contributions to the plan and investment earnings on the assets of the plan pay for the ultimate cost.

Using the plan's schedule of benefits, the member data, and the carefully selected actuarial assumptions, the plan's actuary annually estimates the cost of the benefits to be paid. Using a particular actuarial funding method, the actuary allocates these costs and determines a systematic manner to fund future plan benefits. For PERA (as well as most public sector plans), the objective is to fund the plan in a manner that keeps contribution rates approximately level from generation to generation. The funding method best designed to keep annual costs level as a percent of covered payroll is the Entry Age Normal Cost Method, described in greater detail below.

#### *Entry Age Normal Cost Method*

Under the Entry Age Normal Cost Method, early and service retirement, termination (including the possibility of refunds), disability, and death benefits are projected for all active members. Cost factors, which are developed to produce level annual costs in each year from the age at hire (entry age) to the assumed retirement age, are applied to the projected benefits to determine the normal cost. The normal cost is the portion of the total cost of the plan allocated to the current year. Normal cost is determined only for active members currently accruing benefits; those in receipt of benefits, terminated or beyond assumed retirement age have no allocated normal cost. The actuarial accrued liability for active members is the portion of the total cost of the plan allocated to prior years.

The total actuarial accrued liability for the plan includes the actuarial accrued liability for active members, the present value of the expected benefit payments to members currently receiving benefits, and inactive members entitled to future benefits.

The effect of differences between the actuarial assumptions and the actual experience of the plan is calculated each year when the annual actuarial valuation is performed. These differences produce actuarial

gains or losses that result in an adjustment of the unfunded actuarial accrued liability (UAAL).

The excess of the total actuarial accrued liability over the actuarial value of plan assets is the unfunded actuarial accrued liability. The required employer contribution, under the Entry Age Normal Cost Method, is determined by adding the normal cost and the cost to amortize the unfunded actuarial accrued liability. The required employer contribution is then expressed as a level percentage of assumed future covered payrolls.

#### *Asset Valuation Method*

In 1992, the Board adopted a method for valuing assets that recognizes a smoothed market value of assets. The smoothed market value of assets recognizes the differences between actual and expected investment experience for each year in equal amounts over a four-year period. The smoothed market value of assets excludes the Annual Increase Reserve.

### Actuarial Assumptions

The determination of the actuarial accrued liability includes recognition of a number of economic and non-economic assumptions in addition to the applied actuarial methods described above.

#### *Economic Assumptions*

In November 2012, the Board voted to maintain the investment rate of return assumption at 8.0 percent per year, compounded annually, net of investment expenses. Previously, the investment rate of return assumption was net of investment and administrative expenses. This modification was made in recognition of recent Governmental Accounting Standards Board (GASB) changes effective for PERA no later than the 2014 fiscal year.

Each year for the past three years, the Board has participated in an actuarial assumption workshop to ensure understanding and to provide for the adoption of all economic assumptions under the guidance provided by Actuarial Standard of Practice (ASOP) No. 27, *Selection of Economic Assumptions for Measuring Pension Obligations*, as prescribed by the Actuarial Standards Board. During the workshop in November 2012, the Board received a number of presentations given by the retained actuary, Cavanaugh Macdonald, the investment consultant, Hewitt EnnisKnupp, and an external actuarial firm, Buck Consultants, as well as reviewed a variety of current and projected economic and financial information prior to the meeting.

During this workshop, Cavanaugh Macdonald reported the results of their lognormal simulation modeling. Considering historical investment and economic data with projected inflation and asset class returns, the modeling process provides a best-estimate range of future investment returns over a 50-year period given PERA's targeted asset allocation and expected investment expenses. These ranges are used to produce assumptions regarding future inflation, productivity, and real rates of return for asset classes above inflation. Using the "Building Block Method," the assumed inflation rate is combined with the assumed real rate of return, net of investment expenses, to form the overall investment rate assumption. In addition, Buck Consultants' representatives reported on the results from their General Economy and Market Simulator (GEMS), a Conning & Company economic scenario

## Actuarial Methods and Assumptions—Defined Benefit Pension Plan

generator modeling system through a macroeconomic approach to determine an appropriate and viable investment return assumption. The GEMS approach supported the 8.0 percent investment rate of return assumption recommended by Cavanaugh Macdonald.

Other underlying economic assumptions changed effective for the December 31, 2012, actuarial valuation, as follows: the inflation assumption is 3.50 percent per year, the real rate of return assumption is 4.50 percent per year and the overall annual member payroll increase is 4.25 percent. Exhibits A, B, C, and E show sample pay increase assumptions for individual members in 2012. The State Legislature determines pay increases for the Judicial Division, listed in Exhibit D.

Annually, the Board reviews the rate at which interest is credited to member accounts. The Board originally adopted the general policy regarding the annual review during 2006, with slight revisions to the policy details since adoption. In November 2012, the Board voted to continue the annual interest rate at 3.0 percent for interest earned during 2013.

### ***Non-Economic Assumptions***

ASOP No. 35, *Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations*, is followed for the selection and adoption of appropriate demographic assumptions. As a result of the most recent experience analysis, the withdrawal rates, pre- and post-retirement mortality rates, disability rates, and retirement rates for all divisions, were revised in 2012 to more closely reflect PERA's actual experience.

The probabilities of withdrawal from service (rates for ultimate period), death-in-service, and disability are shown for sample ages in Exhibits A, B, C, D, and E. Exhibit F shows the select rates of withdrawal applicable to certain members in the first four years of employment (rates for the select period). The probabilities of age and service retirements for all divisions are shown in Exhibits G and H.

The results of the 2012 experience analysis supported the current assumption, last revised in 2009, for the State, School, and Local Government Divisions that 35 percent of the vested members who terminate will elect to withdraw their accounts while the remaining 65 percent will elect to leave their accounts in the plan to be eligible for a benefit at their retirement date. As a result, the actuary did not recommend adjustments to this assumption for these three divisions. However, based on findings of the experience analysis, the actuary recommended adoption of the same assumption for members in the DPS benefit structure. The assumption for the Judicial Division also was retained, which assumes that 100 percent of vested members who terminate elect to leave their contributions in the plan in order to be eligible for a benefit at their retirement date.

As a result of the 2012 experience analysis, Cavanaugh Macdonald recommended a change to a more recently published mortality table to provide PERA with a reasonable margin for improved mortality in the future. Therefore, regarding healthy mortality for both pre- and post-retirement, the Board approved the change:

- From the 1994 Group Annuity Mortality Table set back three years for males and set back two years for females.

- To the RP-2000 Combined Mortality Table projected with Scale AA to 2020, set back one year for males and set back two years for females.

The pre-retirement healthy mortality rates incorporate a 55 percent factor applied to male rates and 40 percent to female rates. Regarding mortality after disability retirement, the current table, RP-2000 Disability Mortality Table proved sufficient, but the adjustments were changed to a set back of two years for both males and females.

The recently revised mortality assumptions appropriately reflect PERA's recent and anticipated plan experience and are used to estimate the value of expected future benefit payments. Exhibits A, B, C, D, and E list the healthy pre-retirement mortality rates at sample ages and Exhibit I lists all the healthy post-retirement mortality rates and values at sample ages.

### ***Annual Increase Assumptions***

For PERA benefit structure members hired prior to January 1, 2007, and DPS benefit structure members, it is assumed that retirement, disability, and survivor benefits increase at a rate of 2.0 percent per year after payments begin and eligibility requirements for payment of the annual increase have been met. This assumption was adopted as of the December 31, 2009, actuarial valuation in recognition of changes made to the annual increase by Senate Bill 10-001.

For members in the PERA benefit structure hired on or after January 1, 2007, an Annual Increase Reserve (AIR) was established to provide increases once benefits become payable for these members. One percent of the current employer contributions submitted for these members and a certain percentage of reinstatement of service purchase dollars are transferred into the AIR to fund the current and future increases related to the AIR provisions. Pursuant to C.R.S. §24-51-1009(4), the maximum annual increase that may be awarded by the Board equals the lesser of 2.0 percent or the average of the CPI-W for each of the months during the prior calendar year. The total amount of increases paid in any year cannot exceed 10.0 percent of the total funds available in the AIR in the division from which they retire or decess. Therefore, the actuarial assumption applied to these members assumes that benefits do not increase with respect to the annual assessment of actuarial liability associated with the Division Trust Funds, since they receive annual increases only to the extent affordable in accordance with C.R.S. § 24-51-1009. This assumption was adopted as of the December 31, 2007, actuarial valuation in recognition of annual increase provisions enacted in 2006.

Held within the trust and accounted for separately, the dollars within the AIR are excluded from the division trust assets for purposes of the annual actuarial valuation. The AIR is subject to a separate annual actuarial calculation to determine the extent of the payment, if any, of annual increases each year to eligible individuals.

## Actuarial Methods and Assumptions—Defined Benefit Pension Plan

### *Actuarial Studies*

Accumulated investment income is a significant contributor to the success of a defined benefit plan, often providing between 50 to 80 percent of the total inflows over the life of a plan. The financial market's major decline in 2008 prompted the Board to pursue additional actuarial studies over the last three years to annually evaluate the appropriateness of PERA's investment return assumption in concert with other pertinent economic assumptions.

Since the series of studies performed in 2009, which included an experience analysis performed by Cavanaugh Macdonald, an actuarial audit performed by Buck Consultants, and an asset/liability modeling study conducted by Hewitt EnnisKnupp, the Board requested another experience analysis covering plan experience for the four-year period from 2008 through 2011, to provide an updated view of all economic and demographic assumptions. Cavanaugh Macdonald completed the experience analysis in October 2012, for purposes of discussion at the actuarial assumption workshop and adoption of certain assumptions, where appropriate, at the November 2012 Board meeting. The recommended and adopted assumption changes are listed in the following section.

The Board periodically contracts an actuarial firm, independent of the retained actuary, to conduct an actuarial audit. The primary focus of the audit is to ensure independence, accuracy, and conformity with accepted actuarial standards of practice with regard to results of the annual actuarial valuation and the appropriateness of the actuarial assumptions used to calculate those results.

Pursuant to C.R.S. § 24-51-1010, passed into law in 2006, prior to any increase in benefits, the Legislature is responsible for contracting an actuary or actuarial firm to conduct an actuarial assessment of the impact of such increase. Since there has not been a proposed increase in benefits since the passage of this legislation, the legislature has not yet been required to contract for such a study.

### **Changes Since Last Valuation**

#### *Changes in Actuarial Methods*

There are no actuarial method changes reflected in the December 31, 2012, actuarial valuation since the last actuarial valuation as of December 31, 2011.

#### *Changes in Actuarial Assumptions*

Listed below are the actuarial assumption changes regarding the defined benefit pension plan adopted as of November 13, 2012, and incorporated into the December 31, 2012, actuarial valuation:

- Price inflation decreased from 3.75 percent per year to 3.50 percent per year.
- Real rate of investment return increased from 4.25 percent per year to 4.50 percent per year, but changed from net of investment and administrative expenses to net of investment expenses only.
- Wage inflation decreased from 4.50 percent per year to 4.25 percent per year.

- Withdrawal—Select Period
  - Minor changes were made to the withdrawal rates during select periods for State and School Divisions and also for members in the DPS benefit structure.
  - Increased rates of withdrawal for most years of service during select period for the Local Government Division, since there were more withdrawals than expected.
- Withdrawal—Ultimate Period
  - Lowered some or all withdrawal rates between ages 25 and 65 for both males and females of the State (including Troopers), School, and Judicial Divisions due to fewer withdrawals than expected.
  - Adjusted all rates for the Local Government Division and members in the DPS benefit structure, since there were more withdrawals than expected.
- Disability Retirement—lowered disability rates for all divisions, including members in the DPS benefit structure.
- Reduced and Unreduced Retirement
  - Decreased early reduced retirement rates and increased unreduced retirement rates for all divisions.
  - Decreased early reduced and unreduced retirement rates for members in the DPS benefit structure.
- Pre- and Post-Retirement Healthy Mortality—changed from the 1994 Group Annuity Mortality Table set back three years for males and set back two years for females to the RP-2000 Combined Mortality Table projected with Scale AA to 2020, set back one year for males and set back two years for females. The pre-retirement healthy mortality rates incorporate a 55 percent factor applied to male rates and 40 percent to female rates.
- Post-Retirement Disability Mortality—RP-2000 Disability Mortality Table was retained, but the adjustments were changed to a set back of two years for both males and females.
- Vested Members Who Separate and Elect a Refund—changed this assumption for members in the DPS benefit structure to be the same as the State, School, and Local Government Divisions.

#### *Changes in Plan Provisions*

There are no changes in plan provisions reflected in the December 31, 2012, actuarial valuation since the last actuarial valuation as of December 31, 2011.

## Actuarial Methods and Assumptions—Defined Benefit Pension Plan

### Exhibit A: Separations from Employment Before Retirement and Individual Pay Increase Assumptions—State Division

SAMPLE AGES	PERCENT OF MEMBERS SEPARATING WITHIN THE NEXT YEAR						PAY INCREASE ASSUMPTIONS FOR AN INDIVIDUAL MEMBER		
	ULTIMATE WITHDRAWAL <sup>1</sup>		DEATH <sup>2</sup>		DISABILITY		MERIT AND SENIORITY	INFLATION AND PRODUCTIVITY	TOTAL INCREASE (NEXT YEAR)
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE			
<i>State Members (Other Than State Troopers)</i>									
20	21.00%	18.00%	0.012%	0.005%	0.01%	0.01%	5.67%	4.25%	9.92%
25	9.00%	14.00%	0.017%	0.006%	0.01%	0.01%	3.75%	4.25%	8.00%
30	6.00%	9.00%	0.021%	0.008%	0.02%	0.02%	2.80%	4.25%	7.05%
35	5.50%	7.00%	0.035%	0.013%	0.03%	0.03%	2.05%	4.25%	6.30%
40	4.50%	5.75%	0.048%	0.018%	0.06%	0.06%	1.50%	4.25%	5.75%
45	4.00%	5.00%	0.059%	0.027%	0.10%	0.10%	0.85%	4.25%	5.10%
50	4.00%	5.00%	0.076%	0.041%	0.17%	0.17%	0.50%	4.25%	4.75%
55	4.00%	5.00%	0.120%	0.075%	0.25%	0.25%	0.10%	4.25%	4.35%
60	4.00%	5.00%	0.237%	0.142%	0.35%	0.35%	0.00%	4.25%	4.25%
65	4.00%	5.00%	0.468%	0.277%	0.45%	0.45%	0.00%	4.25%	4.25%
<i>State Troopers</i>									
20	10.00%	10.00%	0.012%	0.005%	0.02%	0.02%	5.50%	4.25%	9.75%
25	8.00%	8.00%	0.017%	0.006%	0.04%	0.04%	3.75%	4.25%	8.00%
30	4.25%	4.25%	0.021%	0.008%	0.06%	0.06%	2.80%	4.25%	7.05%
35	3.75%	3.75%	0.035%	0.013%	0.10%	0.10%	2.05%	4.25%	6.30%
40	3.50%	3.50%	0.048%	0.018%	0.18%	0.18%	1.50%	4.25%	5.75%
45	3.50%	3.50%	0.059%	0.027%	0.28%	0.28%	1.20%	4.25%	5.45%
50	3.50%	3.50%	0.076%	0.041%	0.40%	0.40%	0.80%	4.25%	5.05%
55	3.50%	3.50%	0.120%	0.075%	0.56%	0.56%	0.40%	4.25%	4.65%
60	3.50%	3.50%	0.237%	0.142%	0.80%	0.80%	0.00%	4.25%	4.25%
65	3.50%	3.50%	0.468%	0.277%	1.20%	1.20%	0.00%	4.25%	4.25%

<sup>1</sup> There are no select withdrawal assumptions for State Troopers.

<sup>2</sup> Rates are shown for healthy members. Separate disability mortality tables are used for disabled retirees.

### Exhibit B: Separations from Employment Before Retirement and Individual Pay Increase Assumptions—School Division and Denver Public Schools (DPS) Division—PERA Benefit Structure<sup>1</sup>

SAMPLE AGES	PERCENT OF MEMBERS SEPARATING WITHIN THE NEXT YEAR						PAY INCREASE ASSUMPTIONS FOR AN INDIVIDUAL MEMBER		
	ULTIMATE WITHDRAWAL		DEATH <sup>2</sup>		DISABILITY		MERIT AND SENIORITY	INFLATION AND PRODUCTIVITY	TOTAL INCREASE (NEXT YEAR)
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE			
20	12.00%	14.50%	0.012%	0.005%	0.01%	0.01%	6.20%	4.25%	10.45%
25	9.00%	11.00%	0.017%	0.006%	0.01%	0.01%	4.10%	4.25%	8.35%
30	5.50%	7.50%	0.021%	0.008%	0.01%	0.01%	2.95%	4.25%	7.20%
35	4.25%	6.25%	0.035%	0.013%	0.02%	0.02%	2.50%	4.25%	6.75%
40	4.00%	4.50%	0.048%	0.018%	0.04%	0.04%	1.95%	4.25%	6.20%
45	4.00%	4.50%	0.059%	0.027%	0.06%	0.06%	1.35%	4.25%	5.60%
50	4.00%	4.50%	0.076%	0.041%	0.09%	0.09%	0.80%	4.25%	5.05%
55	4.00%	4.50%	0.120%	0.075%	0.15%	0.15%	0.35%	4.25%	4.60%
60	4.00%	4.50%	0.237%	0.142%	0.22%	0.22%	0.00%	4.25%	4.25%
65	4.00%	4.50%	0.468%	0.277%	0.32%	0.32%	0.00%	4.25%	4.25%

<sup>1</sup> Rates shown are for PERA benefit structure members in the School or DPS Divisions.

<sup>2</sup> Rates are shown for healthy members. Separate disability mortality tables are used for disabled retirees.



## Actuarial Methods and Assumptions—Defined Benefit Pension Plan

### Exhibit C: Separations from Employment Before Retirement and Individual Pay Increase Assumptions— Local Government Division

SAMPLE AGES	PERCENT OF MEMBERS SEPARATING WITHIN THE NEXT YEAR						PAY INCREASE ASSUMPTIONS FOR AN INDIVIDUAL MEMBER		
	ULTIMATE WITHDRAWAL		DEATH <sup>1</sup>		DISABILITY		MERIT AND SENIORITY	INFLATION AND PRODUCTIVITY	TOTAL INCREASE (NEXT YEAR)
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE			
20	12.00%	20.00%	0.012%	0.005%	0.01%	0.01%	6.95%	4.25%	11.20%
25	10.00%	15.00%	0.017%	0.006%	0.01%	0.01%	4.30%	4.25%	8.55%
30	7.25%	11.00%	0.021%	0.008%	0.01%	0.01%	2.64%	4.25%	6.89%
35	5.50%	8.75%	0.035%	0.013%	0.02%	0.02%	1.72%	4.25%	5.97%
40	5.00%	6.25%	0.048%	0.018%	0.04%	0.04%	1.23%	4.25%	5.48%
45	4.50%	6.00%	0.059%	0.027%	0.08%	0.08%	0.99%	4.25%	5.24%
50	4.50%	6.00%	0.076%	0.041%	0.14%	0.14%	0.79%	4.25%	5.04%
55	4.50%	6.00%	0.120%	0.075%	0.18%	0.18%	0.60%	4.25%	4.85%
60	4.50%	6.00%	0.237%	0.142%	0.24%	0.24%	0.25%	4.25%	4.50%
65	4.50%	6.00%	0.468%	0.277%	0.30%	0.30%	0.00%	4.25%	4.25%

<sup>1</sup> Rates are shown for healthy members. Separate disability mortality tables are used for disabled retirees.

### Exhibit D: Separations from Employment Before Retirement and Individual Pay Increase Assumptions— Judicial Division

SAMPLE AGES	PERCENT OF MEMBERS SEPARATING WITHIN THE NEXT YEAR						PAY INCREASE ASSUMPTIONS FOR AN INDIVIDUAL MEMBER		
	ULTIMATE WITHDRAWAL <sup>1</sup>		DEATH <sup>2</sup>		DISABILITY		MERIT AND SENIORITY <sup>3</sup>	INFLATION AND PRODUCTIVITY	TOTAL INCREASE (NEXT YEAR)
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE			
30	1.80%	1.80%	0.021%	0.008%	0.02%	0.02%	1.50%	4.25%	5.75%
35	1.80%	1.80%	0.035%	0.013%	0.03%	0.03%	1.50%	4.25%	5.75%
40	1.80%	1.80%	0.048%	0.018%	0.06%	0.06%	0.67%	4.25%	4.92%
45	1.80%	1.80%	0.059%	0.027%	0.10%	0.10%	0.50%	4.25%	4.75%
50	1.80%	1.80%	0.076%	0.041%	0.17%	0.17%	0.50%	4.25%	4.75%
55	1.80%	1.80%	0.120%	0.075%	0.25%	0.25%	0.50%	4.25%	4.75%
60	1.80%	1.80%	0.237%	0.142%	0.35%	0.35%	0.50%	4.25%	4.75%
65	1.80%	1.80%	0.468%	0.277%	0.45%	0.45%	0.50%	4.25%	4.75%

<sup>1</sup> There are no select withdrawal assumptions for the Judicial Division.

<sup>2</sup> Rates are shown for healthy members. Separate disability mortality tables are used for disabled retirees.

<sup>3</sup> Pay raises are subject to legislative approval. Percentages shown are based on prior experience.

### Exhibit E: Separations from Employment Before Retirement and Individual Pay Increase Assumptions— All Division Trust Funds (DPS Benefit Structure)<sup>1</sup>

SAMPLE AGES	PERCENT OF MEMBERS SEPARATING WITHIN THE NEXT YEAR						PAY INCREASE ASSUMPTIONS FOR AN INDIVIDUAL MEMBER		
	ULTIMATE WITHDRAWAL		DEATH <sup>2</sup>		DISABILITY		MERIT AND SENIORITY	INFLATION AND PRODUCTIVITY	TOTAL INCREASE (NEXT YEAR)
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE			
20	7.00%	10.00%	0.012%	0.005%	0.01%	0.01%	3.50%	4.25%	7.75%
25	7.00%	10.00%	0.017%	0.006%	0.01%	0.01%	3.50%	4.25%	7.75%
30	6.00%	8.00%	0.021%	0.008%	0.01%	0.01%	3.20%	4.25%	7.45%
35	6.00%	7.00%	0.035%	0.013%	0.02%	0.02%	2.76%	4.25%	7.01%
40	4.50%	5.75%	0.048%	0.018%	0.05%	0.05%	2.12%	4.25%	6.37%
45	3.50%	4.25%	0.059%	0.027%	0.08%	0.08%	1.34%	4.25%	5.59%
50	3.50%	3.50%	0.076%	0.041%	0.12%	0.12%	0.80%	4.25%	5.05%
55	3.50%	3.50%	0.120%	0.075%	0.25%	0.25%	0.42%	4.25%	4.67%
60	3.50%	3.50%	0.237%	0.142%	0.40%	0.40%	0.20%	4.25%	4.45%
65	3.50%	3.50%	0.468%	0.277%	0.60%	0.60%	0.00%	4.25%	4.25%

<sup>1</sup> Rates shown are for DPS benefit structure members in any division.

<sup>2</sup> Rates are shown for healthy members. Separate disability mortality tables are used for disabled retirees.

## Actuarial Methods and Assumptions—Defined Benefit Pension Plan

### Exhibit F: Select Rates of Separation Assumptions— State, School and DPS Divisions, Local Government Division and DPS Benefit Structure

PERCENT OF MEMBERS WITH LESS THAN FIVE YEARS OF SERVICE WITHDRAWING FROM EMPLOYMENT NEXT YEAR<sup>1</sup>

COMPLETED YEARS OF SERVICE	STATE DIVISION		SCHOOL & DPS DIVISIONS <sup>2</sup>		LOCAL GOVERNMENT DIVISION		DPS BENEFIT STRUCTURE <sup>3</sup>	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
0	43.0%	43.0%	38.0%	35.0%	40.0%	38.0%	22.0%	23.0%
1	20.0%	21.0%	20.0%	19.0%	22.0%	22.0%	20.0%	20.0%
2	14.0%	15.0%	15.0%	14.5%	15.0%	17.0%	17.0%	16.0%
3	11.0%	12.0%	11.0%	11.5%	11.5%	13.0%	13.0%	12.0%
4	9.0%	11.0%	10.0%	10.0%	9.0%	11.0%	10.0%	9.0%

<sup>1</sup> There are no select withdrawal assumptions for State Troopers or Judicial Division members.

<sup>2</sup> Rates shown are for PERA benefit structure members in the School or DPS Divisions.

<sup>3</sup> Rates shown are for DPS benefit structure members in any division.

### Exhibit G: Percent of Members Eligible for Reduced Retirement Benefits Retiring Next Year

RETIREMENT AGES	STATE DIVISION		STATE TROOPERS	SCHOOL & DPS DIVISIONS <sup>1</sup>		LOCAL GOVERNMENT DIVISION		JUDICIAL DIVISION	DPS BENEFIT STRUCTURE <sup>2</sup>	
	MALE	FEMALE		MALE	FEMALE	MALE	FEMALE		MALE	FEMALE
50	10%	10%	14%	10%	10%	10%	12%	5%	10%	5%
51	10%	10%	14%	10%	10%	10%	12%	5%	10%	5%
52	10%	10%	14%	10%	10%	10%	12%	5%	10%	5%
53	10%	10%	14%	10%	10%	10%	12%	5%	10%	5%
54	10%	10%	14%	10%	10%	10%	12%	5%	10%	5%
55	10%	10%	10%	10%	10%	10%	12%	5%	10%	5%
56	10%	10%	10%	10%	10%	10%	12%	5%	10%	5%
57	10%	10%	10%	10%	10%	10%	12%	5%	10%	5%
58	10%	10%	10%	10%	10%	10%	12%	5%	11%	9%
59	10%	10%	10%	10%	10%	10%	12%	5%	12%	9%
60	10%	10%	10%	10%	10%	10%	12%	12%	13%	9%
61	10%	10%	10%	10%	10%	10%	12%	12%	14%	9%
62	10%	10%	10%	10%	10%	10%	12%	12%	15%	9%
63	10%	10%	10%	10%	10%	10%	12%	12%	15%	9%
64	10%	10%	10%	10%	10%	10%	12%	12%	15%	15%
65 and Over	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

<sup>1</sup> Rates shown are for PERA benefit structure members in the School or DPS Divisions.

<sup>2</sup> Rates shown are for DPS benefit structure members in any division.

## Actuarial Methods and Assumptions—Defined Benefit Pension Plan

Exhibit H: Percent of Members Eligible for Unreduced Retirement Benefits Retiring Next Year

RETIREMENT AGES	STATE DIVISION		STATE TROOPERS	SCHOOL & DPS DIVISIONS <sup>1</sup>		LOCAL GOVERNMENT DIVISION		JUDICIAL DIVISION	DPS BENEFIT STRUCTURE <sup>2</sup>	
	MALE	FEMALE		MALE	FEMALE	MALE	FEMALE		MALE	FEMALE
50	55%	50%	45%	55%	55%	60%	60%	5%	30%	30%
51	48%	40%	32%	46%	50%	45%	50%	5%	30%	30%
52	42%	38%	32%	44%	42%	35%	45%	5%	30%	30%
53	38%	30%	32%	42%	40%	32%	42%	5%	30%	30%
54	32%	30%	32%	40%	38%	30%	35%	5%	30%	30%
55	27%	30%	32%	28%	30%	30%	33%	5%	30%	25%
56	25%	24%	32%	26%	27%	25%	25%	5%	20%	25%
57	22%	22%	32%	25%	25%	25%	22%	5%	20%	20%
58	21%	22%	32%	26%	24%	20%	22%	5%	20%	20%
59	20%	22%	32%	26%	24%	20%	25%	5%	20%	20%
60	21%	22%	32%	26%	25%	25%	22%	12%	20%	22%
61	18%	18%	32%	28%	26%	25%	20%	12%	20%	30%
62	25%	25%	32%	25%	28%	22%	24%	12%	30%	25%
63	21%	22%	32%	25%	28%	22%	24%	12%	35%	25%
64	21%	22%	32%	27%	30%	28%	25%	12%	25%	25%
65	24%	22%	100%	27%	27%	28%	25%	12%	25%	30%
66	26%	28%	100%	28%	28%	28%	25%	12%	30%	25%
67	24%	24%	100%	23%	23%	18%	25%	12%	25%	30%
68	19%	20%	100%	19%	19%	25%	12%	12%	30%	30%
69	22%	22%	100%	20%	20%	27%	20%	12%	30%	20%
70 and Over	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

<sup>1</sup> Rates shown are for PERA benefit structure members in the School or DPS Divisions.

<sup>2</sup> Rates shown are for DPS benefit structure members in any division.

Exhibit I: Rates of Post-Retirement Mortality and Single Life Retirement Values

SAMPLE ATTAINED AGES	PERCENT OF RETIREES DECEASING WITHIN THE NEXT YEAR		PRESENT VALUE OF \$1 MONTHLY FOR LIFE		PRESENT VALUE OF \$1 MONTHLY INCREASING 2.0% ANNUALLY		FUTURE LIFE EXPECTANCY IN YEARS	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
40	0.087%	0.044%	\$147.87	\$149.38	\$188.34	\$191.40	43.24	46.22
45	0.108%	0.068%	144.65	146.50	182.01	185.65	38.43	41.34
50	0.139%	0.102%	140.12	142.50	173.81	178.25	33.65	36.49
55	0.218%	0.188%	133.78	137.02	163.25	168.87	28.91	31.71
60	0.431%	0.355%	125.41	129.85	150.27	157.40	24.30	27.07
65	0.851%	0.692%	114.98	120.84	135.06	143.84	19.94	22.65
70	1.464%	1.216%	102.67	110.23	118.06	128.69	15.92	18.56
75	2.557%	1.956%	87.93	97.82	98.88	111.87	12.20	14.80
80	4.738%	3.267%	71.61	83.65	78.77	93.66	8.95	11.39
85	8.670%	5.542%	55.65	68.04	59.97	74.61	6.32	8.40

## Summary of Funding Progress—Defined Benefit Pension Plan

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 covered payroll earned by PERA members. The information in this section provides an overview of funding progress:

- The solvency test, which shows (by division and in total) the degree to which existing liabilities are funded, including prior history.
- A schedule of the total UAAL, which also shows the UAAL as a percentage of annual valuation payroll, including prior history.
- Schedules detailing actuarial gains and losses, by source, including prior history.
- The scheduled contribution requirements for the year immediately following the reporting period, including any legislatively scheduled employer contribution increments, Amortization Equalization Disbursement (AED) and Supplemental Amortization Equalization Disbursement (SAED) in future years.

Consideration of the plans' current funded ratio, the unfunded liabilities in relation to annual covered payroll, historic trends, including significant gains and losses, and the schedule of future contributions should provide sufficient information to appropriately measure funding progress.

### Solvency Test

The solvency test is one means of checking PERA's funding progress. In this test, the retirement plan's valuation assets are compared with: (A) member contributions (with interest) on deposit, (B) the liabilities for future benefits to persons who have retired, died or become disabled, and to those who have terminated service with the right to a future benefit, and (C) 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 A) and the liabilities for future benefits to present retirees (liability B) are fully covered by present valuation assets, except in certain circumstances.

The actuarial valuation of December 31, 2012, shows that liability A is fully covered by PERA assets. In addition, the remainder of present valuation assets covers a large portion of the liabilities for future benefits to persons who have retired or terminated service with the right to a future benefit (liability B). Generally, if the system continues to use level contribution rate financing, the funded portion of liability B and C will increase over time.

### Solvency Test (In Actual Dollars)

VALUATION DATE	AGGREGATE ACCRUED LIABILITIES			VALUATION ASSETS	PORTION OF ACTUARIAL ACCRUED LIABILITIES COVERED BY VALUATION ASSETS		
	ACTIVE MEMBER CONTRIBUTIONS (A) <sup>1</sup>	RETIREES, BENEFICIARIES, AND INACTIVE MEMBERS (B)	EMPLOYER-FINANCED PORTION OF ACTIVE MEMBERS (C)		LIABILITY (A)	LIABILITY (B)	LIABILITY (C)
<i>State Division</i>							
12/31/2007	\$2,527,090,836	\$12,118,948,258	\$4,744,256,709	\$14,220,680,819	100.0%	96.5%	0.0%
12/31/2008	2,566,619,719	12,999,235,625	4,932,812,351	13,914,370,734	100.0%	87.3%	0.0%
12/31/2009	2,568,286,884	12,660,958,307	4,747,971,978	13,382,736,472	100.0%	85.4%	0.0%
12/31/2010	2,569,046,085	13,149,658,232	4,637,471,747	12,791,946,348	100.0%	77.7%	0.0%
12/31/2011	2,629,639,816	13,710,392,567	4,486,511,088	12,010,044,704	100.0%	68.4%	0.0%
12/31/2012	<b>2,668,942,433</b>	<b>14,191,468,725</b>	<b>4,331,083,967</b>	<b>12,538,675,449</b>	<b>100.0%</b>	<b>69.5%</b>	<b>0.0%</b>
<i>School Division</i>							
12/31/2007	\$3,596,453,446	\$18,039,390,005	\$7,605,584,217	\$22,070,769,075	100.0%	100.0%	5.7%
12/31/2008	3,695,995,206	19,416,005,775	7,888,200,829	21,733,328,531	100.0%	92.9%	0.0%
12/31/2009	3,769,099,659	18,830,712,228	7,813,003,514	21,054,909,740	100.0%	91.8%	0.0%
12/31/2010	3,779,759,908	19,658,748,616	7,901,245,967	20,321,736,466	100.0%	84.1%	0.0%
12/31/2011	3,783,336,053	20,666,020,619	7,536,842,363	19,266,110,172	100.0%	74.9%	0.0%
12/31/2012	<b>3,823,347,689</b>	<b>21,466,077,782</b>	<b>7,329,607,677</b>	<b>20,266,573,925</b>	<b>100.0%</b>	<b>76.6%</b>	<b>0.0%</b>
<i>Local Government Division</i>							
12/31/2007	\$661,271,632	\$1,707,349,175	\$1,194,578,196	\$2,892,846,938	100.0%	100.0%	43.9%
12/31/2008	675,173,652	1,949,108,011	1,213,801,584	2,933,295,754	100.0%	100.0%	25.5%
12/31/2009	678,518,930	1,963,924,503	1,208,377,203	2,932,628,241	100.0%	100.0%	24.0%
12/31/2010	657,846,613	2,180,451,070	1,167,268,443	2,926,045,102	100.0%	100.0%	7.5%
12/31/2011	666,794,291	2,330,542,885	1,162,677,597	2,882,691,014	100.0%	95.1%	0.0%
12/31/2012	<b>528,029,133</b>	<b>2,750,955,523</b>	<b>878,635,882</b>	<b>3,098,721,347</b>	<b>100.0%</b>	<b>93.4%</b>	<b>0.0%</b>

<sup>1</sup> Includes accrued interest on member contributions.

## Summary of Funding Progress—Defined Benefit Pension Plan

### Solvency Test (continued)

(In Actual Dollars)

VALUATION DATE	AGGREGATE ACCRUED LIABILITIES			VALUATION ASSETS	PORTION OF ACTUARIAL ACCRUED LIABILITIES COVERED BY VALUATION ASSETS		
	ACTIVE MEMBER CONTRIBUTIONS (A) <sup>1</sup>	RETIREES, BENEFICIARIES, AND INACTIVE MEMBERS (B)	EMPLOYER-FINANCED PORTION OF ACTIVE MEMBERS (C)		LIABILITY (A)	LIABILITY (B)	LIABILITY (C)
<i>Judicial Division</i>							
12/31/2007	\$49,444,895	\$152,072,819	\$62,692,783	\$231,228,304	100.0%	100.0%	47.4%
12/31/2008	54,593,439	160,475,062	72,989,931	230,967,047	100.0%	100.0%	21.8%
12/31/2009	52,754,332	165,904,221	77,037,132	228,713,654	100.0%	100.0%	13.1%
12/31/2010	53,742,058	171,903,999	78,193,140	227,813,622	100.0%	100.0%	2.8%
12/31/2011	54,688,241	186,420,121	78,328,888	221,514,844	100.0%	89.5%	0.0%
12/31/2012	57,762,144	193,773,713	75,361,285	238,806,614	100.0%	93.4%	0.0%
<i>Denver Public Schools Division<sup>2</sup></i>							
12/31/2010	\$317,442,198	\$2,370,216,811	\$645,155,436	\$2,961,719,943	100.0%	100.0%	42.5%
12/31/2011	333,550,047	2,435,504,442	673,472,523	2,804,705,933	100.0%	100.0%	5.3%
12/31/2012	348,739,324	2,479,706,314	667,103,674	2,936,695,129	100.0%	100.0%	16.2%
<i>All Division Trust Funds<sup>3</sup></i>							
12/31/2007	\$6,834,260,809	\$32,017,760,257	\$13,607,111,905	\$39,415,525,136	100.0%	100.0%	4.1%
12/31/2008	6,992,382,016	34,524,824,473	14,107,804,695	38,811,962,066	100.0%	92.2%	0.0%
12/31/2009	7,068,659,805	33,621,499,259	13,846,389,827	37,598,988,107	100.0%	90.8%	0.0%
12/31/2010	7,377,836,862	37,530,978,728	14,429,334,733	39,229,261,481	100.0%	84.9%	0.0%
12/31/2011	7,468,008,448	39,328,880,634	13,937,832,459	37,185,066,667	100.0%	75.6%	0.0%
12/31/2012	7,426,820,723	41,081,982,057	13,281,792,485	39,079,472,464	100.0%	77.0%	0.0%

<sup>1</sup> Includes accrued interest on member contributions.

<sup>2</sup> The DPS Division Trust Fund was established on January 1, 2010, and received the net assets of DPSRS.

<sup>3</sup> Results prior to December 31, 2010, do not include the DPS Division.

## Summary of Funding Progress—Defined Benefit Pension Plan

### Unfunded Actuarial Accrued Liability

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

In 2011, the ratio of PERA's valuation assets to accrued liabilities was 61.2 percent but by the end of 2012, increased slightly to 63.1 percent.

The increase (or gains) in the 2012 funded status over 2011 is attributable mainly to the following factors:

- Recognition of investment gains experienced in 2009, 2010, and 2012.
- Member pay increases were lower than expected.
- More members terminated PERA-covered employment and withdrew their accounts than expected during 2012, decreasing future liabilities.
- Fewer service and disability retirements were experienced than expected.

The following factors resulted in higher liabilities (or losses) to PERA during 2012:

- Recognition of investment losses experienced in 2011.
- Higher number of survivor benefits were granted than anticipated.
- New PERA members had some service resulting in accrued liabilities.

Since 2000, PERA's funded ratio has declined from a high of 105.2 percent to the current funded status of 63.1 percent at the end of 2012. In response to the declining funded ratio, legislation was enacted in 2004 and 2006, with the specific purpose of strengthening PERA's future funded status. Among other cost-saving measures, the AED and the SAED were created and implemented. The recent global financial

crisis further necessitated enactment of a major pension reform bill, Senate Bill (SB) 10-001, signed into law on February 23, 2010. This bill took significant measures affecting benefit and eligibility provisions, the payment structure of annual increases, and employer funding mechanisms with the intent to return PERA to a 100 percent funded ratio within the next 30 years.

Benefits to retirees are funded at 77.0 percent, that is, assets reserved for benefits currently being paid are less than the liabilities for those benefits. Liabilities for members are based on service rendered toward their retirement benefits 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.

Since inflation decreases the dollar's value, it is important to examine more than simply the dollar amounts of assets, benefits paid, member salaries, and unfunded actuarial accrued liabilities when assessing the plan's financial status. The ratio of unfunded actuarial accrued liability dollars divided by member salary dollars can provide a meaningful index. The lower the ratio, the greater is the strength of 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 decreased at times over the last decade, but increased sharply in years 2002 through 2004. This increase reflects the poor investment environment of 2001 and 2002, as well as increased liabilities. The UAAL as a percent of member salaries declined from 2005 through 2007, which is evidence of a moderation in PERA's liabilities and recognition of investment gains and additional funding measures implemented during this period. The significant increase in this ratio for the periods 2008 through 2011 was primarily a result of the four-year smoothing of the large investment loss from 2008. The slight decrease in this ratio for 2012 is a direct reflection of the favorable demographic and economic experience during the year.

Unfunded Actuarial Accrued Liabilities (UAAL)—All Division Trust Funds<sup>1,2</sup>  
(In Actual Dollars)

(A) VALUATION DATE	(B) ACTUARIAL VALUE OF PLAN ASSETS	(C) TOTAL ACTUARIAL ACCRUED LIABILITIES	(D) UNFUNDED ACTUARIAL ACCRUED LIABILITIES (C) – (B)	(E) FUNDED RATIO (B)/(C)	(F) ANNUAL COVERED PAYROLL	(G) UAAL AS A % OF COVERED PAYROLL (D)/(F)
12/31/2007	\$39,415,525,136	\$52,459,132,971	\$13,043,607,835	75.1%	\$6,566,368,545	198.6%
12/31/2008	38,811,962,066	55,625,011,184	16,813,049,118	69.8%	6,931,404,440	242.6%
12/31/2009	37,598,988,107	54,536,548,891	16,937,560,784	68.9%	7,048,991,768	240.3%
12/31/2010	39,229,261,481	59,338,150,323	20,108,888,842	66.1%	7,506,192,916	267.9%
12/31/2011	37,185,066,667	60,734,721,541	23,549,654,874	61.2%	7,464,243,447	315.5%
12/31/2012	39,079,472,464	61,790,595,265	22,711,122,801	63.2%	7,277,585,379	312.1%

<sup>1</sup> Results prior to December 31, 2010, do not include the DPS Division.

<sup>2</sup> The data in this table is aggregated for informational purposes. The assets of each trust fund are for the sole purpose of its members and cannot be used by another fund. Presented on pages 91–92 are schedules of funding progress for each division.

## Summary of Funding Progress—Defined Benefit Pension Plan

### Actuarial Gains and Losses

#### Schedule of Gains and Losses in Accrued Liabilities—All Division Trust Funds<sup>1</sup>

(In Millions of Dollars)

TYPE OF ACTIVITY	\$ GAIN (OR LOSS) FOR YEARS ENDED DECEMBER 31					
	2012	2011	2010	2009	2008	2007
Age and service retirements <sup>2</sup>	(\$49.0)	\$1.7	(\$4.2)	(\$18.7)	(\$47.1)	(\$56.9)
Disability retirements <sup>3</sup>	9.9	9.2	9.1	31.2	29.1	26.6
Deaths <sup>4</sup>	(5.2)	(33.8)	(59.7)	(91.2)	(79.1)	9.4
Withdrawal from employment <sup>5</sup>	44.1	(154.1)	(16.3)	(139.7)	(113.0)	(107.7)
New members <sup>6</sup>	(160.0)	(147.1)	(139.7)	(105.5)	(100.6)	(113.5)
Pay increases <sup>7</sup>	385.3	901.0	727.1	407.1	(147.9)	(221.3)
Investment income <sup>8</sup>	1,062.4	(3,188.9)	(2,806.5)	(2,908.6)	(2,632.8)	833.3
Other <sup>9</sup>	(68.6)	18.3	230.2	(368.6)	(97.1)	157.6
Gain (or loss) during year	1,218.9	(2,593.7)	(2,060.0)	(3,194.0)	(3,188.5)	527.5
Non-recurring items <sup>10</sup>	663.7	—	—	4,045.7	131.4	—
<b>Composite gain (or loss) during year</b>	<b>\$1,882.6</b>	<b>(\$2,593.7)</b>	<b>(\$2,060.0)</b>	<b>\$851.7</b>	<b>(\$3,057.1)</b>	<b>\$527.5</b>

<sup>1</sup> Results prior to 2010 do not include the DPS Division.

<sup>2</sup> *Age and service retirements*: If members retire at older ages than assumed, there is a gain. If members retire at younger ages, a loss occurs.

<sup>3</sup> *Disability retirements*: If disability claims are lower than assumed, there is a gain. If disability claims are higher than assumed, there is a loss.

<sup>4</sup> *Deaths*: If survivor claims are lower than assumed, there is a gain. If survivor claims are higher than assumed, there is a loss. If retirees die sooner than assumed, there is a gain. If retirees live longer than assumed, there is a loss.

<sup>5</sup> *Withdrawal from employment*: If more members terminate and more liabilities are released by withdrawals than assumed, there is a gain. If fewer liabilities are released, there is a loss.

<sup>6</sup> *New members*: If the number of new members entering the plan is lower than assumed, or if they have prior service, there is a loss.

<sup>7</sup> *Pay increases*: If there are smaller salary increases than assumed, there is a gain. If greater salary increases occur than assumed, there is a loss.

<sup>8</sup> *Investment income*: If there is greater investment income than assumed, there is a gain. If income is less than assumed, a loss occurs.

<sup>9</sup> *Other*: Miscellaneous gains and losses resulting from changes in actuary's valuation software, data adjustments, timing of financial transactions, etc.

<sup>10</sup> *Non-recurring items*: Includes changes in actuarial assumptions or methods and changes to plan provisions.

#### Analysis of Financial Experience

(In Millions of Dollars)

	STATE	SCHOOL	LOCAL GOVERNMENT	JUDICIAL	DENVER PUBLIC SCHOOLS
From differences between assumed and actual experience on liabilities					
Age and service retirements <sup>1</sup>	(\$9.3)	(\$31.0)	(\$13.3)	\$0.7	\$3.9
Disability retirements <sup>2</sup>	4.4	4.7	0.9	0.2	(0.3)
Deaths <sup>3</sup>	16.6	(31.1)	4.3	1.5	3.5
Withdrawals <sup>4</sup>	(41.3)	(80.8)	163.7	(0.1)	2.6
New members <sup>5</sup>	(60.3)	(61.0)	(11.3)	(2.8)	(24.6)
Pay increases <sup>6</sup>	106.9	248.6	12.4	4.1	13.3
Other <sup>7</sup>	(53.4)	(2.8)	(9.8)	(1.4)	(1.2)
Subtotal	(36.4)	46.6	146.9	2.2	(2.8)
From differences between assumed and actual experience on assets	341.3	542.6	77.3	5.9	95.3
From changes in plan assumptions <sup>8</sup>	235.8	342.8	27.8	6.8	50.5
<b>Total actuarial gains/(losses) on 2012 activities</b>	<b>\$540.7</b>	<b>\$932.0</b>	<b>\$252.0</b>	<b>\$14.9</b>	<b>\$143.0</b>
<b>Total actuarial gains/(losses) on 2011 activities</b>	<b>(\$946.1)</b>	<b>(\$1,220.5)</b>	<b>(\$188.1)</b>	<b>(\$18.6)</b>	<b>(\$220.4)</b>

<sup>1</sup> *Age and service retirements*: If members retire at older ages than assumed, there is a gain. If members retire at younger ages, a loss occurs.

<sup>2</sup> *Disability retirements*: If disability claims are lower than assumed, there is a gain. If disability claims are higher than assumed, there is a loss.

<sup>3</sup> *Deaths*: If survivor claims are lower than assumed, there is a gain. If survivor claims are higher than assumed, there is a loss. If retirees die sooner than assumed, there is a gain. If retirees live longer than assumed, there is a loss.

<sup>4</sup> *Withdrawal from employment*: If more members terminate and more liabilities are released by withdrawals than assumed, there is a gain. If fewer liabilities are released, a loss occurs.

<sup>5</sup> *New members*: If the number of new members entering the plan is lower than assumed, or if they have prior service, there is a loss.

<sup>6</sup> *Pay increases*: If there are smaller salary increases than assumed, there is a gain. If greater salary increases occur than assumed, a loss results.

<sup>7</sup> *Other*: Miscellaneous gains and losses resulting from changes in actuary's valuation software, data adjustments, timing of financial transactions, etc.

<sup>8</sup> *Change in plan assumptions*: The plan assumptions were updated in 2012 as described in the Notes to the Required Supplemental Information on pages 95–98.

## Summary of Funding Progress—Defined Benefit Pension Plan

### Actuarial Valuation Results

Contribution rates for the year ending December 31, 2014, are derived from the results of the December 31, 2012, annual actuarial valuation and are determined in advance for purposes of budgeting and consideration of any necessary legislative action.

#### Schedule of Computed Employer Contribution Rates for the 2014 Fiscal Year

	EXPRESSED AS A PERCENTAGE OF COVERED PAYROLL				
	STATE DIVISION	SCHOOL DIVISION	LOCAL GOVERNMENT DIVISION	JUDICIAL DIVISION	DENVER PUBLIC SCHOOLS DIVISION
<b>Contributions</b>					
Service retirement benefits	7.07%	8.24%	6.65%	13.64%	8.46%
Disability retirement benefits	0.24%	0.15%	0.16%	0.59%	1.46%
Survivor benefits	0.12%	0.10%	0.12%	0.38%	0.25%
Termination withdrawals	1.54%	1.66%	1.63%	1.09%	1.37%
Refunds	0.37%	0.38%	0.38%	0.32%	0.11%
Administrative expense load	0.35%	0.35%	0.35%	0.35%	0.35%
<b>Total normal cost</b>	<b>9.69%</b>	<b>10.88%</b>	<b>9.29%</b>	<b>16.37%</b>	<b>12.00%</b>
Less member contributions	(8.05%) <sup>1</sup>	(8.00%)	(8.00%)	(8.00%) <sup>2</sup>	(8.00%)
<b>Employer normal cost</b>	<b>1.64%</b>	<b>2.88%</b>	<b>1.29%</b>	<b>8.37%</b>	<b>4.00%</b>
Percentage available to amortize					
unfunded actuarial accrued liabilities	14.54%	13.29%	11.06%	7.75%	1.29%
Amortization period	53 years	49 years	27 years	Infinite	Infinite
<b>Total employer contribution rate for actuarially funded benefits</b>	<b>10.22%</b>	<b>10.15%</b>	<b>10.00%</b>	<b>13.66%</b>	<b>13.75%</b>
Amortization Equalization Disbursement	3.80%	3.80%	2.20%	2.20%	3.80%
Supplemental Amortization Equalization Disbursement	3.50%	3.50%	1.50%	1.50%	3.50%
Less Health Care Trust Fund	(1.02%)	(1.02%)	(1.02%)	(1.02%)	(1.02%)
Less Annual Increase Reserve	(0.32%)	(0.26%)	(0.33%)	(0.22%)	(0.73%)
Less PCOP Credit	—	—	—	—	(14.01%) <sup>3</sup>
<b>Employer contribution rate for defined benefit plan</b>	<b>16.18%</b>	<b>16.17%</b>	<b>12.35%</b>	<b>16.12%</b>	<b>5.29%</b>

<sup>1</sup> Weighted average of more than one statutory rate.

<sup>2</sup> Assumes no judge will elect a refund of contributions made for the 17th through the 20th year of service.

<sup>3</sup> An offset to the DPS Division rate is provided for in SB 09-282. See Note 4—Contributions.

The AED and SAED are set to increase in future years as shown below. With the passage of SB 10-001, the AED and the SAED can be adjusted based on the year-end funded status within a particular Division Trust Fund. If a particular Division Trust Fund reaches a funded status of 103 percent, a decrease in the AED and SAED is mandated and if it subsequently falls below a funded status of 90 percent, an increase is mandated. For the Local Government and Judicial Divisions, if the funded ratio reaches 90 percent and subsequently falls below 90 percent, an increase in the AED and SAED is mandated. Increases cannot exceed the maximum allowable limitations shown below.

#### Future AED and SAED Rates

PERIOD	STATE DIVISION TRUST FUND		SCHOOL DIVISION TRUST FUND		LOCAL GOVERNMENT DIVISION TRUST FUND		JUDICIAL DIVISION TRUST FUND		DENVER PUBLIC SCHOOLS DIVISION TRUST FUND <sup>1</sup>	
	AED	SAED	AED	SAED	AED	SAED	AED	SAED	AED	SAED
1/1/2013—12/31/2013	3.40%	3.00%	3.40%	3.00%	2.20%	1.50%	2.20%	1.50%	3.40%	3.00%
1/1/2014—12/31/2014	3.80%	3.50%	3.80%	3.50%	2.20%	1.50%	2.20%	1.50%	3.80%	3.50%
1/1/2015—12/31/2015	4.20%	4.00%	4.20%	4.00%	2.20%	1.50%	2.20%	1.50%	4.20%	4.00%
1/1/2016—12/31/2016	4.60%	4.50%	4.50%	4.50%	2.20%	1.50%	2.20%	1.50%	4.50%	4.50%
1/1/2017—12/31/2017	5.00%	5.00%	4.50%	5.00%	2.20%	1.50%	2.20%	1.50%	4.50%	5.00%
1/1/2018—12/31/2018	5.00%	5.00%	4.50%	5.50%	2.20%	1.50%	2.20%	1.50%	4.50%	5.50%
Maximum allowable limitations	5.00%	5.00%	4.50%	5.50%	5.00%	5.00%	5.00%	5.00%	4.50%	5.50%

<sup>1</sup> DPS Division employers are permitted to reduce the AED and SAED by the PCOP offset, as specified in C.R.S. § 24-51-412 et seq.



## Plan Data—Defined Benefit Pension Plan

Schedule of Retirees, Beneficiaries, and Survivors Added to and Removed From the Benefit Payroll  
(In Actual Dollars)

YEAR ENDED	ADDED TO PAYROLL NO. <sup>2</sup>	ANNUAL BENEFITS	REMOVED FROM PAYROLL NO. <sup>2</sup>	ANNUAL BENEFITS	PAYROLL—END OF YEAR NO. <sup>2</sup>	ANNUAL BENEFITS	AVERAGE ANNUAL BENEFITS	INCREASE IN AVERAGE BENEFITS
<i>State Division<sup>1</sup></i>								
12/31/2007	1,632	\$57,669,468	656	\$12,017,172	29,648	\$947,151,132	\$31,947	5.0%
12/31/2008	1,579	56,570,160	713	13,388,088	30,514	1,020,023,424	33,428	4.6%
12/31/2009	1,550	58,001,148	734	16,212,468	31,330	1,095,394,056	34,963	4.6%
12/31/2010	1,705	63,012,492	668	15,870,416	32,367	1,142,735,232	35,306	1.0%
12/31/2011	1,477	52,575,840	767	18,206,208	33,077	1,198,047,252	36,220	2.6%
12/31/2012	1,753	60,313,800	835	17,053,956	33,995	1,259,715,132	37,056	2.3%
<i>School Division<sup>1</sup></i>								
12/31/2007	2,713	\$87,156,144	775	\$13,230,432	43,886	\$1,371,661,740	\$31,255	4.5%
12/31/2008	2,663	84,572,232	795	14,103,468	45,754	1,487,330,100	32,507	4.0%
12/31/2009	2,432	75,857,232	727	14,333,928	47,459	1,599,048,372	33,693	3.6%
12/31/2010	3,002	94,587,504	717	15,977,299	49,744	1,677,950,928	33,732	0.1%
12/31/2011	2,783	83,582,412	809	17,059,212	51,718	1,776,539,052	34,350	1.8%
12/31/2012	3,044	87,700,656	985	18,719,640	53,777	1,876,340,508	34,891	1.6%
<i>Local Government Division<sup>1</sup></i>								
12/31/2007	345	\$12,147,432	78	\$892,944	4,088	\$122,322,048	\$29,922	6.4%
12/31/2008	367	14,246,328	82	1,380,000	4,373	139,012,452	31,789	6.2%
12/31/2009	373	12,911,052	75	1,444,056	4,671	154,915,224	33,165	4.3%
12/31/2010	463	18,211,380	82	1,560,317	5,052	171,596,184	33,966	2.4%
12/31/2011	332	11,254,980	88	1,645,992	5,296	184,500,768	34,838	2.6%
12/31/2012	687	23,576,376	105	1,892,688	5,878	209,260,764	35,601	2.2%
<i>Judicial Division<sup>1</sup></i>								
12/31/2007	25	\$1,438,848	5	\$99,228	277	\$12,786,492	\$46,161	7.1%
12/31/2008	7	543,828	3	105,720	281	13,659,096	48,609	5.3%
12/31/2009	19	1,376,436	9	189,624	291	15,290,100	52,543	8.1%
12/31/2010	10	876,804	8	234,040	293	15,935,640	54,388	3.5%
12/31/2011	21	1,224,480	3	103,752	311	17,320,980	55,694	2.4%
12/31/2012	19	1,089,288	11	337,308	319	18,331,992	57,467	3.2%
<i>Denver Public Schools Division<sup>1,3</sup></i>								
12/31/2010	6,199	\$216,886,500	—	\$—	6,199	\$216,886,500	\$34,987	—
12/31/2011	252	7,977,360	155	4,143,396	6,296	224,954,832	35,730	2.1%
12/31/2012	274	8,333,292	168	3,949,860	6,402	232,858,044	36,373	1.8%
<i>All Division Trust Funds<sup>1,4</sup></i>								
12/31/2007	4,715	\$158,411,892	1,514	\$26,239,776	77,899	\$2,453,921,412	\$31,501	4.8%
12/31/2008	4,616	155,932,548	1,593	28,977,276	80,922	2,660,025,072	32,871	4.3%
12/31/2009	4,374	148,145,868	1,545	32,180,076	83,751	2,864,647,752	34,204	4.1%
12/31/2010	11,379 <sup>5</sup>	393,574,680	1,475	33,642,072	93,655 <sup>5</sup>	3,225,104,484	34,436	0.7%
12/31/2011	4,865	156,615,072	1,822	41,158,560	96,698	3,401,362,884	35,175	2.1%
12/31/2012	5,777	181,013,412	2,104	41,953,452	100,371	3,596,506,440	35,832	1.9%

<sup>1</sup> Numbers derived on an accrual basis.<sup>2</sup> The number does not include deferred survivors.<sup>3</sup> The DPS Division Trust Fund was established on January 1, 2010, and received the net assets of DPSRS.<sup>4</sup> Data prior to December 31, 2010, does not include the DPS Division.<sup>5</sup> Includes the addition of 6,215 beneficiaries due to the DPSRS merger.

## Plan Data—Defined Benefit Pension Plan

The number of persons receiving monthly retirement benefits has grown steadily in relation to membership. This trend will likely continue for many years into the future. The retirement benefit disbursements shown in the right-hand column include cost-of-living increases paid in years since 1970. Prior to 1981, figures are for years ended June 30.

### Member-Retiree Comparison—All Division Trust Funds<sup>1</sup> (In Actual Dollars)

YEAR	NUMBER OF RETIREE ACCOUNTS ON 12/31	NUMBER OF MEMBER ACCOUNTS ON 12/31 <sup>2</sup>	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
1990	32,955	115,350	28.6%	350,398,094
1995	41,909	203,102	20.6%	639,501,796
2000	53,015	248,104	21.4%	1,093,779,068
2005	69,416	306,139	22.7%	1,973,240,491
2010	91,412	378,264	24.2%	3,161,773,781
2011	94,451	386,414	24.4%	3,323,425,219
2012	98,139	396,046	24.8%	3,506,857,384

<sup>1</sup> Numbers derived on a cash basis. Data prior to 2010 does not include the DPS Division.

<sup>2</sup> Includes inactive member accounts.

## Plan Data—Defined Benefit Pension Plan

## Schedule of Members in Valuation

By Attained Age and Years of Service as of December 31, 2012

(In Actual Dollars)

## State Division

The average age for State Division members (excluding State Troopers) was 46.3 years, and the average service was 9.0 years.

The average age for State Troopers was 40.5 years, and the average service was 11.4 years.

ATTAINED AGE	YEARS OF SERVICE TO VALUATION DATE							TOTAL	
	0-4	5-9	10-14	15-19	20-24	25-29	30+	NO.	ANNUAL VALUATION PAYROLL
Up to 20	166	—	—	—	—	—	—	166	\$1,073,247
20-24	1,327	13	—	—	—	—	—	1,340	23,835,360
25-29	3,232	535	5	—	—	—	—	3,772	114,328,966
30-34	3,297	1,724	323	6	—	—	—	5,350	195,732,748
35-39	2,615	1,798	1,112	194	9	—	—	5,728	237,470,922
40-44	2,569	1,783	1,361	887	253	9	—	6,862	319,506,170
45-49	3,943	1,569	1,285	871	742	385	27	8,822	394,713,199
50-54	1,931	1,745	1,297	972	897	748	305	7,895	389,907,825
55-59	1,679	1,547	1,227	907	822	662	382	7,226	358,731,839
60	323	270	215	184	137	95	64	1,288	61,145,412
61	243	211	193	160	146	105	59	1,117	55,216,151
62	227	236	189	123	133	67	70	1,045	49,647,233
63	196	193	156	102	97	76	44	864	40,729,760
64	177	167	132	98	59	68	44	745	35,676,229
65	138	131	110	80	58	45	42	604	28,743,465
66	135	113	104	55	51	51	48	557	25,118,088
67	82	69	50	39	30	16	35	321	14,287,471
68	71	51	42	27	24	17	17	249	10,525,382
69	52	45	22	27	16	14	16	192	8,047,615
70+	259	124	95	47	52	34	50	661	20,496,879
<b>Total</b>	<b>22,662</b>	<b>12,324</b>	<b>7,918</b>	<b>4,779</b>	<b>3,526</b>	<b>2,392</b>	<b>1,203</b>	<b>54,804</b>	<b>\$2,384,933,961</b>

## School Division

The average age for School Division members was 44.6 years, and the average service was 8.5 years.

ATTAINED AGE	YEARS OF SERVICE TO VALUATION DATE							TOTAL	
	0-4	5-9	10-14	15-19	20-24	25-29	30+	NO.	ANNUAL VALUATION PAYROLL
Up to 20	707	—	—	—	—	—	—	707	\$3,661,903
20-24	3,923	87	—	—	—	—	—	4,010	62,755,395
25-29	8,458	1,348	36	—	—	—	—	9,842	256,648,157
30-34	6,291	5,111	876	15	—	—	—	12,293	400,898,461
35-39	5,384	3,980	3,459	409	15	—	—	13,247	470,086,105
40-44	5,953	3,887	3,151	2,280	371	14	—	15,656	562,225,506
45-49	5,918	3,801	2,973	1,878	1,568	437	30	16,605	581,313,319
50-54	4,219	3,668	3,386	2,092	1,664	1,520	350	16,899	617,665,953
55-59	2,977	2,604	2,630	1,940	1,556	1,052	631	13,390	483,528,727
60	505	396	384	356	254	163	89	2,147	76,503,922
61	444	377	312	250	254	139	87	1,863	66,238,405
62	411	340	279	188	184	123	68	1,593	53,928,976
63	371	273	234	180	151	94	65	1,368	45,623,571
64	307	240	189	139	107	94	55	1,131	36,692,675
65	307	219	160	104	92	78	35	995	29,198,209
66	296	180	146	86	60	40	39	847	23,294,899
67	186	104	62	39	39	26	13	469	11,975,444
68	193	99	57	31	20	13	12	425	8,404,502
69	171	91	45	29	20	19	10	385	7,915,113
70+	676	360	185	72	44	40	45	1,422	20,506,356
<b>Total</b>	<b>47,697</b>	<b>27,165</b>	<b>18,564</b>	<b>10,088</b>	<b>6,399</b>	<b>3,852</b>	<b>1,529</b>	<b>115,294</b>	<b>\$3,819,065,598</b>

## Plan Data—Defined Benefit Pension Plan

### Schedule of Members in Valuation

By Attained Age and Years of Service as of December 31, 2012  
(In Actual Dollars)

#### Local Government Division

The average age for Local Government Division members was 44.8 years, and the average service was 7.9 years.

ATTAINED AGE	YEARS OF SERVICE TO VALUATION DATE							NO.	TOTAL
	0-4	5-9	10-14	15-19	20-24	25-29	30+		ANNUAL VALUATION PAYROLL
Up to 20	376	—	—	—	—	—	—	376	\$1,595,491
20-24	670	14	—	—	—	—	—	684	8,581,565
25-29	697	137	8	—	—	—	—	842	24,980,471
30-34	648	348	73	4	—	—	—	1,073	42,409,455
35-39	575	425	166	53	1	—	—	1,220	57,064,415
40-44	530	473	234	136	47	5	—	1,425	71,534,382
45-49	609	392	228	186	86	72	6	1,579	78,457,496
50-54	490	424	283	206	164	144	65	1,776	96,014,119
55-59	387	358	216	181	142	108	61	1,453	77,017,286
60	84	55	42	25	36	11	7	260	12,470,377
61	76	53	33	23	22	16	11	234	11,040,406
62	59	50	25	22	17	14	14	201	9,268,854
63	44	60	30	14	16	4	7	175	8,203,722
64	45	39	16	10	12	5	6	133	6,037,368
65	40	35	15	7	11	7	2	117	4,974,453
66	37	29	14	9	9	7	2	107	4,275,937
67	26	19	9	6	2	4	—	66	2,394,164
68	24	12	9	7	1	1	2	56	1,522,065
69	23	13	7	2	4	—	3	52	1,636,437
70+	162	60	24	9	5	3	5	268	4,189,983
<b>Total</b>	<b>5,602</b>	<b>2,996</b>	<b>1,432</b>	<b>900</b>	<b>575</b>	<b>401</b>	<b>191</b>	<b>12,097</b>	<b>\$523,668,446</b>

#### Judicial Division

The average age for Judicial Division members was 56.3 years, and the average service was 14.0 years.

ATTAINED AGE	YEARS OF SERVICE TO VALUATION DATE							NO.	TOTAL
	0-4	5-9	10-14	15-19	20-24	25-29	30+		ANNUAL VALUATION PAYROLL
30-34	2	—	—	—	—	—	—	2	\$45,929
35-39	2	3	1	—	—	—	—	6	525,737
40-44	7	6	2	1	1	—	—	17	1,891,234
45-49	11	21	8	4	—	1	—	45	5,342,641
50-54	17	13	9	10	15	5	2	71	8,506,953
55-59	13	14	10	7	8	5	—	57	6,675,158
60	4	4	4	2	4	2	1	21	2,529,375
61	—	2	2	2	1	—	2	9	1,135,289
62	2	2	4	2	3	2	2	17	2,078,978
63	3	4	1	—	4	3	—	15	1,889,378
64	2	4	3	2	4	2	4	21	2,384,282
65	—	1	1	3	2	2	2	11	1,359,837
66	—	4	1	—	—	2	1	8	1,053,869
67	—	—	3	1	2	—	2	8	1,003,748
68	—	—	1	3	—	3	—	7	897,131
69	—	1	—	1	1	1	—	4	451,896
70+	—	2	1	—	3	1	3	10	1,273,573
<b>Total</b>	<b>63</b>	<b>81</b>	<b>51</b>	<b>38</b>	<b>48</b>	<b>29</b>	<b>19</b>	<b>329</b>	<b>\$39,045,008</b>

## Plan Data—Defined Benefit Pension Plan

## Schedule of Members in Valuation

By Attained Age and Years of Service as of December 31, 2012

(In Actual Dollars)

## Denver Public Schools Division

The average age for DPS Division members was 42.1 years, and the average service was 5.9 years.

ATTAINED AGE	YEARS OF SERVICE TO VALUATION DATE							NO.	TOTAL
	0-4	5-9	10-14	15-19	20-24	25-29	30+		ANNUAL VALUATION PAYROLL
Up to 20	51	—	—	—	—	—	—	51	\$441,862
20-24	794	—	—	—	—	—	—	794	14,713,859
25-29	1,788	102	1	—	—	—	—	1,891	54,775,723
30-34	1,374	412	40	2	—	—	—	1,828	63,652,377
35-39	1,505	431	234	28	1	—	—	2,199	76,857,286
40-44	877	301	288	104	14	—	—	1,584	65,880,989
45-49	636	245	232	113	96	12	2	1,336	56,857,556
50-54	564	207	207	134	132	90	16	1,350	57,816,535
55-59	572	132	196	140	136	100	39	1,315	55,986,115
60	98	36	34	25	26	15	6	240	10,681,334
61	80	30	22	25	26	14	6	203	8,705,517
62	74	30	25	33	26	10	4	202	9,004,033
63	87	11	29	22	21	7	8	185	7,983,636
64	64	26	20	12	22	10	7	161	7,253,124
65	57	12	26	9	12	3	3	122	4,840,647
66	45	10	13	9	13	7	9	106	4,800,118
67	33	8	8	8	5	1	1	64	2,618,334
68	27	7	7	5	6	2	—	54	2,341,153
69	26	2	4	3	3	—	3	41	1,491,788
70+	137	10	11	7	9	4	7	185	4,170,380
<b>Total</b>	<b>8,889</b>	<b>2,012</b>	<b>1,397</b>	<b>679</b>	<b>548</b>	<b>275</b>	<b>111</b>	<b>13,911</b>	<b>\$510,872,366</b>

## Plan Data—Defined Benefit Pension Plan

### Schedule of Active Member Valuation Data

By Attained Age and Years of Service as of December 31, 2012  
(In Actual Dollars)

YEAR	NUMBER OF PARTICIPATING EMPLOYERS	NUMBER OF ACTIVE MEMBERS	ANNUAL PAYROLL FOR ACTIVE MEMBERS	AVERAGE ANNUAL PAY FOR ACTIVE MEMBERS	% INCREASE (DECREASE) IN AVERAGE ANNUAL PAY
<i>State Division</i>					
2007	69	53,324	\$2,236,517,828	\$41,942	5.62%
2008	69	54,441	2,371,638,806	43,563	3.86%
2009	70	54,333	2,384,136,844	43,880	0.73%
2010	70	54,977	2,392,080,128	43,511	(0.84%)
2011	70	54,956	2,393,791,402	43,558	0.11%
2012	70	54,804	2,384,933,961	43,518	(0.09%)
<i>School Division</i>					
2007	197	116,245	\$3,618,258,368	\$31,126	4.60%
2008	197	118,547	3,804,926,777	32,096	3.12%
2009	196	119,390	3,922,175,230	32,852	2.36%
2010	271 <sup>1</sup>	116,486	3,900,661,576	33,486	1.93%
2011	275 <sup>1</sup>	114,820	3,821,603,410	33,283	(0.61%)
2012	281 <sup>1</sup>	115,294	3,819,065,598	33,125	(0.47%)
<i>Local Government Division</i>					
2007	137	16,977	\$680,442,121	\$40,080	0.52%
2008	141	17,379	718,901,763	41,366	3.21%
2009	139	16,166	705,097,035	43,616	5.44%
2010	142	16,144	705,265,331	43,686	0.16%
2011	145	16,065	718,169,015	44,704	2.33%
2012	143	12,097	523,668,446	43,289	(3.17%)
<i>Judicial Division</i>					
2007	6	296	\$31,150,228	\$105,237	5.05%
2008	6	317	35,937,094	113,366	7.72%
2009	6	317	37,582,661	118,557	4.58%
2010	6	317	37,412,139	118,019	(0.45%)
2011	6	329	39,033,369	118,642	0.53%
2012	6	329	39,045,008	118,678	0.03%
<i>DPS Division<sup>2</sup></i>					
2010	28 <sup>1</sup>	13,171	\$470,773,746	\$35,743	—
2011	27 <sup>1</sup>	13,571	491,646,251	36,228	1.36%
2012	29 <sup>1</sup>	13,911	510,872,366	36,724	1.37%
<i>All Division Trust Funds<sup>2</sup></i>					
2007	409	186,842	\$6,566,368,545	\$35,144	4.47%
2008	413	190,684	6,931,404,440	36,350	3.43%
2009	411	190,206	7,048,991,770	37,060	1.95%
2010	517 <sup>1</sup>	201,095	7,506,192,920	37,327	0.72%
2011	523 <sup>1</sup>	199,741	7,464,243,447	37,370	0.12%
2012	529 <sup>1</sup>	196,435	7,277,585,379	37,048	(0.86%)

<sup>1</sup> Includes charter schools operating within the School and DPS Divisions and under the Colorado Charter School Institute, but are not included in years prior to 2010.

<sup>2</sup> Data prior to 2010 does not include the DPS Division.

## Actuarial Methods and Assumptions—Health Care Trust Funds

### Actuarial Methods

The Health Care Trust Fund (HCTF) and the DPS Health Care Trust Fund (DPS HCTF) are defined benefit other post-employment benefit (OPEB) plans, with the purpose of subsidizing PERACare, PERA's health benefits program. Participation in the HCTF and the DPS HCTF is voluntary pursuant to C.R.S. § 24-51-1201. Employer contributions and investment earnings on the assets of the plans pay for the costs. In addition, any employer, as defined by C.R.S. § 24-51-101 (20), may elect to provide health care coverage through PERACare for its employees who are members.

The HCTF and the DPS HCTF provide a health care premium subsidy based upon the benefit structure under which a member retires and the member's years of service credit. There is an allocation of the premium subsidy between the trust funds for members who retire with service credit in the DPS division and one or more of the other divisions. The basis for the allocation of the premium subsidy is the percentage of the member contribution balance from each division as it relates to the total member contribution account balance.

In general, the actuarial accrued liabilities of the HCTF and the DPS HCTF consists of the following three types of benefits:

- A service-based monthly premium subsidy.
- A subsidy for members not eligible for premium-free Medicare Part A coverage.
- A premium reduction provided to PERACare enrollees covered under plans receiving the Retiree Drug Subsidy (RDS).

The plan's actuary determines the costs relating to the subsidies provided by the HCTF and the DPS HCTF and the results are contained within the annual actuarial valuation report. Currently, all participating employers are statutorily required to contribute 1.02 percent of covered compensation to fund these benefits.

The actuary followed ASOP No. 6, *Measuring Retiree Group Benefit Obligation* for purposes of recommending appropriate OPEB assumptions. The Board is responsible for the adoption of the actuarial methods and assumptions used in the actuarial valuations of the OPEB plans. Although many of the economic and demographic assumptions used to determine pension liabilities apply in the determination of OPEB liabilities, additional assumptions typically are required. All actuarial methods and assumptions necessary to assess OPEB liabilities, in addition to those already provided on previous pages, are described and/or listed below.

#### **Entry Age Normal Cost Method**

The Entry Age Normal Cost Method used for the determination of the pension liabilities applies in a similar manner in the calculation of the OPEB liabilities with one notable exception. For the health care benefits, the calculation of the normal cost is based upon total expected career service and is independent of compensation.

#### **Asset Valuation Method**

The method for valuing assets of the HCTF and DPS HCTF is a smoothed market value of assets. The smoothed value of assets recognizes the differences between actual and expected investment experience for each year in equal amounts over a four-year period.

### Actuarial Assumptions

The determination of the actuarial accrued liability includes recognition of a number of economic and non-economic assumptions in addition to the applied actuarial methods described above.

#### **Economic Assumptions**

The economic assumptions for price inflation, investment rate of return, and wage inflation, used in the determination of the pension liabilities also apply to the OPEB plans. The wage inflation rate is the basis for amortization of the unfunded liability. In addition to these economic assumptions, health care cost trend rates are needed to project the future costs associated with providing benefits to those PERACare enrollees under the PERA benefit structure who are not eligible for premium-free Medicare Part A. Health care cost trend rates also are needed to project the future value of RDS receipts to reduce the contributions of PERACare enrollees covered under those plans receiving the RDS.

Exhibit J contains the assumptions used in determining the additional liability for PERACare enrollees under the PERA benefit structure who are age 65 or older and who are not eligible for premium-free Medicare Part A. Shown are the monthly costs/premiums assumed for 2013 which are subject to the health care cost trend rates displayed in the adjacent tables.

Exhibit K contains the dollar subsidy amounts used in determining the additional liability for PERACare enrollees under the DPS benefit structure who are age 65 or older and who are not eligible for premium-free Medicare Part A.

The HCTF and DPS HCTF receive RDS payments from the Centers for Medicare & Medicaid Services' (CMS) Retiree Drug Subsidy Program for those PERACare enrollees participating in the self-insured Medicare supplement plans and the Medicare HMO plan offered by Rocky Mountain Health Plans. Exhibit L shows the estimated RDS payments assumed for 2013 which are subject to the RDS health care cost trend rates also shown in Exhibit L. These assumptions are used in the determination of the liability associated with the RDS subsidy.

As the service-based premium subsidy does not increase over time, PERACare enrollees are required to pay the entire increase in annual health care costs each year, resulting in monthly contributions that increase more rapidly over time than the total cost of coverage. Therefore, the prescription drug benefit provided to those PERACare enrollees covered under the plans receiving RDS payments, and who are eligible for Medicare Part D, is expected to lose its status as a qualified retiree prescription drug plan, resulting in a termination of the RDS. The annual valuation currently assumes PERACare will last qualify for RDS payments in 2023, assuming no changes in the plan design.

## Actuarial Methods and Assumptions—Health Care Trust Funds

### *Non-Economic Assumptions*

Current PERACare participants are assumed to maintain their current health care benefit elections in perpetuity. For active members retiring directly from covered employment, Exhibit M provides the assumed participation rates. The participation of current PERACare enrollees and members retiring directly from active service is adjusted to reflect the increasing rate of participation with age, as described in Exhibit M. For eligible inactive members, 25 percent are assumed to elect health care coverage upon commencement of their monthly benefit. For spousal participation, actual census data and current plan elections of current benefit recipients are used. For spouses of eligible inactive members and future retirees, 25 percent (15 percent for DPS Division) are assumed to elect coverage for their spouse.

Exhibit N shows the assumed plan elections for future Medicare-eligible retirees.

For those current PERACare enrollees who are age 65 and older, the premium-free Medicare Part A eligibility status is provided by PERA and is assumed to be maintained in perpetuity. For current PERACare enrollees not yet age 65, hired prior to April 1, 1986, and not assumed eligible for premium-free Medicare Part A coverage through their spouse, and for those active employees hired prior to April 1, 1986, Exhibit O lists the percentage, by estimated age at hire, of PERACare enrollees assumed to not qualify for premium-free Medicare Part A benefits, thus qualifying for the applicable “No Part A” subsidy.

### *Actuarial Studies*

All actuarial studies described in the section titled, Actuarial Methods and Assumptions – Defined Benefit Pension Plans, incorporated a review and analysis of actuarial methods and assumptions pertaining to the HCTF and the DPS HCTF.

### Changes Since Last Valuation

#### *Changes in Actuarial Methods*

There are no actuarial method changes reflected in the December 31, 2012, actuarial valuation since the last actuarial valuation as of December 31, 2011.

#### *Changes in Actuarial Assumptions*

Listed below are the actuarial assumption changes for the OPEB plans, in addition to those mentioned on previous pages regarding the defined benefit pension plan adopted as of November 13, 2012, and incorporated into the December 31, 2012, actuarial valuation:

- The health care cost trend rates applicable to subsidy benefits under the PERA benefit structure under both the HCTF and the DPS HCTF generally decreased for each future year.
- Health care cost trend rates applicable to the retiree drug subsidy payments under both the HCTF and the DPS HCTF decreased for each future year.
- Participation rates for members in the PERA Divisions increased at most ages up to and including age 62.
- Participation rates for members in the DPS Division increased significantly at all ages, except age 69.
- For members under the PERA benefit structure, the percent covered and qualifying for the “No Part A” subsidy increased at each age.
- For members under the DPS benefit structure, the percent covered and qualifying for the “No Part A” subsidy slightly decreased at a few ages.
- The spousal age difference assumption under the PERA and DPS Divisions decreased from a 3-year age difference to a 2-year age difference.

#### *Changes in Plan Provisions*

There are no changes in plan provisions reflected in the December 31, 2012, actuarial valuation since the last actuarial valuation as of December 31, 2011.



## Actuarial Methods and Assumptions—Health Care Trust Funds

Exhibit J: Initial Health Care Costs and Trend Rate Assumptions—*PERA Benefit Structure*

## Initial Health Care Costs

PLAN	MONTHLY PREMIUM FOR MEMBERS WITHOUT MEDICARE PART A	MONTHLY PREMIUM FOR MEMBERS WITH MEDICARE PART A
Self-Funded Medicare Supplement Plans	\$694	\$302
Kaiser Permanente Medicare Advantage HMO	716	199
Rocky Mountain Health Plans Medicare HMO	564	212
UnitedHealthCare Medicare HMO	598	153
2013 Monthly Medicare Part A Premium — \$441		

## Health Care Cost Trend Rate Assumptions

PLAN/YEAR	PREMIUM FOR MEMBERS WITHOUT MEDICARE PART A	PREMIUM FOR MEMBERS WITH MEDICARE PART A
Self-Funded Medicare Supplement Plans		
2013	6.36%	5.86%
2014	5.91%	5.60%
2015	5.45%	5.25%
2016+	5.00%	5.00%
Kaiser Permanente Medicare Advantage HMO		
2013	6.09%	5.68%
2014	5.73%	5.45%
2015	5.36%	5.23%
2016+	5.00%	5.00%
Rocky Mountain Health Plans Medicare HMO		
2013	5.68%	5.41%
2014	5.45%	5.27%
2015	5.23%	5.14%
2016+	5.00%	5.00%
UnitedHealthCare Medicare HMO		
2013	6.05%	5.63%
2014	5.70%	5.42%
2015	5.34%	5.21%
2016+	5.00%	5.00%
Medicare Part A Year/Premiums		
2013	— 1.25%	
2014	— 0.00%	
2015	— 2.25%	
2016	— 2.75%	
2017	— 3.00%	
2018	— 3.50%	
2019	— 3.75%	
2020+	— 3.75%	

## Actuarial Methods and Assumptions—Health Care Trust Funds

### Exhibit K: Additional Premium Subsidy Assumptions—DPS Benefit Structure

YEARS OF SERVICE	MONTHLY SUBSIDY FOR MEMBERS WITHOUT MEDICARE PART A
20+	\$115.00
19	109.25
18	103.50
17	97.75
16	92.00
15	86.25
14	80.50
13	74.75
12	69.00
11	63.25
10	57.50
9	51.75
8	46.00
7	40.25
6	34.50
5	28.75
4	23.00
3	17.25
2	11.50
1	5.75

### Exhibit L: Retiree Drug Subsidy Monthly Payment and Health Care Cost Trend Rate Assumptions

#### Retiree Drug Subsidy Monthly Payment Assumptions

PLAN	ESTIMATED RETIREE DRUG SUBSIDY PAYMENT <sup>1</sup>
Self-Funded Medicare Supplement Plan #1 (MS#1)	\$44.00
Self-Funded Medicare Supplement Plan #2 (MS#2)	28.00
Self-Funded Medicare Supplement Plan #3 (MS#3)	12.00
Kaiser Permanente Medicare Advantage HMO <sup>2</sup>	0.00
Rocky Mountain Health Plans Medicare HMO	37.00
UnitedHealthCare Medicare HMO <sup>2</sup>	0.00

<sup>1</sup> All payments are subject to the Health Care Cost Trend Rates

<sup>2</sup> Members eligible for Medicare Part D that are enrolled in Kaiser Permanente or UnitedHealthCare receive prescription drug benefits in a Medicare Advantage Prescription Drug Plan (MA-PDP) and do not qualify to generate an RDS for the HCTF or DPS HCTF.

#### Retiree Drug Subsidy Health Care Cost Trend Rate Assumptions

YEAR	RETIREE DRUG SUBSIDY PAYMENTS
2013	4.00%
2014	4.25%
2015	4.75%
2016	5.00%
2017	5.50%
2018	5.75%
2019	6.25%
2020	6.00%
2021	5.75%
2022	5.50%
2023	5.25%
2024 +	5.00%

## Actuarial Methods and Assumptions—Health Care Trust Funds

## Exhibit M: Health Care Participation Rate Assumptions

ATTAINED AGE(S)	PERCENT ELECTING HEALTH CARE COVERAGE		ATTAINED AGE(S)	PERCENT ELECTING HEALTH CARE COVERAGE	
	HCTF	DPS HCTF		HCTF	DPS HCTF
15-48	25%	50%	62	55%	65%
49	30%	50%	63	55%	65%
50	35%	50%	64	55%	65%
51	35%	60%	65	60%	65%
52	40%	60%	66	60%	65%
53	40%	60%	67	60%	65%
54	45%	60%	68	60%	65%
55	45%	60%	69	60%	65%
56	45%	60%	70	60%	70%
57	50%	60%	71	60%	70%
58	50%	60%	72	60%	75%
59	55%	60%	73	60%	75%
60	55%	65%	74+	65%	75%
61	55%	65%			

## Exhibit N: Health Care Plan Election Rate Assumptions

PLAN	PERCENT ELECTING PLAN	
	HCTF	DPS HCTF
Self-Funded Medicare Supplement Plans	60% <sup>1</sup>	20% <sup>2</sup>
Kaiser Permanente Medicare Advantage HMO	25%	35%
Rocky Mountain Health Plans Medicare HMO	10%	5%
UnitedHealthCare Medicare HMO	5%	40%

<sup>1</sup> Seventy (70) percent of those PERACare enrollees participating in the self-funded plans are assumed to elect MS #1, 28 percent MS #2, and 2 percent MS #3.

<sup>2</sup> Eighty-four (84) percent of those PERACare enrollees participating in the self-funded plans are assumed to elect MS #1, 13 percent MS #2, and 3 percent MS #3.

## Exhibit O: Percent Qualifying for “No Part A” Subsidy Assumptions

HIRE AGE	PERCENT QUALIFYING FOR “NO PART A” SUBSIDY	
	HCTF	DPS HCTF
0-24	23%	20%
25-29	15%	12%
30-34	9%	8%
35-39	5%	3%
40+	3%	2%

Note: Ninety-five (95) percent of PERACare enrollees receiving health care benefits as a result of disability retirement are assumed to qualify for premium-free Medicare Part A. One-hundred (100) percent of eligible inactive (or deferred vested) members enrolled in PERACare are assumed to obtain the 40 or more quarters of Medicare-covered employment required for premium-free Medicare Part A coverage as a result of their subsequent employment.

## Summary of Funding Progress—Health Care Trust Funds

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 PERA members. The information in this section provides an overview of funding progress:

- The solvency test, which shows (by health care trust fund) the degree to which existing liabilities are funded, including prior history.
- A schedule of the total UAAL, which also shows the UAAL as a percentage of annual valuation payroll, including prior history.
- A schedule detailing actuarial gains and losses, by source, for the current year.
- The scheduled contribution requirements for the year immediately following the reporting period.

Consideration of the plans' current funded ratio, the unfunded liabilities in relation to annual payroll, historic trends, including significant gains and losses, and the schedule of future contributions should provide sufficient information to appropriately measure funding progress.

### Solvency Test

The solvency test is one means of checking funding progress of defined benefit plans. In this test, the plan's valuation assets typically are compared with: (A) member contributions (with interest) on deposit, (B) the liabilities for future benefits to persons who have retired, died or become disabled, and to those who have terminated service with the right to a future benefit, and (C) the liabilities for service already rendered by active members. Since the HCTF and the DPS HCTF are funded only through employer contributions, there are no member contribution accounts (liability A). The table below shows the funded level of the liabilities for future benefits to current retirees (liability B) and the unfunded liabilities associated with service already rendered by active members (liability C).

#### Solvency Test (In Actual Dollars)

VALUATION DATE	AGGREGATE ACCRUED LIABILITIES			VALUATION ASSETS	PORTION OF ACTUARIAL ACCRUED LIABILITIES COVERED BY VALUATION ASSETS		
	ACTIVE MEMBER CONTRIBUTIONS (A)	RETIREES, BENEFICIARIES, AND INACTIVE MEMBERS (B)	EMPLOYER-FINANCED PORTION OF ACTIVE MEMBERS (C)		LIABILITY (A)	LIABILITY (B)	LIABILITY (C)
<i>Health Care Trust Fund</i>							
12/31/2007	N/A	\$926,179,967	\$377,414,269	\$258,774,755	N/A	27.9%	0.0%
12/31/2008	N/A	969,288,304	399,344,778	255,976,429	N/A	26.4%	0.0%
12/31/2009	N/A	1,241,348,747	521,891,742	260,340,550	N/A	21.0%	0.0%
12/31/2010	N/A	1,179,809,147	463,184,331	288,193,296	N/A	24.4%	0.0%
12/31/2011	N/A	1,251,579,359	459,210,393	282,228,196	N/A	22.5%	0.0%
12/31/2012	N/A	1,259,557,008	463,937,680	285,096,629	N/A	22.6%	0.0%
<i>DPS Health Care Trust Fund<sup>1</sup></i>							
12/31/2010	N/A	\$58,431,606	\$20,080,989	\$14,085,654	N/A	24.1%	0.0%
12/31/2011	N/A	57,092,795	20,381,795	14,447,950	N/A	25.3%	0.0%
12/31/2012	N/A	54,727,369	22,941,318	14,442,582	N/A	26.4%	0.0%

<sup>1</sup> The DPS HCTF was established on January 1, 2010, and received the balance of the Denver Public Schools Retiree Health Benefit Trust.

## Summary of Funding Progress—Health Care Trust Funds

### Unfunded Actuarial Accrued Liability

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

The following factors resulted in lower liabilities (or gains) during 2012:

- Recognition of investment gains experienced in 2009, 2010, and 2012.
- More members terminated PERA-covered employment than expected during 2012.
- Fewer service and disability retirements were experienced than expected.

The following factors resulted in higher liabilities (or losses) during 2012:

- Recognition of investment losses experienced in 2011.
- New members had some service resulting in accrued liabilities.

### Unfunded Actuarial Accrued Liabilities (UAAL)—Health Care Trust Funds (In Actual Dollars)

(A) VALUATION DATE	(B) ACTUARIAL VALUE OF PLAN ASSETS	(C) TOTAL ACTUARIAL ACCRUED LIABILITIES	(D) UNFUNDED ACTUARIAL ACCRUED LIABILITIES (C)-(B)	(E) FUNDED RATIO (B)/(C)	(F) ANNUAL COVERED PAYROLL	(G) UAAL AS A % OF COVERED PAYROLL (D)/(F)
<i>Health Care Trust Fund</i>						
12/31/2007	\$258,774,755	\$1,303,594,236	\$1,044,819,481	19.9%	\$6,566,368,545	15.9%
12/31/2008	255,976,429	1,368,633,082	1,112,656,653	18.7%	6,931,404,440	16.1%
12/31/2009	260,340,550	1,763,240,489	1,502,899,939	14.8%	7,048,991,770	21.3%
12/31/2010	288,193,296	1,642,993,478	1,354,800,182	17.5%	7,035,419,174	19.3%
12/31/2011	282,228,196	1,710,789,752	1,428,561,556	16.5%	6,972,597,196	20.5%
12/31/2012	285,096,629	1,723,494,688	1,438,398,059	16.5%	6,766,713,013	21.3%
<i>DPS Health Care Trust Fund<sup>1</sup></i>						
12/31/2010	\$14,085,654	\$78,512,595	\$64,426,941	17.9%	\$470,773,746	13.7%
12/31/2011	14,447,950	77,474,590	63,026,640	18.6%	491,646,251	12.8%
12/31/2012	14,442,582	77,668,687	63,226,105	18.6%	510,872,366	12.4%

<sup>1</sup> The DPS HCTF was established on January 1, 2010, and received the balance of the Denver Public Schools Retiree Health Benefit Trust.

## Summary of Funding Progress—Health Care Trust Funds

### Actuarial Gains and Losses

#### Analysis of Financial Experience—Health Care Trust Funds

(In Millions of Dollars)

	HCTF	DPS HCTF
From differences between assumed and actual experience on liabilities		
Age and service retirements <sup>1</sup>	(\$1.6)	\$0.1
Disability retirements <sup>2</sup>	0.3	—
Deaths <sup>3</sup>	(0.3)	0.1
Withdrawals <sup>4</sup>	1.2	0.1
New members <sup>5</sup>	(4.0)	(0.6)
Other <sup>6</sup>	22.0	1.0
Subtotal	17.6	0.7
From differences between assumed and actual experience on assets	8.1	0.2
From change in plan assumptions <sup>7</sup>	4.3	(0.8)
<b>Total actuarial gains/(losses) on 2012 activities</b>	<b>\$30.0</b>	<b>\$0.1</b>
<b>Total actuarial gains/(losses) on 2011 activities</b>	<b>(\$40.6)</b>	<b>\$2.1</b>

<sup>1</sup> *Age and service retirements:* If members retire at older ages than assumed, there is a gain. If members retire at younger ages, a loss occurs.

<sup>2</sup> *Disability retirements:* If disability claims are lower than assumed, there is a gain. If disability claims are higher than assumed, there is a loss.

<sup>3</sup> *Deaths:* If survivor claims are lower than assumed, there is a gain. If survivor claims are higher than assumed, there is a loss. If retirees die sooner than assumed, there is a gain. If retirees live longer than assumed, there is a loss.

<sup>4</sup> *Withdrawals:* If more members terminate and more liabilities are released by withdrawals than assumed, there is a gain. If fewer liabilities are released by terminations than assumed, there is a loss.

<sup>5</sup> *New members:* If a number of new members entering the plan have prior service, there is a loss.

<sup>6</sup> *Other:* Miscellaneous gains and losses resulting from changes in actuary's valuation software, data adjustments, timing of financial transactions, etc.

<sup>7</sup> *Change in plan assumptions:* The plan assumptions were updated in 2012 as described in the Notes to the Required Supplemental Information on pages 95–98.

### Actuarial Valuation Results

Contribution rates for the year ending December 31, 2014, are derived from the results of the December 31, 2012, annual actuarial valuation and are determined in advance for purposes of budgeting and consideration of any necessary legislative action.

#### Schedule of Computed Employer Contribution Rates for the 2014 Fiscal Year

	EXPRESSED AS A PERCENTAGE OF MEMBER PAYROLL	
	HCTF	DPS HCTF
<b>Contributions</b>		
Service retirement benefits	0.18%	0.20%
Disability retirement benefits	0.01%	0.01%
Survivor benefits	0.00%	0.00%
Separation benefits	0.03%	0.02%
<b>Total normal cost</b>	<b>0.22%</b>	<b>0.23%</b>
Less member contributions	(0.00%)	(0.00%)
Employer normal cost	<b>0.22%</b>	<b>0.23%</b>
Percentage available to amortize unfunded actuarial accrued liabilities	0.80%	0.79%
Amortization period	66 years	21 years
<b>Total employer contribution rate for actuarially funded benefits</b>	<b>1.02%</b>	<b>1.02%</b>

## Plan Data—Health Care Trust Funds

Schedule of Retirees, Beneficiaries, and Survivors Added to and Removed from the Benefit Payroll—Health Care Trust Funds  
(In Actual Dollars)

YEAR ENDED	ADDED TO PAYROLL NO.	ANNUAL SUBSIDY	REMOVED FROM PAYROLL NO.	ANNUAL SUBSIDY	PAYROLL—END OF YEAR NO.	ANNUAL SUBSIDY	AVERAGE ANNUAL SUBSIDY	INCREASE IN AVERAGE SUBSIDY
<i>Health Care Trust Fund<sup>1</sup></i>								
12/31/2007	3,408	\$7,714,959	1,710	\$2,841,489	43,119	\$75,263,268	\$1,745	(0.3%)
12/31/2008	3,479	7,960,047	1,713	2,767,245	44,885	78,323,211	1,745	0.0%
12/31/2009	3,435	7,886,217	1,582	2,442,462	46,738	81,765,552	1,749	0.2%
12/31/2010	3,633	8,290,281	1,653	2,623,104	48,718	85,247,016	1,750	0.1%
12/31/2011	3,399	7,638,162	1,900	2,999,430	50,217	86,755,011	1,728	(1.3%)
12/31/2012	3,504	7,863,033	2,040	3,548,532	51,681	90,142,083	1,744	0.9%
<i>DPS Health Care Trust Fund<sup>1,2</sup></i>								
12/31/2010	3,944	\$6,446,394	—	\$—	3,944	\$6,446,394	\$1,634	—
12/31/2011	203	411,792	189	292,905	3,958	6,296,871	1,591	(2.6%)
12/31/2012	170	340,929	165	258,957	3,963	6,086,352	1,536	(3.5%)

<sup>1</sup> The subsidy benefit is based upon creditable service and varies by attained age. Results do not include benefits valued for RDS subsidies or "No Part A" benefits.

<sup>2</sup> The DPS HCTF was established January 1, 2010, and received the balance of the Denver Public Schools Retiree Health Benefit Trust.

Schedule of Active Member Valuation Data—Health Care Trust Funds  
(In Actual Dollars)

YEAR	NUMBER OF PARTICIPATING EMPLOYERS	NUMBER OF ACTIVE MEMBERS	ANNUAL PAYROLL FOR ACTIVE MEMBERS	AVERAGE ANNUAL PAY FOR ACTIVE MEMBERS	% INCREASE (DECREASE) IN AVERAGE ANNUAL PAY
<i>Health Care Trust Fund</i>					
2007	409	186,842	\$6,566,368,545	\$35,144	4.47%
2008	413	190,684	6,931,404,440	36,350	3.43%
2009	411	190,206	7,048,991,770	37,060	1.95%
2010	489 <sup>1</sup>	187,924	7,035,419,174	37,438	1.02%
2011	496 <sup>1</sup>	186,170	6,972,597,196	37,453	0.04%
2012	500 <sup>1</sup>	182,524	6,766,713,013	37,073	(1.01%)
<i>DPS Health Care Trust Fund<sup>2</sup></i>					
2010	28 <sup>1</sup>	13,171	\$470,773,746	\$35,743	—
2011	27 <sup>1</sup>	13,571	491,646,251	36,228	1.36%
2012	29 <sup>1</sup>	13,911	510,872,366	36,724	1.37%

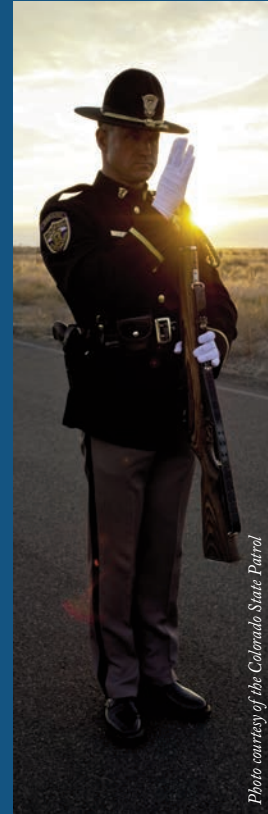
<sup>1</sup> Includes charter schools operating within the School and DPS Divisions and under the Colorado Charter School Institute, but are not included in years prior to 2010.

<sup>2</sup> The DPS HCTF was established January 1, 2010, and received the balance of the Denver Public Schools Retiree Health Benefit Trust.





## Statistical Section



*Photo courtesy of the Colorado State Patrol*

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## Statistical Section Overview

The Statistical Section presents detailed information that assists users in utilizing the basic financial statements, notes to basic financial statements, and required supplementary information to assess the economic condition of Colorado PERA.

### Contents

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#### Financial Trends

The following schedules show trend information about the changes and growth in PERA's net assets over the past 10 years:

- *Changes in Net Position*
- *Benefits and Refund Deductions from Net Position by Type*

#### Operating Information

The following schedules contain information related to the services that PERA provides and the activities it performs:

- *Member and Benefit Recipient Statistics<sup>1</sup>*
- *Schedule of Average Retirement Benefits Payable—All Division Trust Funds<sup>1</sup>*
- *Schedule of Average Retirement Benefits Payable<sup>1</sup>*
- *Colorado PERA Benefit Payments—All Division Trust Funds*
- *Schedule of Retirees and Survivors by Types of Benefits*
- *Schedule of Average Benefit Payments<sup>1</sup>*
- *Schedule of Average Benefit Payments—All Division Trust Funds<sup>1</sup>*
- *Schedule of Contribution Rate History*
- *Principal Participating Employers*
- *Schedule of Affiliated Employers*

Schedules and information are derived from PERA internal sources unless otherwise noted.

<sup>1</sup>Schedules and data are provided by the consulting actuary, Cavanaugh Macdonald Consulting, LLC.

## Changes in Net Position

For the Years Ended December 31  
(In Thousands of Dollars)

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### State and School Division Trust Fund<sup>1</sup>

<b>ADDITIONS</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
Employer contributions <sup>2</sup>	\$387,920	\$452,997	\$491,031
Member contributions <sup>2</sup>	405,715	411,376	425,657
Purchased service	695,516	192,033	212,971
Investment income	5,203,073	3,663,632	2,827,871
Other	3	30	(9)
<b>Total additions</b>	<b>6,692,227</b>	<b>4,720,068</b>	<b>3,957,521</b>
<b>DEDUCTIONS</b>			
Benefit payments	1,469,343	1,677,417	1,872,565
Refunds	99,039	108,136	114,968
Disability insurance premiums	3,592	4,186	4,038
Administrative expenses	19,750	20,949	18,811
Other	448	13,320	10,373
<b>Total deductions</b>	<b>1,592,172</b>	<b>1,824,008</b>	<b>2,020,755</b>
<b>Change in net position</b>	<b>5,100,055</b>	<b>2,896,060</b>	<b>1,936,766</b>
<b>Net position at beginning of year</b>	<b>22,023,781</b>	<b>27,123,836</b>	<b>30,019,896</b>
<b>Net position at end of year</b>	<b>\$27,123,836</b>	<b>\$30,019,896</b>	<b>\$31,956,662</b>

<sup>1</sup> The State and School Division Trust Funds merged on July 1, 1997, and separated on January 1, 2006.

<sup>2</sup> Employer and Member contribution rate history is shown on pages 187–192.

**Changes in Net Position**For the Years Ended December 31  
(In Thousands of Dollars)State Division Trust Fund<sup>1</sup>

<b>ADDITIONS</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
Employer contributions <sup>2</sup>	\$208,795	\$232,997	\$270,353	\$297,240	\$287,624
Member contributions <sup>2</sup>	169,965	179,971	191,481	194,168	223,240
Purchased service	39,480	8,259	13,315	8,830	12,496
Investment income (loss)	1,921,863	1,388,265	(3,745,843)	1,742,571	1,553,142
Other	1	4	7	3	1
<b>Total additions</b>	<b>2,340,104</b>	<b>1,809,496</b>	<b>(3,270,687)</b>	<b>2,242,812</b>	<b>2,076,503</b>
<b>DEDUCTIONS</b>					
Benefit payments	849,229	925,761	999,279	1,071,725	1,122,435
Refunds	65,911	56,578	56,716	58,416	68,844
Disability insurance premiums	1,772	1,833	1,794	2,004	1,661
Administrative expenses	7,889	6,963	8,639	8,729	8,942
Other	3,103	7,592	6,613	(1,519)	(726)
<b>Total deductions</b>	<b>927,904</b>	<b>998,727</b>	<b>1,073,041</b>	<b>1,139,355</b>	<b>1,201,156</b>
<b>Change in net position</b>	<b>1,412,200</b>	<b>810,769</b>	<b>(4,343,728)</b>	<b>1,103,457</b>	<b>875,347</b>
<b>Net position at beginning of year</b>	<b>12,629,060</b>	<b>14,041,260</b>	<b>14,852,029</b>	<b>10,508,301</b>	<b>11,611,758</b>
<b>Net position at end of year</b>	<b>\$14,041,260</b>	<b>\$14,852,029</b>	<b>\$10,508,301</b>	<b>\$11,611,758</b>	<b>\$12,487,105</b>

<b>ADDITIONS</b>	<b>2011</b>	<b>2012</b>
Employer contributions <sup>2</sup>	\$283,222	\$335,073
Member contributions <sup>2</sup>	258,678	227,058
Purchased service	11,277	16,358
Investment income	232,669	1,511,244
Other	331	150
<b>Total additions</b>	<b>786,177</b>	<b>2,089,883</b>
<b>DEDUCTIONS</b>		
Benefit payments	1,174,707	1,231,922
Refunds	70,090	69,221
Disability insurance premiums	1,685	1,570
Administrative expenses	8,685	8,568
Other	(4,546)	3,911
<b>Total deductions</b>	<b>1,250,621</b>	<b>1,315,192</b>
<b>Change in net position</b>	<b>(464,444)</b>	<b>774,691</b>
<b>Net position at beginning of year</b>	<b>12,487,105</b>	<b>12,022,661</b>
<b>Net position at end of year</b>	<b>\$12,022,661</b>	<b>\$12,797,352</b>

<sup>1</sup> The State and School Division Trust Funds merged on July 1, 1997, and separated on January 1, 2006.<sup>2</sup> Employer and Member contribution rate history is shown on pages 187–192.

## Changes in Net Position

For the Years Ended December 31  
(In Thousands of Dollars)

### School Division Trust Fund<sup>1</sup>

ADDITIONS	2006	2007	2008	2009	2010
Employer contributions <sup>2</sup>	\$336,703	\$375,480	\$430,215	\$480,239	\$519,044
Member contributions <sup>2</sup>	272,589	289,231	304,686	314,571	316,446
Purchased service	50,806	14,331	15,020	10,152	13,096
Investment income (loss)	2,954,863	2,145,958	(5,842,787)	2,741,797	2,469,517
Other	23	15	19	12	25
<b>Total additions</b>	<b>3,614,984</b>	<b>2,825,015</b>	<b>(5,092,847)</b>	<b>3,546,771</b>	<b>3,318,128</b>
<b>DEDUCTIONS</b>					
Benefit payments	1,213,875	1,329,803	1,449,907	1,563,315	1,642,350
Refunds	68,493	67,710	65,659	70,910	79,012
Disability insurance premiums	2,829	2,983	2,886	3,186	2,802
Administrative expenses	11,523	11,942	12,815	13,226	17,104
Other	9,909	5,348	3,272	9,121	9,396
<b>Total deductions</b>	<b>1,306,629</b>	<b>1,417,786</b>	<b>1,534,539</b>	<b>1,659,758</b>	<b>1,750,664</b>
<b>Change in net position</b>	<b>2,308,355</b>	<b>1,407,229</b>	<b>(6,627,386)</b>	<b>1,887,013</b>	<b>1,567,464</b>
<b>Net position at beginning of year</b>	<b>19,327,602</b>	<b>21,635,957</b>	<b>23,043,186</b>	<b>16,415,800</b>	<b>18,302,813</b>
<b>Net position at end of year</b>	<b>\$21,635,957</b>	<b>\$23,043,186</b>	<b>\$16,415,800</b>	<b>\$18,302,813</b>	<b>\$19,870,277</b>

ADDITIONS	2011	2012
Employer contributions <sup>2</sup>	\$541,962	\$573,586
Member contributions <sup>2</sup>	315,958	313,923
Purchased service	14,465	17,406
Investment income	370,045	2,434,176
Other	544	246
<b>Total additions</b>	<b>1,242,974</b>	<b>3,339,337</b>
<b>DEDUCTIONS</b>		
Benefit payments	1,731,348	1,832,643
Refunds	78,543	77,154
Disability insurance premiums	2,619	2,522
Administrative expenses	16,322	16,086
Other	9,839	9,157
<b>Total deductions</b>	<b>1,838,671</b>	<b>1,937,562</b>
<b>Change in net position</b>	<b>(595,697)</b>	<b>1,401,775</b>
<b>Net position at beginning of year</b>	<b>19,870,277</b>	<b>19,274,580</b>
<b>Net position at end of year</b>	<b>\$19,274,580</b>	<b>\$20,676,355</b>

<sup>1</sup> The State and School Division Trust Funds merged on July 1, 1997, and separated on January 1, 2006.

<sup>2</sup> Employer and Member contribution rate history is shown on pages 187–192.

**Changes in Net Position**For the Years Ended December 31  
(In Thousands of Dollars)Local Government Division Trust Fund<sup>1</sup>

<b>ADDITIONS</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>
Employer contributions <sup>2</sup>	\$31,033	\$47,104	\$54,357	\$60,664	\$68,711
Member contributions <sup>2</sup>	37,584	43,496	48,404	51,047	54,880
Purchased service	68,056	18,566	92,018	14,461	2,447
Investment income	341,545	255,505	206,017	369,181	274,991
Other	—	—	2	4	12
<b>Total additions</b>	<b>478,218</b>	<b>364,671</b>	<b>400,798</b>	<b>495,357</b>	<b>401,041</b>
<b>DEDUCTIONS</b>					
Benefit payments	67,458	78,494	90,808	104,156	117,350
Refunds	10,453	13,500	15,052	16,328	16,683
Disability insurance premiums	326	432	444	529	561
Administrative expenses	1,724	1,943	1,848	1,800	1,918
Other	1,965	1,832	2,885	(1,056)	1,326
<b>Total deductions</b>	<b>81,926</b>	<b>96,201</b>	<b>111,037</b>	<b>121,757</b>	<b>137,838</b>
<b>Change in net position</b>	<b>396,292</b>	<b>268,470</b>	<b>289,761</b>	<b>373,600</b>	<b>263,203</b>
<b>Net position at beginning of year</b>	<b>1,422,948</b>	<b>1,819,240</b>	<b>2,087,710</b>	<b>2,377,471</b>	<b>2,751,071</b>
<b>Net position at end of year</b>	<b>\$1,819,240</b>	<b>\$2,087,710</b>	<b>\$2,377,471</b>	<b>\$2,751,071</b>	<b>\$3,014,274</b>

<b>ADDITIONS</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Employer contributions <sup>2</sup>	\$79,457	\$84,456	\$89,515	\$91,780	\$86,113
Member contributions <sup>2</sup>	58,508	57,598	56,728	58,590	54,827
Purchased service	3,820	4,460	3,671	3,902	13,927
Investment income (loss)	(778,885)	381,350	355,964	53,130	368,492
Other	(2)	2	9	78	2,663
<b>Total additions</b>	<b>(637,102)</b>	<b>527,866</b>	<b>505,887</b>	<b>207,480</b>	<b>526,022</b>
<b>DEDUCTIONS</b>					
Benefit payments	132,696	150,036	165,770	179,449	195,945
Refunds	18,219	19,648	22,942	22,686	42,941
Disability insurance premiums	560	591	496	442	410
Administrative expenses	2,102	2,160	2,215	2,157	2,035
Other	2,014	2,737	5,235	2,737	2,072
<b>Total deductions</b>	<b>155,591</b>	<b>175,172</b>	<b>196,658</b>	<b>207,471</b>	<b>243,403</b>
<b>Change in net position</b>	<b>(792,693)</b>	<b>352,694</b>	<b>309,229</b>	<b>9</b>	<b>282,619</b>
<b>Net position at beginning of year</b>	<b>3,014,274</b>	<b>2,221,581</b>	<b>2,574,275</b>	<b>2,883,504</b>	<b>2,883,513</b>
<b>Net position at end of year</b>	<b>\$2,221,581</b>	<b>\$2,574,275</b>	<b>\$2,883,504</b>	<b>\$2,883,513</b>	<b>\$3,166,132</b>

<sup>1</sup> The Local Government Division Trust Fund was the Municipal Division Trust Fund prior to January 1, 2006.<sup>2</sup> Employer and Member contribution rate history is shown on pages 187–192.

## Changes in Net Position

For the Years Ended December 31  
(In Thousands of Dollars)

### Judicial Division Trust Fund

<b>ADDITIONS</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>
Employer contributions <sup>1</sup>	\$1,011	\$2,677	\$3,408	\$3,767	\$4,222
Member contributions <sup>1</sup>	2,034	2,071	2,154	2,292	2,479
Purchased service	8,388	2,203	2,993	1,814	80
Investment income	29,825	21,789	16,953	29,920	21,965
<b>Total additions</b>	<b>41,258</b>	<b>28,740</b>	<b>25,508</b>	<b>37,793</b>	<b>28,746</b>
<b>DEDUCTIONS</b>					
Benefit payments	8,467	8,806	9,868	10,755	12,396
Refunds	596	98	181	—	4
Disability insurance premiums	18	21	20	24	25
Administrative expenses	22	23	20	19	19
Other	(849)	(103)	(742)	(3)	(2,908)
<b>Total deductions</b>	<b>8,254</b>	<b>8,845</b>	<b>9,347</b>	<b>10,795</b>	<b>9,536</b>
<b>Change in net position</b>	<b>33,004</b>	<b>19,895</b>	<b>16,161</b>	<b>26,998</b>	<b>19,210</b>
<b>Net position at beginning of year</b>	<b>125,605</b>	<b>158,609</b>	<b>178,504</b>	<b>194,665</b>	<b>221,663</b>
<b>Net position at end of year</b>	<b>\$158,609</b>	<b>\$178,504</b>	<b>\$194,665</b>	<b>\$221,663</b>	<b>\$240,873</b>

<b>ADDITIONS</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Employer contributions <sup>1</sup>	\$5,105	\$5,793	\$5,654	\$5,430	\$5,922
Member contributions <sup>1</sup>	2,806	3,001	3,465	4,120	3,628
Purchased service	392	(3)	109	5	180
Investment income (loss)	(61,192)	29,977	27,400	4,105	28,063
Other	—	—	—	6	2,556
<b>Total additions</b>	<b>(52,889)</b>	<b>38,768</b>	<b>36,628</b>	<b>13,666</b>	<b>40,349</b>
<b>DEDUCTIONS</b>					
Benefit payments	13,356	15,011	15,394	16,809	17,606
Refunds	—	30	104	513	605
Disability insurance premiums	26	31	26	26	27
Administrative expenses	21	22	61	61	61
Other	(322)	(1,778)	(2,491)	(1,043)	22
<b>Total deductions</b>	<b>13,081</b>	<b>13,316</b>	<b>13,094</b>	<b>16,366</b>	<b>18,321</b>
<b>Change in net position</b>	<b>(65,970)</b>	<b>25,452</b>	<b>23,534</b>	<b>(2,700)</b>	<b>22,028</b>
<b>Net position at beginning of year</b>	<b>240,873</b>	<b>174,903</b>	<b>200,355</b>	<b>223,889</b>	<b>221,189</b>
<b>Net position at end of year</b>	<b>\$174,903</b>	<b>\$200,355</b>	<b>\$223,889</b>	<b>\$221,189</b>	<b>\$243,217</b>

<sup>1</sup> Employer and Member contribution rate history is shown on pages 187–192.



**Changes in Net Position**

For the Years Ended December 31  
(In Thousands of Dollars)

Denver Public Schools Division Trust Fund<sup>1</sup>

<b>ADDITIONS</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Employer contributions <sup>2</sup>	\$6,493	\$12,859	\$14,703
Member contributions <sup>2</sup>	36,824	39,422	41,124
Plan transfer	2,750,566	—	—
Purchased service	2,056	1,792	1,924
Investment income	367,145	55,081	354,867
Other	5	77	146
<b>Total additions</b>	<b>3,163,089</b>	<b>109,231</b>	<b>412,764</b>
<b>DEDUCTIONS</b>			
Benefit payments	215,825	221,113	228,742
Refunds	3,029	4,412	5,821
Disability insurance premiums	311	238	220
Administrative expenses	2,944	1,914	1,919
Other	54	2,409	55
<b>Total deductions</b>	<b>222,163</b>	<b>230,086</b>	<b>236,757</b>
<b>Change in net position</b>	<b>2,940,926</b>	<b>(120,855)</b>	<b>176,007</b>
<b>Net position at beginning of year</b>	<b>—</b>	<b>2,940,926</b>	<b>2,820,071</b>
<b>Net position at end of year</b>	<b>\$2,940,926</b>	<b>\$2,820,071</b>	<b>\$2,996,078</b>

<sup>1</sup> The Denver Public Schools (DPS) Division Trust Fund was established on January 1, 2010, and received the net assets of the Denver Public Schools Retirement System (DPSRS).

<sup>2</sup> Employer and Member contribution rate history is shown on pages 187–192.

## Changes in Net Position

For the Years Ended December 31  
(In Thousands of Dollars)

### Voluntary Investment Program

<b>ADDITIONS</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006<sup>1</sup></b>	<b>2007<sup>1</sup></b>
Employer contributions	\$50,144	\$13,494	\$2,484	\$2,724	\$3,252
Member contributions	189,054	179,909	182,257	165,641	171,630
Plan transfer	—	79,329	—	—	—
Investment income	157,589	110,598	96,423	166,668	125,576
Other	1,918	2,388	2,964	3,396	6,317
<b>Total additions</b>	<b>398,705</b>	<b>385,718</b>	<b>284,128</b>	<b>338,429</b>	<b>306,775</b>
<b>DEDUCTIONS</b>					
Refunds	219,157	90,618	187,557	108,477	92,607
Administrative expenses	3,382	4,390	4,298	4,706	5,482
<b>Total deductions</b>	<b>222,539</b>	<b>95,008</b>	<b>191,855</b>	<b>113,183</b>	<b>98,089</b>
<b>Change in net position</b>	<b>176,166</b>	<b>290,710</b>	<b>92,273</b>	<b>225,246</b>	<b>208,686</b>
<b>Net position at beginning of year</b>	<b>737,849</b>	<b>914,015</b>	<b>1,204,725</b>	<b>1,296,998</b>	<b>1,522,244</b>
<b>Net position at end of year</b>	<b>\$914,015</b>	<b>\$1,204,725</b>	<b>\$1,296,998</b>	<b>\$1,522,244</b>	<b>\$1,730,930</b>

<b>ADDITIONS</b>	<b>2008<sup>1</sup></b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Employer contributions	\$3,866	\$3,383	\$3,827	\$3,610	\$3,697
Member contributions	157,937	134,645	132,674	126,331	119,013
Plan transfer	—	18,358	—	—	—
Investment income (loss)	(500,862)	291,029	194,500	(5,752)	236,775
Other	4,472	3,654	3,697	3,298	2,075
<b>Total additions</b>	<b>(334,587)</b>	<b>451,069</b>	<b>334,698</b>	<b>127,487</b>	<b>361,560</b>
<b>DEDUCTIONS</b>					
Refunds	87,571	75,351	102,056	133,719	144,171
Administrative expenses	4,965	4,664	5,178	4,717	2,827
Other	—	—	—	29	234
<b>Total deductions</b>	<b>92,536</b>	<b>80,015</b>	<b>107,234</b>	<b>138,465</b>	<b>147,232</b>
<b>Change in net position</b>	<b>(427,123)</b>	<b>371,054</b>	<b>227,464</b>	<b>(10,978)</b>	<b>214,328</b>
<b>Net position at beginning of year</b>	<b>1,730,930</b>	<b>1,303,807</b>	<b>1,674,861</b>	<b>1,902,325</b>	<b>1,891,347</b>
<b>Net position at end of year</b>	<b>\$1,303,807</b>	<b>\$1,674,861</b>	<b>\$1,902,325</b>	<b>\$1,891,347</b>	<b>\$2,105,675</b>

<sup>1</sup> To improve trend analysis, the year has been restated to remove the Defined Contribution Retirement Plan which was reported as a component of the Voluntary Investment Program. For the years 2006–2008, the Defined Contribution Plan was a component plan in the Voluntary Investment Program Trust. In 2009, the Defined Contribution Retirement Plan became a separate trust.

**Changes in Net Position**

For the Years Ended December 31  
(In Thousands of Dollars)

## Defined Contribution Retirement Plan

<b>ADDITIONS</b>	<b>2006<sup>1</sup></b>	<b>2007<sup>1</sup></b>	<b>2008<sup>1</sup></b>	<b>2009</b>	<b>2010</b>
Employer contributions	\$329	\$1,104	\$1,946	\$5,899	\$6,428
Member contributions	260	880	1,564	4,652	6,896
Plan transfer	—	—	—	18,374	11
Investment income (loss)	14	69	(841)	5,060	5,519
Other	—	49	3	14	35
<b>Total additions</b>	<b>603</b>	<b>2,102</b>	<b>2,672</b>	<b>33,999</b>	<b>18,889</b>
<b>DEDUCTIONS</b>					
Refunds	8	148	215	1,377	2,886
Administrative expenses	—	2	8	143	94
<b>Total deductions</b>	<b>8</b>	<b>150</b>	<b>223</b>	<b>1,520</b>	<b>2,980</b>
<b>Change in net position</b>	<b>595</b>	<b>1,952</b>	<b>2,449</b>	<b>32,479</b>	<b>15,909</b>
<b>Net position at beginning of year</b>	<b>—</b>	<b>595</b>	<b>2,547</b>	<b>4,996</b>	<b>37,475</b>
<b>Net position at end of year</b>	<b>\$595</b>	<b>\$2,547</b>	<b>\$4,996</b>	<b>\$37,475</b>	<b>\$53,384</b>

<b>ADDITIONS</b>	<b>2011</b>	<b>2012</b>
Employer contributions	\$7,034	\$7,997
Member contributions	9,732	8,364
Investment income (loss)	(1,130)	9,046
Other	40	2
<b>Total additions</b>	<b>15,676</b>	<b>25,409</b>
<b>DEDUCTIONS</b>		
Refunds	5,176	4,869
Administrative expenses	282	848
Other	5	22
<b>Total deductions</b>	<b>5,463</b>	<b>5,739</b>
<b>Change in net position</b>	<b>10,213</b>	<b>19,670</b>
<b>Net position at beginning of year</b>	<b>53,384</b>	<b>63,597</b>
<b>Net position at end of year</b>	<b>\$63,597</b>	<b>\$83,267</b>

<sup>1</sup> To improve trend analysis, the year has been restated to report changes in fiduciary net position which were included in the Voluntary Investment Program. For the years 2006–2008, the Defined Contribution Plan was a component plan in the Voluntary Investment Program Trust. In 2009, the Defined Contribution Retirement Plan became a separate trust.

## Changes in Net Position

For the Years Ended December 31  
(In Thousands of Dollars)

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### Deferred Compensation Plan<sup>1</sup>

<b>ADDITIONS</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Employer contributions	\$12	\$12	\$51	\$14
Member contributions	23,875	44,203	42,253	39,851
Plan transfer	336,504	24	4	—
Investment income	40,443	42,232	10,335	49,344
Other	1,820	917	984	354
<b>Total additions</b>	<b>402,654</b>	<b>87,388</b>	<b>53,627</b>	<b>89,563</b>
<b>DEDUCTIONS</b>				
Refunds	8,745	20,869	27,524	27,627
Administrative expenses	507	822	834	1,105
Other	50	168	185	278
<b>Total deductions</b>	<b>9,302</b>	<b>21,859</b>	<b>28,543</b>	<b>29,010</b>
<b>Change in net position</b>	<b>393,352</b>	<b>65,529</b>	<b>25,084</b>	<b>60,553</b>
<b>Net position at beginning of year</b>	<b>—</b>	<b>393,352</b>	<b>458,881</b>	<b>483,965</b>
<b>Net position at end of year</b>	<b>\$393,352</b>	<b>\$458,881</b>	<b>\$483,965</b>	<b>\$544,518</b>

<sup>1</sup> On July 1, 2009, the State's 457 Plan assets transferred to PERA, which became the administrator of that plan under the provisions of SB 09-66.

**Changes in Net Position**

For the Years Ended December 31  
(In Thousands of Dollars)

**Health Care Trust Fund**

<b>ADDITIONS</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>
Employer contributions <sup>1</sup>	\$64,443	\$60,465	\$61,193	\$64,547	\$68,508
Retiree health care premiums	55,668	59,453	62,872	85,673	96,345
Federal health care subsidies	—	—	—	12,481	12,397
Investment income	33,445	23,117	17,665	30,920	23,868
Other	2,118	16,116	13,609	12,997	12,454
<b>Total additions</b>	<b>155,674</b>	<b>159,151</b>	<b>155,339</b>	<b>206,618</b>	<b>213,572</b>
<b>DEDUCTIONS</b>					
Benefit payments	120,814	130,917	135,550	164,755	159,939
Administrative expenses	6,157	6,634	8,216	8,145	11,051
<b>Total deductions</b>	<b>126,971</b>	<b>137,551</b>	<b>143,766</b>	<b>172,900</b>	<b>170,990</b>
<b>Change in net position</b>	<b>28,703</b>	<b>21,600</b>	<b>11,573</b>	<b>33,718</b>	<b>42,582</b>
<b>Net position at beginning of year</b>	<b>131,256</b>	<b>159,959</b>	<b>181,559</b>	<b>193,132</b>	<b>226,850</b>
<b>Net position at end of year</b>	<b>\$159,959</b>	<b>\$181,559</b>	<b>\$193,132</b>	<b>\$226,850</b>	<b>\$269,432</b>

<b>ADDITIONS</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Employer contributions <sup>1</sup>	\$72,599	\$74,073	\$74,047	\$73,449	\$72,553
Retiree health care premiums	102,644	106,903	110,158	108,689	107,104
Federal health care subsidies	13,743	13,633	25,751	14,151	14,198
Investment income (loss)	(72,423)	35,483	34,676	5,153	36,710
Other	12,803	12,721	16,035	10,574	11,668
<b>Total additions</b>	<b>129,366</b>	<b>242,813</b>	<b>260,667</b>	<b>212,016</b>	<b>242,233</b>
<b>DEDUCTIONS</b>					
Benefit payments	196,769	192,656	192,044	203,419	218,768
Administrative expenses	11,838	12,170	11,131	12,481	13,514
<b>Total deductions</b>	<b>208,607</b>	<b>204,826</b>	<b>203,175</b>	<b>215,900</b>	<b>232,282</b>
<b>Change in net position</b>	<b>(79,241)</b>	<b>37,987</b>	<b>57,492</b>	<b>(3,884)</b>	<b>9,951</b>
<b>Net position at beginning of year</b>	<b>269,432</b>	<b>190,191</b>	<b>228,178</b>	<b>285,670</b>	<b>281,786</b>
<b>Net position at end of year</b>	<b>\$190,191</b>	<b>\$228,178</b>	<b>\$285,670</b>	<b>\$281,786</b>	<b>\$291,737</b>

<sup>1</sup> Employer contribution rate history is shown on page 192.

## Changes in Net Position

For the Years Ended December 31  
(In Thousands of Dollars)

### Denver Public Schools Health Care Trust Fund<sup>1</sup>

ADDITIONS	2010	2011	2012
Employer contributions <sup>2</sup>	\$4,762	\$5,029	\$5,243
Plan transfer	13,510	—	—
Retiree health care premium	4,747	4,529	4,295
Federal health care subsidies	1,252	499	488
Investment income	1,992	424	1,800
Other	109	374	216
<b>Total additions</b>	<b>26,372</b>	<b>10,855</b>	<b>12,042</b>
<b>DEDUCTIONS</b>			
Benefit payments	11,012	10,770	11,027
Administrative expenses	569	501	547
<b>Total deductions</b>	<b>11,581</b>	<b>11,271</b>	<b>11,574</b>
<b>Change in net position</b>	<b>14,791</b>	<b>(416)</b>	<b>468</b>
<b>Net position at beginning of year</b>	<b>—</b>	<b>14,791</b>	<b>14,375</b>
<b>Net position at end of year</b>	<b>\$14,791</b>	<b>\$14,375</b>	<b>\$14,843</b>

<sup>1</sup> The Denver Public Schools Health Care Trust Fund (DPS HCTF) was established on January 1, 2010, and received the balance of the Denver Public Schools Retiree Health Benefit Trust.

<sup>2</sup> Employer contribution rate history is shown on page 192.

**Changes in Net Position**

For the Years Ended December 31  
(In Thousands of Dollars)

## Life Insurance Reserve

<b>ADDITIONS</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>
Life insurance premiums	\$—	\$—	\$7,351	\$8,950	\$9,075
Investment income	2,991	1,932	1,652	2,625	2,851
<b>Total additions</b>	<b>2,991</b>	<b>1,932</b>	<b>9,003</b>	<b>11,575</b>	<b>11,926</b>
<b>DEDUCTIONS</b>					
Life insurance premiums and claims	1,899	1,610	5,571	8,653	7,961
Administrative expenses	271	(456)	2,486	1,100	1,732
<b>Total deductions</b>	<b>2,170</b>	<b>1,154</b>	<b>8,057</b>	<b>9,753</b>	<b>9,693</b>
<b>Change in net position</b>	<b>821</b>	<b>778</b>	<b>946</b>	<b>1,822</b>	<b>2,233</b>
<b>Net position at beginning of year</b>	<b>12,155</b>	<b>12,976</b>	<b>13,754</b>	<b>14,700</b>	<b>16,522</b>
<b>Net position at end of year</b>	<b>\$12,976</b>	<b>\$13,754</b>	<b>\$14,700</b>	<b>\$16,522</b>	<b>\$18,755</b>
<b>ADDITIONS</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Life insurance premiums	\$1,772	\$—	\$—	\$—	\$—
Investment income (loss)	(4,693)	2,496	2,280	503	2,020
<b>Total additions</b>	<b>(2,921)</b>	<b>2,496</b>	<b>2,280</b>	<b>503</b>	<b>2,020</b>
<b>DEDUCTIONS</b>					
Life insurance premiums and claims	2,820	575	545	547	62
Administrative expenses	486	576	575	573	510
<b>Total deductions</b>	<b>3,306</b>	<b>1,151</b>	<b>1,120</b>	<b>1,120</b>	<b>572</b>
<b>Change in net position</b>	<b>(6,227)</b>	<b>1,345</b>	<b>1,160</b>	<b>(617)</b>	<b>1,448</b>
<b>Net position at beginning of year</b>	<b>18,755</b>	<b>12,528</b>	<b>13,873</b>	<b>15,033</b>	<b>14,416</b>
<b>Net position at end of year</b>	<b>\$12,528</b>	<b>\$13,873</b>	<b>\$15,033</b>	<b>\$14,416</b>	<b>\$15,864</b>

## Benefits and Refund Deductions from Net Position by Type

For the Years Ended December 31  
(In Thousands of Dollars)

### State and School Division Trust Fund<sup>1</sup>

TYPE OF BENEFIT	2003	2004	2005
Age and service benefits:			
Retirees	\$1,331,960	\$1,535,496	\$1,726,569
Disability	116,770	120,252	123,808
Survivors	20,613	21,669	22,188
<b>Total benefits</b>	<b>\$1,469,343</b>	<b>\$1,677,417</b>	<b>\$1,872,565</b>
TYPE OF REFUND			
Separation	\$91,232	\$100,608	\$109,588
Death	7,807	7,528	5,380
<b>Total refunds</b>	<b>\$99,039</b>	<b>\$108,136</b>	<b>\$114,968</b>

<sup>1</sup> The State and School Division Trust Funds merged on July 1, 1997, and separated on January 1, 2006.

### State Division Trust Fund<sup>1</sup>

TYPE OF BENEFIT	2006	2007	2008	2009	2010	2011	2012
Age and service benefits:							
Retirees	\$764,672	\$838,033	\$910,475	\$979,419	\$1,031,628	\$1,083,722	\$1,140,055
Disability	72,548	75,212	76,056	78,799	77,830	77,715	78,689
Survivors	12,009	12,516	12,748	13,507	12,977	13,270	13,178
<b>Total benefits</b>	<b>\$849,229</b>	<b>\$925,761</b>	<b>\$999,279</b>	<b>\$1,071,725</b>	<b>\$1,122,435</b>	<b>\$1,174,707</b>	<b>\$1,231,922</b>
TYPE OF REFUND							
Separation	\$61,073	\$53,220	\$51,047	\$53,668	\$59,330	\$65,525	\$65,627
Death	3,966	2,825	5,014	3,760	9,047	3,986	3,503
Purchased service	872	533	655	988	467	579	91
<b>Total refunds</b>	<b>\$65,911</b>	<b>\$56,578</b>	<b>\$56,716</b>	<b>\$58,416</b>	<b>\$68,844</b>	<b>\$70,090</b>	<b>\$69,221</b>

<sup>1</sup> The State and School Division Trust Funds merged on July 1, 1997, and separated on January 1, 2006.

### School Division Trust Fund<sup>1</sup>

TYPE OF BENEFIT	2006	2007	2008	2009	2010	2011	2012
Age and service benefits:							
Retirees	\$1,147,787	\$1,261,407	\$1,378,531	\$1,490,293	\$1,568,637	\$1,657,071	\$1,757,279
Disability	54,971	57,054	59,019	60,532	60,920	61,150	62,140
Survivors	11,117	11,342	12,357	12,490	12,793	13,127	13,224
<b>Total benefits</b>	<b>\$1,213,875</b>	<b>\$1,329,803</b>	<b>\$1,449,907</b>	<b>\$1,563,315</b>	<b>\$1,642,350</b>	<b>\$1,731,348</b>	<b>\$1,832,643</b>
TYPE OF REFUND							
Separation	\$64,239	\$62,784	\$61,259	\$67,330	\$74,423	\$74,446	\$73,075
Death	3,198	4,455	3,530	2,725	4,206	3,676	3,815
Purchased service	1,056	471	870	855	383	421	264
<b>Total refunds</b>	<b>\$68,493</b>	<b>\$67,710</b>	<b>\$65,659</b>	<b>\$70,910</b>	<b>\$79,012</b>	<b>\$78,543</b>	<b>\$77,154</b>

<sup>1</sup> The State and School Division Trust Funds merged on July 1, 1997, and separated on January 1, 2006.



## Benefits and Refund Deductions from Net Position by Type

*For the Years Ended December 31  
(In Thousands of Dollars)*

### Local Government Division Trust Fund<sup>1</sup>

TYPE OF BENEFIT	2003	2004	2005	2006	2007
Age and service benefits:					
Retirees	\$54,380	\$65,063	\$76,586	\$89,226	\$102,239
Disability	11,616	11,957	12,692	13,107	13,376
Survivors	1,462	1,474	1,530	1,823	1,735
<b>Total benefits</b>	<b>\$67,458</b>	<b>\$78,494</b>	<b>\$90,808</b>	<b>\$104,156</b>	<b>\$117,350</b>
TYPE OF REFUND					
Separation	\$10,171	\$12,610	\$14,137	\$15,405	\$15,835
Death	282	890	915	677	647
Purchased Service	—	—	—	246	201
<b>Total refunds</b>	<b>\$10,453</b>	<b>\$13,500</b>	<b>\$15,052</b>	<b>\$16,328</b>	<b>\$16,683</b>

<sup>1</sup> The Local Government Division Trust Fund was the Municipal Division Trust Fund prior to January 1, 2006.

### Local Government Division Trust Fund<sup>1</sup>

TYPE OF BENEFIT	2008	2009	2010	2011	2012
Age and service benefits:					
Retirees	\$116,951	\$133,732	\$149,260	\$162,681	\$178,845
Disability	13,900	14,407	14,572	14,727	15,096
Survivors	1,845	1,897	1,938	2,041	2,004
<b>Total benefits</b>	<b>\$132,696</b>	<b>\$150,036</b>	<b>\$165,770</b>	<b>\$179,449</b>	<b>\$195,945</b>
TYPE OF REFUND					
Separation	\$16,742	\$18,703	\$21,999	\$21,316	\$41,696
Death	1,399	574	750	1,283	1,154
Purchased service	78	371	193	87	91
<b>Total refunds</b>	<b>\$18,219</b>	<b>\$19,648</b>	<b>\$22,942</b>	<b>\$22,686</b>	<b>\$42,941</b>

<sup>1</sup> The Local Government Division Trust Fund was the Municipal Division Trust Fund prior to January 1, 2006.

## Benefits and Refund Deductions from Net Position by Type

For the Years Ended December 31  
(In Thousands of Dollars)

### Judicial Division Trust Fund

TYPE OF BENEFIT	2003	2004	2005	2006	2007
Age and service benefits:					
Retirees	\$7,500	\$7,795	\$8,832	\$9,708	\$11,292
Disability	651	682	695	696	746
Survivors	316	329	341	351	358
<b>Total benefits</b>	<b>\$8,467</b>	<b>\$8,806</b>	<b>\$9,868</b>	<b>\$10,755</b>	<b>\$12,396</b>
TYPE OF REFUND					
Separation	\$596	\$98	\$181	\$—	\$—
Purchased service	—	—	—	—	4
<b>Total refunds</b>	<b>\$596</b>	<b>\$98</b>	<b>\$181</b>	<b>\$—</b>	<b>\$4</b>

### Judicial Division Trust Fund

TYPE OF BENEFIT	2008	2009	2010	2011	2012
Age and service benefits:					
Retirees	\$12,113	\$13,734	\$14,126	\$15,563	\$16,333
Disability	850	913	917	889	897
Survivors	393	364	351	357	376
<b>Total benefits</b>	<b>\$13,356</b>	<b>\$15,011</b>	<b>\$15,394</b>	<b>\$16,809</b>	<b>\$17,606</b>
TYPE OF REFUND					
Separation	\$—	\$30	\$104	\$513	\$250
Death	—	—	—	—	355
Purchased service	—	—	—	—	—
<b>Total refunds</b>	<b>\$—</b>	<b>\$30</b>	<b>\$104</b>	<b>\$513</b>	<b>\$605</b>

### Denver Public Schools Trust Fund<sup>1</sup>

TYPE OF BENEFIT	2010	2011	2012
Age and service benefits:			
Retirees	\$207,398	\$212,524	\$220,106
Disability	6,886	7,078	7,070
Survivors	1,541	1,511	1,566
<b>Total benefits</b>	<b>\$215,825</b>	<b>\$221,113</b>	<b>\$228,742</b>
TYPE OF REFUND			
Separation	\$2,947	\$4,322	\$5,602
Death	82	82	217
Purchased service	—	8	2
<b>Total refunds</b>	<b>\$3,029</b>	<b>\$4,412</b>	<b>\$5,821</b>

<sup>1</sup> The DPS Division Trust Fund was established on January 1, 2010, and received the net assets of DPSRS.

Member and Benefit Recipient Statistics<sup>1</sup>

(In Actual Dollars)

	STATE DIVISION	SCHOOL DIVISION	LOCAL GOVERNMENT DIVISION	JUDICIAL DIVISION	DENVER PUBLIC SCHOOLS DIVISION	TOTAL
<b>ACTIVE MEMBERS</b>						
Active members as of December 31, 2012	54,804	115,294	12,097	329	13,911	196,435
<b>RETIREMENTS DURING 2012</b>						
Disability retirements	97	122	21	—	11	251
Service retirements	1,622	2,867	658	18	260	5,425
<b>Total</b>	<b>1,719</b>	<b>2,989</b>	<b>679</b>	<b>18</b>	<b>271</b>	<b>5,676</b>
<b>RETIREMENT BENEFITS</b>						
Total receiving disability and service retirement benefits on December 31, 2011	32,189	50,675	5,134	297	6,156	94,451
Total retiring during 2012	1,719	2,989	679	18	271	5,676
Cobeneficiaries continuing after retiree's death	279	255	57	2	60	653
Returning to retirement rolls from suspension	11	24	1	—	—	36
<b>Total</b>	<b>34,198</b>	<b>53,943</b>	<b>5,871</b>	<b>317</b>	<b>6,487</b>	<b>100,816</b>
Retirees and cobeneficiaries deceased during year	1,062	1,208	152	12	227	2,661
Retirees suspending benefits to return to work	6	8	1	—	1	16
<b>Total receiving retirement benefits</b>	<b>33,130</b>	<b>52,727</b>	<b>5,718</b>	<b>305</b>	<b>6,259</b>	<b>98,139</b>
Annual retirement benefits for retirees as of December 31, 2012	\$1,242,028,764	\$1,859,801,748	\$206,349,444	\$17,893,332	\$230,126,040	\$3,556,199,328
Average monthly benefit on December 31, 2012	\$3,124	\$2,939	\$3,007	\$4,889	\$3,064	\$3,020
Average monthly benefit for all members who retired during 2012	\$2,890	\$2,425	\$2,876	\$4,841	\$2,540	\$2,633
<b>SURVIVOR BENEFITS</b>						
Survivor benefit accounts						
Total survivor being paid on December 31, 2012	865	1,050	160	14	143	2,232
Annual benefits payable to survivors as of December 31, 2012	\$17,686,368	\$16,538,760	\$2,911,320	\$438,660	\$2,732,004	\$40,307,112
<b>FUTURE BENEFITS</b>						
Future retirements to age 60 or 65	5,029	11,942	3,075	7	645	20,698
Total annual future benefits	\$48,455,400	\$80,593,971	\$41,135,835	\$231,206	\$6,618,344	\$177,034,756
Future survivor beneficiaries of inactive members	130	175	23	2	13	343
Total annual future benefits	\$1,720,356	\$1,806,408	\$313,236	\$68,736	\$150,672	\$4,059,408

<sup>1</sup> In addition, as of December 31, 2012, there was a total of 178,913 non-vested terminated members as follows: State Division—61,293; School Division—93,097; Local Government Division—20,104; Judicial Division—5; and DPS Division—4,414.

## Schedule of Average Retirement Benefits Payable—All Division Trust Funds<sup>1,2</sup>

(In Actual Dollars)

YEAR ENDED	AVERAGE MONTHLY BENEFIT	AVERAGE AGE AT RETIREMENT	AVERAGE CURRENT AGE OF RETIREES	AVERAGE YEARS OF SERVICE AT RETIREMENT
12/31/2003	\$2,140	58.2	68.4	22.0
12/31/2004	2,288	57.9	68.7	22.4
12/31/2005	2,447	58.0	68.7	23.0
12/31/2006	2,538	58.1	68.8	22.9
12/31/2007	2,658	58.0	68.9	23.1
12/31/2008	2,772	58.0	69.0	23.2
12/31/2009	2,885	58.0	69.3	23.3
12/31/2010	2,905	58.1	69.7	23.6
12/31/2011	2,966	58.1	69.9	23.6
12/31/2012	3,020	58.2	70.0	23.5

<sup>1</sup> Includes disability retirements, but not survivor benefits.

<sup>2</sup> Data prior to December 31, 2010, does not include the DPS Division.

## Schedule of Average Retirement Benefits Payable<sup>1</sup>

(In Actual Dollars)

	STATE DIVISION	SCHOOL DIVISION	LOCAL GOVERNMENT DIVISION	JUDICIAL DIVISION	DENVER PUBLIC SCHOOLS DIVISION
<i>Year Ended 12/31/2012</i>					
Average Monthly Benefit	\$3,124	\$2,939	\$3,007	\$4,889	\$3,064
Average Age at Retirement	58.0	58.2	57.7	61.2	58.8
Average Age of Current Retiree	70.4	69.7	67.5	73.7	73.3
Average Years of Service at Retirement	23.0	23.7	22.2	22.6	25.8
<i>Year Ended 12/31/2011</i>					
Average Monthly Benefit	\$3,056	\$2,895	\$2,948	\$4,739	\$3,009
Average Age at Retirement	58.0	58.2	57.5	61.0	58.7
Average Age of Current Retiree	70.3	69.5	67.8	73.7	73.2
Average Years of Service at Retirement	23.0	23.8	22.3	22.4	26.0

<sup>1</sup> Includes disability retirements, but not survivor benefits.

## Colorado PERA Benefit Payments—All Division Trust Funds

As of December 31, 2012  
(In Actual Dollars)

At the end of 2012, PERA was paying benefits to more than 100,000 retired public employees and their beneficiaries who received an average benefit of \$2,983<sup>1</sup> per month. For most benefit recipients, this is the only source of income in retirement as most PERA benefit recipients and their beneficiaries do not qualify for Social Security payments. The median monthly PERA benefit is \$2,775<sup>1</sup> (\$33,300 a year), which means that half of all monthly benefits paid are lower than \$2,775 and half are higher than that amount.

The PERA service retirement formula for calculating benefits, specified in State law, is 2.5 percent multiplied by years of service multiplied by Highest Average Salary (HAS). HAS<sup>2</sup> is also defined in State law as one-twelfth of the average of the highest annual salaries on which contributions were paid that are associated with three periods of 12 consecutive months of service credit. The three 12-month periods do not have to be consecutive, nor do they have to be the last three years of employment.

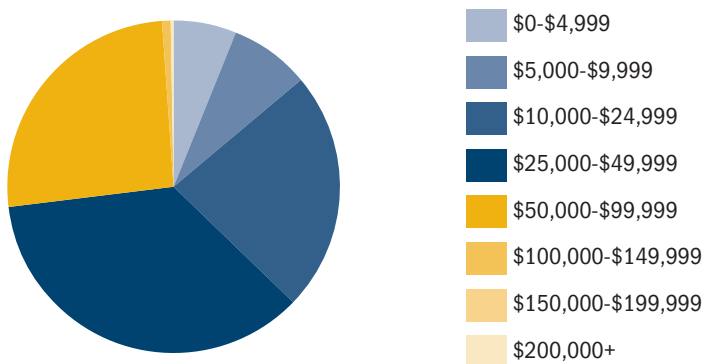
These three periods are tied to a fourth 12-month period which becomes the base year for the year-to-year salary increase limitation for HAS calculation purposes. The year-to-year limit for members who were eligible to retire on January 1, 2011, and hired before January 1, 2007, is 15 percent. All other members are subject to an 8 percent year-to-year limit in their HAS calculation. This annual limit applied to salaries in the HAS years is designed to moderate salary “spiking.”

Approximately three out of every four PERA benefit recipients receive less than \$50,000 a year in retirement, as the graph below demonstrates. Less than 1 percent (851) of PERA benefit recipients receive an annual benefit payment of \$100,000 or more. Generally, these benefit recipients had high salaries and a significant number of years of service credit.

<sup>1</sup> Does not include benefits that ended in 2012 or retirements suspended in 2012. Includes only continuing benefits at the end of 2012, excluding amounts paid under the Replacement Benefit Arrangements.

<sup>2</sup> Some members of the DPS benefit structure and members in the Judicial Division have different HAS calculations.

### PERA Benefit Payments by Dollar Amount of Annual Benefit/Number of Benefit Recipients in that Range



BENEFIT RANGE	NUMBER OF BENEFIT RECIPIENTS <sup>1</sup>
\$0-\$4,999	6,172
\$5,000-\$9,999	7,951
\$10,000-\$24,999	23,328
\$25,000-\$49,999	35,880
\$50,000-\$99,999	26,189
\$100,000-\$149,999	804
\$150,000-\$199,999	40
\$200,000+	7
<b>Total Benefit Recipients</b>	<b>100,371</b>

<sup>1</sup> Does not include 343 deferred survivors.

## Colorado PERA Benefit Payments—All Division Trust Funds

As of December 31, 2012  
(In Actual Dollars)

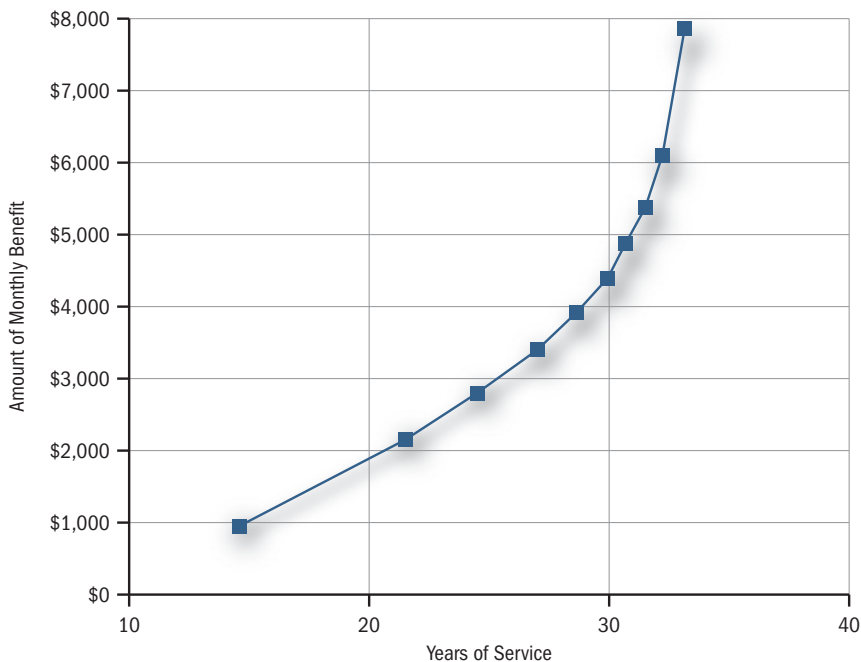
### Benefit Payments by Decile

Another way to examine the data is to group benefit recipients and the benefits they receive into benefit payment ranges as a percentage of the total. The table below shows that, for the one-third of PERA benefit recipients (32,822) in the lowest decile, the average benefit is \$11,496 a year. This group retired at an average age of 59 with over 14½ years of service credit. For the top decile, on the other end of the scale, the average benefit is \$94,656 a year. However, this group, on average, had over 33 years of service credit, which is more than twice the length of the average service credit of those in the lowest decile. For the 5,676 new retirees in 2012, the average monthly benefit is \$2,633. These members retired at an average age of 60 with 21.37 years of service credit.

DECILE	NUMBER OF BENEFIT RECIPIENTS <sup>1</sup>	PERCENT OF BENEFIT RECIPIENTS	AVERAGE MONTHLY BENEFIT	AVERAGE AGE AT RETIREMENT	AVERAGE SERVICE CREDIT
1%–10%	32,822	32.70%	\$958	59	14.60
11%–20%	13,611	13.56%	2,200	57	21.80
21%–30%	10,479	10.44%	2,858	57	24.84
31%–40%	8,788	8.76%	3,407	57	27.04
41%–50%	7,643	7.61%	3,918	57	28.72
51%–60%	6,810	6.79%	4,397	57	29.89
61%–70%	6,147	6.12%	4,871	57	30.74
71%–80%	5,569	5.55%	5,377	57	31.44
81%–90%	4,895	4.88%	6,117	57	32.20
91%–100%	3,607	3.59%	7,888	57	33.12
<b>Total</b>	<b>100,371</b>	<b>100.00%</b>	<b>2,986</b>	<b>58</b>	<b>23.29</b>

<sup>1</sup> Does not include 343 deferred survivors.

### Average Monthly Benefit Payment by Years of Service Credit



## Schedule of Retirees and Survivors by Types of Benefits

As of December 31, 2012

### Types of Benefits:

- 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 future benefit.
- 6—Former member with future benefit.

### Option Selected:

Retirees select one of the following options at retirement:

- 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. (No longer offered to members retiring.)

### Surviving Cobeneficiary:

Retiree has predeceased the cobeneficiary.

### Surviving Retiree:

Cobeneficiary has predeceased the retiree.

### State Division

AMOUNT OF BENEFIT (IN ACTUAL DOLLARS)	TYPES OF BENEFITS						
	TOTAL (COLUMNS 1-5)	1	2	3	4	5	6
\$1–\$1,000	4,632	3,910	362	21	269	70	3,741
\$1,001–\$2,000	6,942	4,887	1,692	40	271	52	972
\$2,001–\$3,000	7,161	5,892	1,124	23	120	2	213
\$3,001–\$4,000	5,719	5,416	223	27	48	5	65
\$4,001–\$5,000	4,115	4,033	54	18	10	—	25
\$5,001+	5,556	5,521	16	13	5	1	13
<b>Total</b>	<b>34,125</b>	<b>29,659</b>	<b>3,471</b>	<b>142</b>	<b>723</b>	<b>130</b>	<b>5,029</b>

AMOUNT OF BENEFIT <sup>1</sup> (IN ACTUAL DOLLARS)	OPTION SELECTED					
	1	2	3	4	SURVIVING COBENEFICIARY	SURVIVING RETIREE
\$1–\$1,000	2,647	258	601	8	692	66
\$1,001–\$2,000	3,658	713	1,079	9	980	140
\$2,001–\$3,000	3,745	1,055	1,418	18	673	107
\$3,001–\$4,000	2,850	1,065	1,289	9	365	61
\$4,001–\$5,000	1,940	858	1,048	6	207	28
\$5,001+	2,500	1,289	1,533	8	177	30
<b>Total</b>	<b>17,340</b>	<b>5,238</b>	<b>6,968</b>	<b>58</b>	<b>3,094</b>	<b>432</b>

<sup>1</sup> For Types of Benefits 1 and 2 above.

## Schedule of Retirees and Survivors by Types of Benefits

As of December 31, 2012

### Types of Benefits:

- 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 future benefit.
- 6—Former member with future benefit.

### Option Selected:

Retirees select one of the following options at retirement:

- 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. (No longer offered to members retiring.)

### Surviving Cobeneficiary:

Retiree has predeceased the cobeneficiary.

### Surviving Retiree:

Cobeneficiary has predeceased the retiree.

### School Division

AMOUNT OF BENEFIT (IN ACTUAL DOLLARS)	TYPES OF BENEFITS						
	TOTAL (COLUMNS 1-5)	1	2	3	4	5	6
\$1–\$1,000	11,173	9,656	856	41	498	122	10,398
\$1,001–\$2,000	9,145	7,670	1,148	20	268	39	1,264
\$2,001–\$3,000	8,874	8,086	647	19	114	8	213
\$3,001–\$4,000	8,398	8,073	266	17	36	6	51
\$4,001–\$5,000	8,188	8,072	92	14	10	—	8
\$5,001+	8,174	8,138	23	8	5	—	8
<b>Total</b>	<b>53,952</b>	<b>49,695</b>	<b>3,032</b>	<b>119</b>	<b>931</b>	<b>175</b>	<b>11,942</b>

AMOUNT OF BENEFIT <sup>1</sup> (IN ACTUAL DOLLARS)	OPTION SELECTED					
	1	2	3	4	SURVIVING COBENEFICIARY	SURVIVING RETIREE
\$1–\$1,000	7,245	751	1,448	9	932	127
\$1,001–\$2,000	5,410	1,138	1,331	14	794	131
\$2,001–\$3,000	5,229	1,468	1,381	14	540	101
\$3,001–\$4,000	4,916	1,718	1,389	14	257	45
\$4,001–\$5,000	4,658	1,881	1,415	9	170	31
\$5,001+	5,196	1,749	1,099	10	97	10
<b>Total</b>	<b>32,654</b>	<b>8,705</b>	<b>8,063</b>	<b>70</b>	<b>2,790</b>	<b>445</b>

<sup>1</sup> For Types of Benefits 1 and 2 above.



## Schedule of Retirees and Survivors by Types of Benefits

As of December 31, 2012

### Types of Benefits:

- 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 future benefit.
- 6—Former member with future benefit.

### Option Selected:

Retirees select one of the following options at retirement:

- 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. (No longer offered to members retiring.)

### Surviving Cobeneficiary:

Retiree has predeceased the cobeneficiary.

### Surviving Retiree:

Cobeneficiary has predeceased the retiree.

### Local Government Division

AMOUNT OF BENEFIT (IN ACTUAL DOLLARS)	TOTAL (COLUMNS 1-5)	TYPES OF BENEFITS					
		1	2	3	4	5	6
\$1–\$1,000	990	844	75	3	55	13	1,902
\$1,001–\$2,000	1,347	921	359	6	53	8	723
\$2,001–\$3,000	1,099	867	202	13	16	1	288
\$3,001–\$4,000	888	839	40	5	4	—	105
\$4,001–\$5,000	651	636	12	2	—	1	44
\$5,001+	926	920	3	2	1	—	13
<b>Total</b>	<b>5,901</b>	<b>5,027</b>	<b>691</b>	<b>31</b>	<b>129</b>	<b>23</b>	<b>3,075</b>

AMOUNT OF BENEFIT <sup>1</sup> (IN ACTUAL DOLLARS)	OPTION SELECTED				SURVIVING COBENEFICIARY	SURVIVING RETIREE
	1	2	3	4		
\$1–\$1,000	567	69	138	1	134	10
\$1,001–\$2,000	678	160	265	4	161	12
\$2,001–\$3,000	546	183	240	1	84	15
\$3,001–\$4,000	431	190	221	—	32	5
\$4,001–\$5,000	303	156	168	—	21	—
\$5,001+	393	222	288	—	18	2
<b>Total</b>	<b>2,918</b>	<b>980</b>	<b>1,320</b>	<b>6</b>	<b>450</b>	<b>44</b>

<sup>1</sup> For Types of Benefits 1 and 2 above.

## Schedule of Retirees and Survivors by Types of Benefits

As of December 31, 2012

### Types of Benefits:

- 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 future benefit.
- 6—Former member with future benefit.

### Option Selected:

Retirees select one of the following options at retirement:

- 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. (No longer offered to members retiring.)

### Surviving Cobeneficiary:

Retiree has predeceased the cobeneficiary.

### Surviving Retiree:

Cobeneficiary has predeceased the retiree.

### Judicial Division

AMOUNT OF BENEFIT (IN ACTUAL DOLLARS)	TOTAL (COLUMNS 1-5)	TYPES OF BENEFITS					
		1	2	3	4	5	6
\$1–\$1,000	17	16	1	—	—	—	1
\$1,001–\$2,000	34	27	2	—	5	—	2
\$2,001–\$3,000	33	27	2	—	3	1	—
\$3,001–\$4,000	38	31	2	—	4	1	3
\$4,001–\$5,000	44	35	7	1	1	—	1
\$5,001+	155	150	5	—	—	—	—
<b>Total</b>	<b>321</b>	<b>286</b>	<b>19</b>	<b>1</b>	<b>13</b>	<b>2</b>	<b>7</b>

AMOUNT OF BENEFIT <sup>1</sup> (IN ACTUAL DOLLARS)	OPTION SELECTED				SURVIVING COBENEFICIARY	SURVIVING RETIREE
	1	2	3	4		
\$1–\$1,000	5	1	3	—	8	—
\$1,001–\$2,000	9	—	6	—	13	1
\$2,001–\$3,000	5	7	8	—	9	—
\$3,001–\$4,000	7	6	10	—	10	—
\$4,001–\$5,000	6	6	20	1	9	—
\$5,001+	50	38	60	—	7	—
<b>Total</b>	<b>82</b>	<b>58</b>	<b>107</b>	<b>1</b>	<b>56</b>	<b>1</b>

<sup>1</sup> For Types of Benefits 1 and 2 above.

## Schedule of Retirees and Survivors by Types of Benefits

As of December 31, 2012

### Types of Benefits:

- 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 future benefit.
- 6—Former member with future benefit.

### Option Selected:

Retirees select one of the following options at retirement:

- 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. (No longer offered to members retiring.)

### Surviving Cobeneficiary:

Retiree has predeceased the cobeneficiary.

### Surviving Retiree:

Cobeneficiary has predeceased the retiree.

### Denver Public Schools Division

AMOUNT OF BENEFIT (IN ACTUAL DOLLARS)	TOTAL (COLUMNS 1-5)	TYPES OF BENEFITS					
		1	2	3	4	5	6
\$1–\$1,000	708	540	101	—	58	9	456
\$1,001–\$2,000	1,208	1,039	130	4	32	3	161
\$2,001–\$3,000	1,241	1,140	67	14	19	1	23
\$3,001–\$4,000	1,456	1,409	36	7	4	—	5
\$4,001–\$5,000	1,172	1,162	6	2	2	—	—
\$5,001+	630	625	4	1	—	—	—
<b>Total</b>	<b>6,415</b>	<b>5,915</b>	<b>344</b>	<b>28</b>	<b>115</b>	<b>13</b>	<b>645</b>

AMOUNT OF BENEFIT <sup>1</sup> (IN ACTUAL DOLLARS)	OPTION SELECTED <sup>2</sup>				SURVIVING COBENEFICIARY	SURVIVING RETIREE	COBENEFICIARIES BOTH DECEASED
	1	2	3	4			
\$1–\$1,000	379	28	129	—	79	26	—
\$1,001–\$2,000	661	77	243	—	131	52	5
\$2,001–\$3,000	588	99	332	—	119	67	2
\$3,001–\$4,000	669	109	473	—	117	75	2
\$4,001–\$5,000	517	103	410	—	80	57	1
\$5,001+	282	55	228	—	42	21	1
<b>Total</b>	<b>3,096</b>	<b>471</b>	<b>1,815</b>	<b>—</b>	<b>568</b>	<b>298</b>	<b>11</b>

<sup>1</sup> For Types of Benefits 1 and 2 above.

<sup>2</sup> Below are the equivalent DPS benefit structure options:  
 PERA Option 1 = Options A, B, and D (D is discontinued)  
 PERA Option 2 = Options P2 and E (E is discontinued)  
 PERA Option 3 = Options P3 and C (C is discontinued)

## Schedule of Average Benefit Payments

(In Actual Dollars)

State Division<sup>1</sup>

YEAR RETIRED	YEARS OF SERVICE CREDIT					
	0-10	10-15	15-20	20-25	25-30	30+
<b>Period 1/1/2012 to 12/31/2012</b>						
Average monthly benefit	\$535	\$1,259	\$2,121	\$2,855	\$4,126	\$5,035
Average highest average salary	\$3,140	\$4,141	\$4,661	\$5,248	\$5,969	\$6,268
Number of service retirees	242	196	206	284	351	343
<b>Period 1/1/2011 to 12/31/2011</b>						
Average monthly benefit	\$571	\$1,214	\$1,956	\$2,863	\$4,096	\$5,307
Average highest average salary	\$3,163	\$4,027	\$4,413	\$5,181	\$6,002	\$6,661
Number of service retirees	237	130	143	237	331	305
<b>Period 1/1/2010 to 12/31/2010</b>						
Average monthly benefit	\$559	\$1,089	\$2,200	\$2,816	\$4,011	\$5,156
Average highest average salary	\$3,105	\$3,504	\$4,923	\$5,102	\$5,983	\$6,394
Number of service retirees	205	127	164	305	430	362
<b>Period 1/1/2009 to 12/31/2009</b>						
Average monthly benefit	\$474	\$1,160	\$1,952	\$2,848	\$3,974	\$5,087
Average highest average salary	\$2,794	\$3,750	\$4,397	\$5,159	\$5,790	\$6,426
Number of service retirees	156	129	143	241	406	361
<b>Period 1/1/2008 to 12/31/2008</b>						
Average monthly benefit	\$461	\$1,049	\$1,774	\$2,437	\$3,499	\$4,672
Average highest average salary	\$2,691	\$3,608	\$4,319	\$4,716	\$5,428	\$6,031
Number of service retirees	137	122	106	276	294	530
<b>Period 1/1/2007 to 12/31/2007</b>						
Average monthly benefit	\$482	\$978	\$1,576	\$2,415	\$3,267	\$4,469
Average highest average salary	\$2,924	\$3,477	\$3,848	\$4,631	\$5,088	\$5,748
Number of service retirees	147	105	100	272	321	583
<b>Period 1/1/2006 to 12/31/2006</b>						
Average monthly benefit	\$442	\$889	\$1,568	\$2,235	\$3,224	\$4,391
Average highest average salary	\$2,748	\$3,097	\$3,927	\$4,319	\$5,150	\$5,694
Number of service retirees	147	82	86	266	327	658

<sup>1</sup> Information not available for years prior to 2006.

## Schedule of Average Benefit Payments

(In Actual Dollars)

### School Division<sup>1</sup>

YEAR RETIRED	YEARS OF SERVICE CREDIT					
	0-10	10-15	15-20	20-25	25-30	30+
<b>Period 1/1/2012 to 12/31/2012</b>						
Average monthly benefit	\$420	\$815	\$1,632	\$2,411	\$3,682	\$4,592
Average highest average salary	\$2,392	\$2,800	\$3,546	\$4,368	\$5,370	\$5,791
Number of service retirees	461	349	380	534	634	509
<b>Period 1/1/2011 to 12/31/2011</b>						
Average monthly benefit	\$419	\$806	\$1,625	\$2,430	\$3,617	\$4,632
Average highest average salary	\$2,461	\$2,683	\$3,526	\$4,344	\$5,235	\$5,804
Number of service retirees	407	273	334	506	651	497
<b>Period 1/1/2010 to 12/31/2010</b>						
Average monthly benefit	\$424	\$780	\$1,543	\$2,393	\$3,603	\$4,602
Average highest average salary	\$2,512	\$2,500	\$3,336	\$4,243	\$5,207	\$5,722
Number of service retirees	353	252	305	585	755	601
<b>Period 1/1/2009 to 12/31/2009</b>						
Average monthly benefit	\$410	\$825	\$1,671	\$2,384	\$3,508	\$4,515
Average highest average salary	\$2,269	\$2,663	\$3,512	\$4,246	\$5,047	\$5,632
Number of service retirees	301	191	232	459	618	495
<b>Period 1/1/2008 to 12/31/2008</b>						
Average monthly benefit	\$382	\$706	\$1,238	\$2,183	\$2,994	\$4,313
Average highest average salary	\$2,427	\$2,534	\$2,948	\$4,125	\$4,567	\$5,554
Number of service retirees	240	197	156	523	553	847
<b>Period 1/1/2007 to 12/31/2007</b>						
Average monthly benefit	\$339	\$729	\$1,143	\$2,046	\$2,980	\$4,198
Average highest average salary	\$2,190	\$2,593	\$2,789	\$3,871	\$4,553	\$5,409
Number of service retirees	240	170	156	499	567	961
<b>Period 1/1/2006 to 12/31/2006</b>						
Average monthly benefit	\$353	\$561	\$1,131	\$1,892	\$2,924	\$4,120
Average highest average salary	\$2,169	\$1,948	\$2,765	\$2,561	\$4,488	\$5,382
Number of service retirees	207	167	151	510	531	1,024

<sup>1</sup> Information not available for years prior to 2006.

## Schedule of Average Benefit Payments

(In Actual Dollars)

### Local Government Division<sup>1</sup>

YEAR RETIRED	YEARS OF SERVICE CREDIT					
	0-10	10-15	15-20	20-25	25-30	30+
<b>Period 1/1/2012 to 12/31/2012</b>						
Average monthly benefit	\$772	\$1,264	\$2,524	\$3,095	\$4,323	\$4,943
Average highest average salary	\$4,579	\$4,213	\$5,649	\$5,626	\$6,465	\$6,275
Number of service retirees	123	77	83	138	138	99
<b>Period 1/1/2011 to 12/31/2011</b>						
Average monthly benefit	\$596	\$1,011	\$1,985	\$2,908	\$4,093	\$5,337
Average highest average salary	\$4,408	\$3,469	\$4,616	\$5,333	\$6,070	\$6,712
Number of service retirees	61	33	32	42	78	60
<b>Period 1/1/2010 to 12/31/2010</b>						
Average monthly benefit	\$677	\$1,053	\$1,955	\$2,776	\$4,540	\$5,024
Average highest average salary	\$4,102	\$3,516	\$4,482	\$5,184	\$6,476	\$6,414
Number of service retirees	54	32	41	73	116	124
<b>Period 1/1/2009 to 12/31/2009</b>						
Average monthly benefit	\$535	\$1,496	\$1,991	\$2,869	\$3,712	\$4,755
Average highest average salary	\$3,070	\$4,420	\$4,380	\$5,249	\$5,634	\$5,970
Number of service retirees	52	37	35	49	83	90
<b>Period 1/1/2008 to 12/31/2008</b>						
Average monthly benefit	\$584	\$1,072	\$1,625	\$2,867	\$3,453	\$5,245
Average highest average salary	\$3,897	\$3,832	\$4,043	\$5,522	\$5,503	\$7,011
Number of service retirees	51	25	27	45	59	135
<b>Period 1/1/2007 to 12/31/2007</b>						
Average monthly benefit	\$484	\$1,205	\$2,061	\$2,388	\$3,437	\$4,627
Average highest average salary	\$3,104	\$4,358	\$5,220	\$4,593	\$5,463	\$6,010
Number of service retirees	42	26	21	58	55	118
<b>Period 1/1/2006 to 12/31/2006</b>						
Average monthly benefit	\$312	\$1,135	\$1,451	\$2,042	\$3,053	\$4,470
Average highest average salary	\$2,203	\$3,913	\$3,505	\$3,930	\$4,708	\$5,727
Number of service retirees	17	16	14	41	61	118

<sup>1</sup> Information not available for years prior to 2006.

## Schedule of Average Benefit Payments

(In Actual Dollars)

Judicial Division<sup>1</sup>

YEAR RETIRED	YEARS OF SERVICE CREDIT					
	0-10	10-15	15-20	20-25	25-30	30+
<b>Period 1/1/2012 to 12/31/2012</b>						
Average monthly benefit	\$713	\$3,376	\$4,438	\$7,013	\$6,927	\$2,582
Average highest average salary	\$4,363	\$10,256	\$8,787	\$12,913	\$10,988	\$3,077
Number of service retirees	4	1	2	2	8	1
<b>Period 1/1/2011 to 12/31/2011</b>						
Average monthly benefit	\$962	\$2,332	\$3,156	\$5,642	\$4,768	\$7,974
Average highest average salary	\$8,192	\$10,487	\$8,704	\$10,430	\$7,818	\$9,925
Number of service retirees	1	2	3	5	3	5
<b>Period 1/1/2010 to 12/31/2010</b>						
Average monthly benefit	\$—	\$2,246	\$—	\$5,734	\$7,313	\$8,959
Average highest average salary	\$—	\$7,685	\$—	\$10,717	\$10,602	\$10,999
Number of service retirees	—	1	—	1	4	4
<b>Period 1/1/2009 to 12/31/2009</b>						
Average monthly benefit	\$1,006	\$2,549	\$4,238	\$5,555	\$7,012	\$8,330
Average highest average salary	\$3,171	\$7,858	\$10,304	\$10,302	\$10,449	\$10,297
Number of service retirees	1	2	1	5	3	6
<b>Period 1/1/2008 to 12/31/2008</b>						
Average monthly benefit	\$—	\$—	\$—	\$5,148	\$8,780	\$7,031
Average highest average salary	\$—	\$—	\$—	\$9,636	\$11,871	\$9,982
Number of service retirees	—	—	—	3	1	3
<b>Period 1/1/2007 to 12/31/2007</b>						
Average monthly benefit	\$714	\$1,853	\$—	\$3,764	\$6,020	\$6,631
Average highest average salary	\$3,898	\$9,312	\$—	\$7,676	\$9,227	\$8,678
Number of service retirees	3	1	—	4	6	8
<b>Period 1/1/2006 to 12/31/2006</b>						
Average monthly benefit	\$—	\$—	\$—	\$4,648	\$5,977	\$5,679
Average highest average salary	\$—	\$—	\$—	\$9,104	\$9,667	\$7,425
Number of service retirees	—	—	—	5	3	4

<sup>1</sup> Information not available for years prior to 2006.Denver Public Schools Division<sup>1</sup>

YEAR RETIRED	YEARS OF SERVICE CREDIT					
	0-10	10-15	15-20	20-25	25-30	30+
<b>Period 1/1/2012 to 12/31/2012</b>						
Average monthly benefit	\$742	\$1,507	\$2,099	\$3,032	\$3,589	\$4,568
Average highest average salary	\$4,164	\$4,919	\$5,238	\$5,454	\$5,478	\$5,682
Number of service retirees	46	31	42	70	38	33
<b>Period 1/1/2011 to 12/31/2011</b>						
Average monthly benefit	\$1,060	\$1,479	\$2,060	\$3,373	\$4,188	\$4,290
Average highest average salary	\$4,360	\$4,956	\$4,948	\$5,910	\$6,046	\$5,198
Number of service retirees	38	35	38	57	38	26
<b>Period 1/1/2010 to 12/31/2010</b>						
Average monthly benefit	\$943	\$1,386	\$1,943	\$2,870	\$3,971	\$4,710
Average highest average salary	\$4,372	\$4,335	\$5,151	\$5,312	\$5,893	\$5,944
Number of service retirees	22	20	25	42	33	30

<sup>1</sup> The DPS Division Trust Fund was established on January 1, 2010, and received the net assets of DPSRS.

## Schedule of Average Benefit Payments—All Division Trust Funds<sup>1</sup>

(In Actual Dollars)

YEAR RETIRED	YEARS OF SERVICE CREDIT					
	0-10	10-15	15-20	20-25	25-30	30+
<b>Period 1/1/2012 to 12/31/2012</b>						
Average monthly benefit	\$519	\$1,038	\$1,913	\$2,677	\$3,910	\$4,779
Average highest average salary	\$3,008	\$3,480	\$4,227	\$4,870	\$5,721	\$5,999
Number of service retirees	876	654	713	1,028	1,169	985
<b>Period 1/1/2011 to 12/31/2011</b>						
Average monthly benefit	\$515	\$989	\$1,770	\$2,657	\$3,817	\$4,919
Average highest average salary	\$2,727	\$2,941	\$3,605	\$4,371	\$5,351	\$6,012
Number of service retirees	744	473	550	847	1,101	893
<b>Period 1/1/2010 to 12/31/2010<sup>2</sup></b>						
Average monthly benefit	\$507	\$922	\$1,795	\$2,572	\$3,836	\$4,846
Average highest average salary	\$2,752	\$2,767	\$3,754	\$4,401	\$5,454	\$5,881
Number of service retirees	634	432	535	1,006	1,338	1,121
<b>Period 1/1/2009 to 12/31/2009</b>						
Average monthly benefit	\$444	\$1,024	\$1,802	\$2,585	\$3,703	\$4,779
Average highest average salary	\$2,513	\$3,263	\$3,911	\$4,643	\$5,377	\$5,995
Number of service retirees	510	359	411	754	1,110	952
<b>Period 1/1/2008 to 12/31/2008</b>						
Average monthly benefit	\$431	\$854	\$1,471	\$2,313	\$3,194	\$4,527
Average highest average salary	\$2,687	\$3,009	\$3,553	\$4,411	\$4,915	\$5,859
Number of service retirees	428	344	289	847	907	1,515
<b>Period 1/1/2007 to 12/31/2007</b>						
Average monthly benefit	\$404	\$860	\$1,369	\$2,199	\$3,123	\$4,335
Average highest average salary	\$2,540	\$3,075	\$3,356	\$4,188	\$4,816	\$5,585
Number of service retirees	432	302	277	833	949	1,670
<b>Period 1/1/2006 to 12/31/2006</b>						
Average monthly benefit	\$386	\$697	\$1,299	\$2,027	\$3,049	\$4,245
Average highest average salary	\$2,400	\$2,422	\$3,204	\$3,238	\$4,754	\$5,523
Number of service retirees	371	265	251	822	922	1,804
<b>Period 1/1/2005 to 12/31/2005</b>						
Average monthly benefit	\$376	\$661	\$1,101	\$1,954	\$2,684	\$4,063
Average highest average salary	\$2,456	\$2,467	\$2,945	\$3,893	\$4,337	\$5,318
Number of service retirees	296	173	244	720	859	2,331
<b>Period 1/1/2004 to 12/31/2004</b>						
Average monthly benefit	\$421	\$629	\$919	\$1,729	\$2,443	\$3,944
Average highest average salary	\$2,178	\$2,543	\$2,679	\$3,572	\$4,110	\$5,168
Number of service retirees	265	140	188	649	823	2,987
<b>Period 1/1/2003 to 12/31/2003</b>						
Average monthly benefit	\$337	\$538	\$901	\$1,725	\$2,357	\$3,851
Average highest average salary	\$1,956	\$2,100	\$2,609	\$3,576	\$3,992	\$5,072
Number of service retirees	231	164	200	627	755	2,725

<sup>1</sup> Data prior to December 31, 2010, does not include the DPS Division.

<sup>2</sup> The DPS Division Trust Fund was established on January 1, 2010, and received the net assets of DPSRS.



## Schedule of Contribution Rate History

### State Division (Members Other Than State Troopers)<sup>1</sup>

			PERCENT OF COVERED PAYROLL			
YEARS			MEMBER CONTRIBUTION RATE	EMPLOYER CONTRIBUTION RATE <sup>2</sup>	AMORTIZATION EQUALIZATION DISBURSEMENT	SUPPLEMENTAL AMORTIZATION EQUALIZATION DISBURSEMENT
8/1/1931	to	6/30/1938	3.50%	—	—	—
7/1/1938	to	6/30/1949	3.50%	3.50%	—	—
7/1/1949	to	6/30/1958	5.00%	5.00%	—	—
7/1/1958	to	6/30/1969	6.00%	6.00%	—	—
7/1/1969	to	6/30/1970	7.00%	7.00%	—	—
7/1/1970	to	6/30/1971	7.00%	8.00%	—	—
7/1/1971	to	6/30/1973	7.00%	8.50%	—	—
7/1/1973	to	6/30/1974	7.75%	9.50%	—	—
7/1/1974	to	6/30/1975	7.75%	10.50%	—	—
7/1/1975	to	8/31/1980	7.75%	10.64%	—	—
9/1/1980	to	12/31/1981	7.75%	12.20%	—	—
1/1/1982	to	6/30/1987	8.00%	12.20%	—	—
7/1/1987	to	6/30/1988	8.00%	10.20%	—	—
7/1/1988	to	6/30/1991	8.00%	12.20%	—	—
7/1/1991	to	4/30/1992	8.00%	11.60%	—	—
5/1/1992	to	6/30/1992	8.00%	5.60% <sup>3</sup>	—	—
7/1/1992	to	6/30/1993	8.00%	10.60%	—	—
7/1/1993	to	6/30/1997	8.00%	11.60%	—	—
1/1/2006	to	12/31/2006	8.00%	10.15%	0.50%	—
1/1/2007	to	12/31/2007	8.00%	10.15%	1.00%	—
1/1/2008	to	12/31/2008	8.00%	10.15%	1.40%	0.50%
1/1/2009	to	12/31/2009	8.00%	10.15%	1.80%	1.00%
1/1/2010	to	6/30/2010	8.00%	10.15%	2.20%	1.50%
7/1/2010	to	12/31/2010	10.50%	7.65%	2.20%	1.50%
1/1/2011	to	12/31/2011	10.50%	7.65%	2.60%	2.00%
1/1/2012	to	6/31/2012	10.50%	7.65%	3.00%	2.50%
7/1/2012	to	12/31/2012	8.00%	10.15%	3.00%	2.50%

<sup>1</sup> State and School Divisions merged July 1, 1997, and separated on January 1, 2006.

<sup>2</sup> All employer contribution rates shown since July 1, 1985, include the Health Care Trust Fund (HCTF) allocation.

<sup>3</sup> Legislation created an annual reduction equal to 1.0 percent of salary retroactive to July 1, 1991, to be taken during May and June of 1992.

## Schedule of Contribution Rate History

### State Troopers<sup>1</sup>

			PERCENT OF COVERED PAYROLL			
YEARS			MEMBER CONTRIBUTION RATE	EMPLOYER CONTRIBUTION RATE <sup>2</sup>	AMORTIZATION EQUALIZATION DISBURSEMENT	SUPPLEMENTAL AMORTIZATION EQUALIZATION DISBURSEMENT
7/1/1945	to	6/30/1969	7.00%	7.00%	—	—
7/1/1969	to	6/30/1970	8.00%	8.00%	—	—
7/1/1970	to	6/30/1971	8.00%	9.00%	—	—
7/1/1971	to	6/30/1973	8.00%	9.50%	—	—
7/1/1973	to	6/30/1974	8.75%	10.50%	—	—
7/1/1974	to	6/30/1975	8.75%	11.50%	—	—
7/1/1975	to	8/31/1980	8.75%	11.64%	—	—
9/1/1980	to	12/31/1981	8.75%	13.20%	—	—
1/1/1982	to	6/30/1987	9.00%	13.20%	—	—
7/1/1987	to	6/30/1988	9.00%	11.20%	—	—
7/1/1988	to	6/30/1989	9.00%	13.20%	—	—
7/1/1989	to	4/30/1992	12.30%	13.20%	—	—
5/1/1992	to	6/30/1992	12.30%	7.20% <sup>3</sup>	—	—
7/1/1992	to	6/30/1993	11.50%	12.20%	—	—
7/1/1993	to	6/30/1997	11.50%	13.20%	—	—
7/1/1997	to	6/30/1999	11.50%	13.10%	—	—
7/1/1999	to	6/30/2001	10.00%	13.10%	—	—
7/1/2001	to	6/30/2002	10.00%	12.60%	—	—
7/1/2002	to	6/30/2003	10.00%	12.74%	—	—
7/1/2003	to	12/31/2005	10.00%	12.85%	—	—
1/1/2006	to	12/31/2006	10.00%	12.85%	0.50%	—
1/1/2007	to	12/31/2007	10.00%	12.85%	1.00%	—
1/1/2008	to	12/31/2008	10.00%	12.85%	1.40%	0.50%
1/1/2009	to	12/31/2009	10.00%	12.85%	1.80%	1.00%
1/1/2010	to	6/30/2010	10.00%	12.85%	2.20%	1.50%
7/1/2010	to	12/31/2010	12.50%	10.35%	2.20%	1.50%
1/1/2011	to	12/31/2011	12.50%	10.35%	2.60%	2.00%
1/1/2012	to	6/31/2012	12.50%	10.35%	3.00%	2.50%
7/1/2012	to	12/31/2012	10.00%	12.85%	3.00%	2.50%

<sup>1</sup> State and School Divisions merged July 1, 1997, and separated on January 1, 2006.

<sup>2</sup> All employer contribution rates shown since July 1, 1985, include the HCTF allocation.

<sup>3</sup> Legislation created an annual reduction equal to 1.0 percent of salary retroactive to July 1, 1991, to be taken during May and June of 1992.

## Schedule of Contribution Rate History

School Division<sup>1</sup>

YEARS		PERCENT OF COVERED PAYROLL			
		MEMBER CONTRIBUTION RATE	EMPLOYER CONTRIBUTION RATE <sup>2</sup>	AMORTIZATION EQUALIZATION DISBURSEMENT	SUPPLEMENTAL AMORTIZATION EQUALIZATION DISBURSEMENT
1/1/1944	to 12/31/1949	3.50%	3.50%	—	—
1/1/1950	to 6/30/1958	5.00%	5.00%	—	—
7/1/1958	to 6/30/1969	6.00%	6.00%	—	—
7/1/1969	to 12/31/1969	7.00%	6.00%	—	—
1/1/1970	to 12/31/1970	7.00%	7.50%	—	—
1/1/1971	to 12/31/1971	7.00%	8.50%	—	—
1/1/1972	to 6/30/1973	7.00%	9.25%	—	—
7/1/1973	to 12/31/1973	7.75%	9.25%	—	—
1/1/1974	to 12/31/1974	7.75%	10.25%	—	—
1/1/1975	to 12/31/1975	7.75%	11.25%	—	—
1/1/1976	to 12/31/1980	7.75%	12.10%	—	—
1/1/1981	to 12/31/1981	7.75%	12.50%	—	—
1/1/1982	to 6/30/1987	8.00%	12.50%	—	—
7/1/1987	to 6/30/1988	8.00%	11.50%	—	—
7/1/1988	to 6/30/1991	8.00%	12.50%	—	—
7/1/1991	to 6/30/1992	8.00%	12.20%	—	—
7/1/1992	to 6/30/1997	8.00%	11.60%	—	—
1/1/2006	to 12/31/2006	8.00%	10.15%	0.50%	—
1/1/2007	to 12/31/2007	8.00%	10.15%	1.00%	—
1/1/2008	to 12/31/2008	8.00%	10.15%	1.40%	0.50%
1/1/2009	to 12/31/2009	8.00%	10.15%	1.80%	1.00%
1/1/2010	to 12/31/2010	8.00%	10.15%	2.20%	1.50%
1/1/2011	to 12/31/2011	8.00%	10.15%	2.60%	2.00%
1/1/2012	to 12/31/2012	8.00%	10.15%	3.00%	2.50%

<sup>1</sup> State and School Divisions merged July 1, 1997, and separated on January 1, 2006.

<sup>2</sup> All employer contribution rates shown since July 1, 1985, include the HCTF allocation.

State and School Division<sup>1</sup>

YEARS		PERCENT OF COVERED PAYROLL	
		MEMBER CONTRIBUTION RATE	EMPLOYER CONTRIBUTION RATE <sup>2</sup>
7/1/1997	to 6/30/1998	8.00%	11.50%
7/1/1998	to 6/30/2000	8.00%	11.40%
7/1/2000	to 6/30/2001	8.00%	10.40%
7/1/2001	to 6/30/2002	8.00%	9.90%
7/1/2002	to 6/30/2003	8.00%	10.04%
7/1/2003	to 12/31/2005	8.00%	10.15%

<sup>1</sup> State and School Divisions merged July 1, 1997, and separated on January 1, 2006.

<sup>2</sup> The employer contribution rates shown include the HCTF allocation.

## Schedule of Contribution Rate History

Local Government Division<sup>1</sup>

YEARS		PERCENT OF COVERED PAYROLL			
		MEMBER CONTRIBUTION RATE	EMPLOYER CONTRIBUTION RATE <sup>2</sup>	AMORTIZATION EQUALIZATION DISBURSEMENT	SUPPLEMENTAL AMORTIZATION EQUALIZATION DISBURSEMENT
1/1/1944	to 12/31/1949	3.50%	3.50%	—	—
1/1/1950	to 6/30/1958	5.00%	5.00%	—	—
7/1/1958	to 6/30/1969	6.00%	6.00%	—	—
7/1/1969	to 12/31/1969	7.00%	6.00%	—	—
1/1/1970	to 12/31/1970	7.00%	7.00%	—	—
1/1/1971	to 6/30/1973	7.00%	7.50%	—	—
7/1/1973	to 12/31/1973	7.75%	7.50%	—	—
1/1/1974	to 12/31/1974	7.75%	8.50%	—	—
1/1/1975	to 12/31/1975	7.75%	9.50%	—	—
1/1/1976	to 12/31/1980	7.75%	9.86%	—	—
1/1/1981	to 12/31/1981	7.75%	10.20%	—	—
1/1/1982	to 6/30/1991	8.00%	10.20%	—	—
7/1/1991	to 12/31/2000	8.00%	10.00%	—	—
1/1/2001	to 12/31/2001	8.00%	9.43%	—	—
1/1/2002	to 12/31/2002	8.00%	9.19%	—	—
1/1/2003	to 12/31/2003	8.00%	9.60%	—	—
1/1/2004	to 12/31/2005	8.00%	10.00%	—	—
1/1/2006	to 12/31/2006	8.00%	10.00%	0.50%	—
1/1/2007	to 12/31/2007	8.00%	10.00%	1.00%	—
1/1/2008	to 12/31/2008	8.00%	10.00%	1.40%	0.50%
1/1/2009	to 12/31/2009	8.00%	10.00%	1.80%	1.00%
1/1/2010	to 12/31/2012	8.00%	10.00%	2.20%	1.50%

<sup>1</sup> The Local Government Division Trust Fund was the Municipal Division Trust Fund prior to January 1, 2006.

<sup>2</sup> All employer contribution rates shown since July 1, 1985, include the HCTF allocation.

## Schedule of Contribution Rate History

### Judicial Division

			PERCENT OF COVERED PAYROLL			
YEARS			MEMBER CONTRIBUTION RATE	EMPLOYER CONTRIBUTION RATE <sup>1</sup>	AMORTIZATION EQUALIZATION DISBURSEMENT	SUPPLEMENTAL AMORTIZATION EQUALIZATION DISBURSEMENT
7/1/1949	to	6/30/1957	5.00%	5.00%	—	—
7/1/1957	to	6/30/1973	6.00%	12.00%	—	—
7/1/1973	to	6/30/1980	7.00%	12.00%	—	—
7/1/1980	to	8/30/1980	7.00%	13.00%	—	—
9/1/1980	to	12/31/1981	7.00%	15.00%	—	—
1/1/1982	to	6/30/1987	8.00%	15.00%	—	—
7/1/1987	to	6/30/1988	8.00%	13.00%	—	—
7/1/1988	to	6/30/2000	8.00%	15.00%	—	—
7/1/2000	to	6/30/2001	8.00%	14.00%	—	—
7/1/2001	to	6/30/2003	8.00%	11.82%	—	—
7/1/2003	to	6/30/2004	8.00%	12.66%	—	—
7/1/2004	to	12/31/2004	8.00%	13.66%	—	—
1/1/2005	to	12/31/2005	8.00%	13.66%	—	—
1/1/2006	to	12/31/2006	8.00%	13.66%	0.50%	—
1/1/2007	to	12/31/2007	8.00%	13.66%	1.00%	—
1/1/2008	to	12/31/2008	8.00%	13.66%	1.40%	0.50%
1/1/2009	to	12/31/2009	8.00%	13.66%	1.80%	1.00%
1/1/2010	to	6/30/2010	8.00%	13.66%	2.20%	1.50%
7/1/2010	to	12/31/2011	10.50%	11.16%	2.20%	1.50%
1/1/2012	to	6/31/2012	10.50%	11.16%	2.20%	1.50%
7/1/2012	to	12/31/2012	8.00%	13.66%	2.20%	1.50%

<sup>1</sup> All employer contribution rates shown since July 1, 1985, include the HCTF allocation.

### Denver Public Schools Division<sup>1</sup>

			PERCENT OF COVERED PAYROLL				
YEARS			MEMBER CONTRIBUTION RATE	EMPLOYER CONTRIBUTION RATE <sup>2</sup>	AMORTIZATION EQUALIZATION DISBURSEMENT	SUPPLEMENTAL AMORTIZATION EQUALIZATION DISBURSEMENT	EMPLOYER CONTRIBUTION PCOP OFFSET <sup>3</sup>
1/1/2010	to	12/31/2010	8.00%	13.75%	2.20%	1.50%	(15.04%)
1/1/2011	to	12/31/2011	8.00%	13.75%	2.60%	2.00%	(14.72%)
1/1/2012	to	12/31/2012	8.00%	13.75%	3.00%	2.50%	(15.37%)

<sup>1</sup> The DPS Division Trust Fund was established on January 1, 2010, and received the net assets of DPSRS.

<sup>2</sup> All employer contribution rates shown include the DPS HCTF allocation.

<sup>3</sup> An offset to the DPS Division rate is provided for in SB 09-282. See Note 4—Contributions.

## Schedule of Contribution Rate History

### Employer Contributions to Health Care Trust Funds

DIVISION/YEARS	PERCENT OF COVERED PAYROLL ALLOCATED FROM EMPLOYER CONTRIBUTION TO HEALTH CARE TRUST FUNDS
<i>State and School Division<sup>1</sup></i>	
7/1/1997 to 6/30/1999	0.80%
7/1/1999 to 12/31/2000	1.10%
1/1/2001 to 12/31/2001	1.42%
1/1/2002 to 12/31/2002	1.64%
1/1/2003 to 6/30/2004	1.10%
7/1/2004 to 12/31/2005	1.02%
<i>State Division<sup>1</sup></i>	
7/1/1985 to 6/30/1997	0.80%
1/1/2006 to 12/31/2012	1.02%
<i>School Division<sup>1</sup></i>	
7/1/1985 to 6/30/1997	0.80%
1/1/2006 to 12/31/2012	1.02%
<i>Local Government Division<sup>2</sup></i>	
7/1/1985 to 6/30/1999	0.80%
7/1/1999 to 12/31/2000	1.10%
1/1/2001 to 12/31/2001	1.96%
1/1/2002 to 12/31/2002	2.31%
1/1/2003 to 12/31/2003	1.69%
1/1/2004 to 6/30/2004	1.10%
7/1/2004 to 12/31/2012	1.02%
<i>Judicial Division</i>	
7/1/1985 to 6/30/1999	0.80%
7/1/1999 to 12/31/2000	1.10%
1/1/2001 to 12/31/2002	4.37%
1/1/2003 to 12/31/2003	3.11%
1/1/2004 to 6/30/2004	1.10%
7/1/2004 to 12/31/2012	1.02%
<i>Denver Public Schools Division<sup>3</sup></i>	
1/1/2010 to 12/31/2012	1.02%

<sup>1</sup> State and School Divisions merged July 1, 1997, and separated on January 1, 2006.

<sup>2</sup> The Local Government Division Trust Fund was the Municipal Division Trust Fund prior to January 1, 2006.

<sup>3</sup> The DPS HCTF was established on January 1, 2010, and received the balance of the Denver Public Schools Health Benefit Trust.

### Employer Contributions to MatchMaker<sup>1</sup>

DIVISION/YEARS	PERCENT OF COVERED PAYROLL AVAILABLE FROM EMPLOYER CONTRIBUTION FOR MATCHMAKER (MAXIMUM MATCH)
<i>State and School Division<sup>2</sup></i>	
1/1/2001 to 12/31/2002	3.00%
1/1/2003 to 12/31/2003	2.00%
1/1/2004 to 5/31/2004	1.00%
<i>Local Government Division<sup>3</sup></i>	
1/1/2001 to 12/31/2001	2.00%
1/1/2002 to 12/31/2002	3.00%
1/1/2003 to 12/31/2003	2.00%
1/1/2004 to 5/31/2004	1.00%
<i>Judicial Division</i>	
1/1/2001 to 12/31/2002	7.00%
1/1/2003 to 12/31/2003	6.00%
1/1/2004 to 5/31/2004	5.00%

<sup>1</sup> Legislation enacted in 2004 ended MatchMaker contributions by June 1, 2004.

<sup>2</sup> State and School Divisions merged July 1, 1997, and separated on January 1, 2006.

<sup>3</sup> The Local Government Division Trust Fund was the Municipal Division Trust Fund prior to January 1, 2006.

## Principal Participating Employers

State Division Trust Fund<sup>1</sup>

EMPLOYER	2012			2006		
	COVERED	RANK	PERCENTAGE OF	COVERED	RANK	PERCENTAGE OF
	ACTIVE MEMBERS			ACTIVE MEMBERS		
	DECEMBER 31			DECEMBER 31		
University of Colorado	6,063	1	11.06%	5,432	2	10.28%
Department of Corrections	5,890	2	10.75%	5,644	1	10.68%
District Courts	3,084	3	5.63%	2,936	5	5.55%
Department of Transportation	2,978	4	5.43%	3,102	3	5.87%
Colorado State University	2,922	5	5.33%	3,065	4	5.80%
Front Range Community College	1,521	6	2.78%	1,256	8	2.38%
Department of Natural Resources	1,518	7	2.77%	1,567	6	2.96%
Metropolitan State College	1,360	8	2.48%	1,222	9	2.31%
Department of Human Services	1,233	9	2.25%	1,367	7	2.59%
Department of Public Health and Environment	1,185	10	2.16%	—	—	—
Department of Revenue	—	—	—	1,171	10	2.22%

<sup>1</sup> Data for the number of members by employer for years prior to 2006 is not available.

School Division Trust Fund<sup>1</sup>

EMPLOYER	2012			2006		
	COVERED	RANK	PERCENTAGE OF	COVERED	RANK	PERCENTAGE OF
	ACTIVE MEMBERS			ACTIVE MEMBERS		
	DECEMBER 31			DECEMBER 31		
Jefferson County School District	12,024	1	10.43%	12,168	1	10.74%
Cherry Creek School District	7,303	2	6.33%	6,869	2	6.06%
Douglas County Schools	6,976	3	6.05%	6,663	3	5.88%
Adams 12 Five Star Schools	4,964	4	4.31%	4,684	4	4.13%
Aurora Public Schools	4,786	5	4.15%	4,348	7	3.84%
Boulder Valley School District	4,486	6	3.89%	4,573	5	4.04%
Colorado Springs Public Schools	4,277	7	3.71%	4,462	6	3.94%
Poudre School District RE-1	4,043	8	3.51%	3,774	8	3.33%
St. Vrain School District	3,827	9	3.32%	3,207	9	2.83%
Academy School District 20	3,028	10	2.63%	—	—	—
Mesa Valley School District	—	—	—	3,042	10	2.69%

<sup>1</sup> Data for the number of members by employer for years prior to 2006 is not available.

Local Government Division Trust Fund<sup>1</sup>

EMPLOYER	2012			2006		
	COVERED	RANK	PERCENTAGE OF	COVERED	RANK	PERCENTAGE OF
	ACTIVE MEMBERS			ACTIVE MEMBERS		
	DECEMBER 31			DECEMBER 31		
Boulder County Government	2,082	1	17.21%	1,847	4	11.57%
Colorado Springs Public Utilities	1,819	2	15.04%	1,917	3	12.01%
City of Boulder	1,394	3	11.52%	1,607	5	10.07%
City of Colorado Springs	1,273	4	10.52%	1,958	2	12.27%
City of Pueblo	481	5	3.98%	562	6	3.52%
Tri-County Health Department	357	6	2.95%	335	7	2.10%
Douglas County Libraries	314	7	2.60%	333	8	2.09%
Arapahoe Parks and Recreational District	203	8	1.68%	211	10	1.32%
Colorado Housing and Finance Authority	183	9	1.51%	—	—	—
City of Fort Morgan	142	10	1.17%	—	—	—
Town of Mountain Village	—	—	—	218	9	1.37%
Memorial Health System	—	—	—	3,779	1	23.68%

<sup>1</sup> Data for the number of members by employer for years prior to 2006 is not available.

## Principal Participating Employers

### Judicial Division Trust Fund<sup>1</sup>

EMPLOYER	2012			2006		
	COVERED ACTIVE MEMBERS DECEMBER 31	RANK	PERCENTAGE OF TOTAL SYSTEM	COVERED ACTIVE MEMBERS DECEMBER 31	RANK	PERCENTAGE OF TOTAL SYSTEM
Judicial Department <sup>2</sup>	312	1	94.83%	266	1	91.41%

<sup>1</sup> Data for the number of members by employer for years prior to 2006 is not available.

<sup>2</sup> With the exception of the Denver County Court, all of the Judicial members for all other courts are reported to PERA on a single contribution report by the State's central payroll office. Member counts for each separate court are not available.

### Denver Public Schools Division Trust Fund<sup>1</sup>

EMPLOYER	2012			2010		
	COVERED ACTIVE MEMBERS DECEMBER 31	RANK	PERCENTAGE OF TOTAL SYSTEM	COVERED ACTIVE MEMBERS DECEMBER 31	RANK	PERCENTAGE OF TOTAL SYSTEM
Denver Public Schools	12,385	—	89.03%	12,248	—	92.99%

<sup>1</sup> The DPS Division Trust Fund was established on January 1, 2010, and received the net assets of DPSRS.

### Health Care Trust Fund<sup>1</sup>

EMPLOYER	2012			2006		
	COVERED ACTIVE MEMBERS DECEMBER 31	RANK	PERCENTAGE OF TOTAL SYSTEM	COVERED ACTIVE MEMBERS DECEMBER 31	RANK	PERCENTAGE OF TOTAL SYSTEM
Jefferson County School District	12,024	1	6.59%	12,168	1	6.58%
Cherry Creek School District	7,303	2	4.00%	6,869	2	3.72%
Douglas County Schools	6,976	3	3.82%	6,663	3	3.60%
University of Colorado	6,063	4	3.32%	5,432	5	2.94%
Department of Corrections	5,890	5	3.23%	5,644	4	3.05%
Adams 12 Five Star Schools	4,964	6	2.72%	4,684	6	2.53%
Aurora Public Schools	4,786	7	2.62%	4,348	9	2.35%
Boulder Valley School District	4,486	8	2.46%	4,573	7	2.47%
Colorado Springs Public Schools	4,277	9	2.34%	4,462	8	2.41%
Poudre School District RE-1	4,043	10	2.22%	—	—	—
Memorial Health System	—	—	—	3,779	10	2.04%

<sup>1</sup> Data for the number of members by employer for years prior to 2006 is not available.

### Denver Public Schools Health Care Trust Fund<sup>1</sup>

EMPLOYER	2012			2010		
	COVERED ACTIVE MEMBERS DECEMBER 31	RANK	PERCENTAGE OF TOTAL SYSTEM	COVERED ACTIVE MEMBERS DECEMBER 31	RANK	PERCENTAGE OF TOTAL SYSTEM
Denver Public Schools	12,385	—	89.03%	12,248	—	92.99%

<sup>1</sup> The DPS HCTF was established on January 1, 2010, and received the balance of the Denver Public Schools Retiree Health Benefit Trust.



## Schedule of Affiliated Employers

### State Division

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#### Agencies and Instrumentalities

CollegeInvest  
 College Assist  
 Colorado Association of School Boards  
 Colorado Association of School Executives  
 Colorado Council on the Arts  
 Colorado High School Activities Association  
 Colorado Public Employees' Retirement Association  
 Colorado Water Resources & Power Development Authority  
 Colorado Community College System  
 CoverColorado  
 Department of Agriculture  
 Department of Corrections  
 Department of Education  
 Department of Health Care Policy and Financing  
 Department of Human Services  
 Department of Labor and Employment  
 Department of Law  
 Department of Local Affairs  
 Department of Military and Veterans Affairs  
 Department of Natural Resources  
 Department of Personnel and Administration  
 Department of Public Health and Environment  
 Department of Public Safety  
 Department of Regulatory Agencies  
 Department of Revenue  
 Department of State  
 Department of the Treasury  
 Department of Transportation  
 Fire and Police Pension Association  
 General Assembly  
 Joint Budget Committee  
 Judicial Department  
 Legislative Council  
 Office of the District Attorneys  
 Office of the Governor  
 Office of Legislative Legal Services

Office of the Lieutenant Governor  
 Office of the State Auditor  
 Pinnacle Assurance  
 School for the Deaf and the Blind  
 Special District Association of Colorado  
 State Historical Society

#### Institutions of Higher Education

Adams State College  
 Aims Community College  
 Arapahoe Community College  
 Auraria Higher Education Center  
 Aurora Community College  
 Colorado Mesa University  
 Colorado Mountain College  
 Colorado Northwestern Community College  
 Colorado School of Mines  
 Colorado State University  
 Colorado State University at Pueblo  
 Commission on Higher Education  
 Denver Community College  
 Fort Lewis College  
 Front Range Community College  
 Lamar Community College  
 Metropolitan State University of Denver  
 Morgan Community College  
 Northeastern Junior College  
 Otero Junior College  
 Pikes Peak Community College  
 Pueblo Vocational Community College  
 Red Rocks Community College  
 State Board for Community Colleges and Occupational Education  
 Trinidad State Junior College  
 University of Colorado  
 University of Northern Colorado  
 Western State Colorado University

### School Division<sup>1</sup>

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#### Adams County

Adams 12 Five Star Schools  
 Adams County School District 14  
 Bennett School District 29J  
 Brighton School District 27J  
 Mapleton School District 1  
 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

<sup>1</sup> The list of employers in the School Division does not include charter schools operating within the respective public school districts and under the Colorado Charter School Institute.

## Schedule of Affiliated Employers

### School Division<sup>1</sup>

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#### **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 16  
Garfield School District Re-2  
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

<sup>1</sup>The list of employers in the School Division does not include charter schools operating within the respective public school districts and under the Colorado Charter School Institute.

## Schedule of Affiliated Employers

School Division<sup>1</sup>**Larimer County**

Estes Park School District  
 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 Rural 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

<sup>1</sup> The list of employers in the School Division does not include charter schools operating within the respective public school districts and under the Colorado Charter School Institute.

## Schedule of Affiliated Employers

### School Division<sup>1</sup>

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#### 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  
 Gilcrest School District Re-1  
 Greeley School District 6  
 Johnstown-Milliken 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  
 Weld School District Re-8  
 Windsor School District Re-4

#### Yuma County

Idalia School District RJ-3  
 Liberty School District J-4  
 Wray School District RD-2  
 Yuma School District 1

#### Boards of Cooperative Educational Services (BOCES)

Centennial BOCES  
 East Central BOCES  
 Expeditionary Learning School BOCES  
 Grand Valley BOCES  
 Mountain BOCES  
 Northeast BOCES  
 Northwest Colorado BOCES  
 Pikes Peak BOCES  
 Rio Blanco BOCES  
 San Juan BOCES  
 San Luis Valley BOCES  
 Santa Fe Trail BOCES  
 South Central BOCES  
 Southeastern BOCES  
 Ute Pass BOCES

#### Boards of Cooperative Services (BOCS)

Uncompahgre BOCS

#### Vocational Schools

Delta-Montrose Area Vocational School

#### Other

Colorado Consortium for Earth and Space Science Education

<sup>1</sup>The list of employers in the School Division does not include charter schools operating within the respective public school districts and under the Colorado Charter School Institute.

### Local Government Division

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Adams and Jefferson County Hazardous Response Authority  
 Alamosa Housing Authority  
 Arapahoe Park and Recreation District  
 Aurora Housing Authority  
 Baca Grande Water & Sanitation District  
 Beulah Water Works District  
 Black Hawk-Central City Sanitation District  
 Blanca-Fort Garland Metropolitan District  
 Boulder County  
 Boulder County Public Trustee's Office  
 Boxelder Sanitation District  
 Brush Housing Authority  
 Carbon Valley Park & Recreation District  
 Castle Pines Metropolitan District  
 Castle Pines North Metropolitan District  
 Center Housing Authority  
 Central Colorado Water Conservancy District  
 City of Alamosa  
 City of Boulder  
 City of Castle Pines  
 City of Colorado Springs  
 City of Fort Morgan  
 City of Las Animas  
 City of Lone Tree  
 City of Manitou Springs  
 City of Pueblo  
 City of Wray

City of Yuma  
 Collbran Conservancy District  
 Colorado District Attorneys' Council  
 Colorado First Conservation District  
 Colorado Health Facilities Authority  
 Colorado Housing and Finance Authority  
 Colorado Library Consortium  
 Colorado School District Self Insurance Pool  
 Colorado Springs Utilities  
 Columbine Knolls-Grove Metropolitan Recreation District  
 Costilla Housing Authority  
 County Technical Services, Inc.  
 Cucharas Sanitation & Water District  
 Cunningham Fire Protection District  
 Douglas County Libraries  
 Douglas County Housing Partnership  
 Durango Fire and Rescue Authority  
 East Cheyenne Groundwater Management District  
 East Larimer County Water District  
 Eastern Rio Blanco Metropolitan Recreation & Park District  
 Eaton Housing Authority  
 Elbert County Library District  
 Elizabeth Park and Recreation District  
 El Paso-Teller County Emergency Telephone Service Authority  
 Estes Park Local Marketing District  
 Estes Valley Fire Protection District  
 Estes Valley Public Library District

## Schedule of Affiliated Employers

### Local Government Division

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Forest Lakes Metropolitan District	Rio Blanco Water Conservancy District
Fremont Conservation District	Routt County Conservation District
Fremont Sanitation District	Sable-Altura Fire Protection District
Garfield County Housing Authority	San Luis Valley Development Resources Group
Grand Junction Regional Airport Authority	San Luis Valley Water Conservancy District
Grand Valley Fire Protection District	San Miguel County Public Library
Green Mountain Water and Sanitation District	San Miguel Regional and Telluride Housing Authority
GVR Metropolitan District	Scientific and Cultural Facilities District
Housing Authority of Arriba	Sheridan Sanitation District #1
Housing Authority of the City of Boulder	Soldier Canyon Filter Plant
Housing Authority of the City of Colorado Springs	Steamboat II Water and Sanitation District
Housing Authority of the County of Adams	St. Vrain Sanitation District
Housing Authority of the Town of Limon	Tabernash Meadows Water and Sanitation District
Lamar Housing Authority	Town of Alma
Lamar Utilities Board	Town of Bayfield
Left Hand Water District	Town of Crawford
Longmont Housing Authority	Town of Dinosaur
Longs Peak Water District	Town of Eckley
Louisville Fire Protection District	Town of Estes Park
Meeker Cemetery District	Town of Firestone
Meeker Regional Library District	Town of Lake City
Meeker Sanitation District	Town of Lochbuie
Montrose Fire Protection District	Town of Mountain Village
Montrose Recreation District	Town of Platteville
Monument Sanitation District	Town of Rico
Morgan Conservation District	Town of Rye
Morgan County Quality Water District	Town of Seibert
Mountain View Fire Protection District	Town of Silver Plume
Mountain Water and Sanitation District	Town of Timnath
Niwot Sanitation District	Tri-County Health Department
North Carter Lake Water District	Tri-Lakes Wastewater Treatment Facility
North Chaffee County Regional Library	Upper Colorado Environmental Plant Center
Northeast Colorado Health Department	Washington-Yuma Counties Combined Communications Center
Northeastern Colorado Association of Local Governments	Weld County Department of Public Health and Environment
Park Center Water District	West Greeley Conservation District
Pikes Peak Regional Building Department	Western Rio Blanco Metropolitan Recreation and Park District
Pine Drive Water District	White River Conservation District
Plains Ground Water Management District	Windsor-Severance Library District
Pueblo City-County Health Department	Wray Housing Authority
Pueblo Library District	Yuma Housing Authority
Pueblo Transit Authority	
Pueblo Urban Renewal Authority	
Rampart Regional Library District	
Rangely Regional Library District	
Red Feather Mountain Library District	
Red, White & Blue Fire Protection District	
Republican River Water Conservation District	
Rifle Fire Protection District	
Rio Blanco Fire Protection District	

## Schedule of Affiliated Employers

### Judicial Division

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1st-22nd District Court	Logan County Court
Adams County Court	Mesa County Court
Alamosa County Court	Mineral County Court
Arapahoe County Court	Moffat County Court
Archuleta County Court	Montezuma County Court
Baca County Court	Montrose County Court
Bent County Court	Morgan County Court
Boulder County Court	Otero County Court
Broomfield County Court	Ouray County Court
Chaffee County Court	Park County Court
Cheyenne County Court	Phillips County Court
Clear Creek County Court	Pitkin County Court
Conejos County Court	Prowers County Court
Costilla County Court	Pueblo County Court
Court of Appeals	Rio Blanco County Court
Crowley County Court	Rio Grande County Court
Custer County Court	Routt County Court
Delta County Court	Saguache County Court
Denver County Court	San Juan County Court
Denver Juvenile Court	San Miguel County Court
Denver Probate Court	Sedgwick County Court
Dolores County Court	Summit County Court
Douglas County Court	Supreme Court
Eagle County Court	Teller County Court
Elbert County Court	Washington County Court
El Paso County Court	Weld County Court
Fremont County Court	Yuma 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	
Lake County Court	
La Plata County Court	
Larimer County Court	
Las Animas County Court	
Lincoln County Court	

### Denver Public Schools Division<sup>1</sup>

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Denver Public School District No. 1

<sup>1</sup>The list of employers in the Denver Public Schools Division does not include charter schools operating within the Denver Public Schools school district.





## Colorado Public Employees' Retirement Association

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