## 2008

COMPREHENSIVE ANNUAL FINANCIAL REPORT


Year Ended December 31, 2008
Denver Public Schools Retivement System
Denver, Colorado

# 2008 

COMPREHENSIVE ANNUAL FINANCIAL REPORT

PREPARED BY THE DPSRS STAFF
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Denver, Colorado 80209-3172

## Norman L. Ruggles, Executive Director



Year Ended December 31, 2008
Denver Public Schools Retivement System
Denver, Colorado

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## INTRODUCTORY

# Certificate of <br> Achievement for Excellence in Financial Reporting 

Presented to

## Denver Public Schools Retirement System, Colorado

For its Comprehensive Annual

Financial Report
for the Fiscal Year Ended
December 31, 2007
A Certificate of Achievement for Excellence in Financial Reporting is presented by the Goverument Finance Officers Association of the United States and Canada to government units and public employee retirement systems whose comprehensive annual financial reports (CAFRs) achieve the highest standards in government accounting and financial reporting.


## Public Pension Coordinating Council

## Public Pension Standards Award For Funding and Administration 2008

## Denver Public Schools Retirement System

In recognition of meeting professional standards for
plan funding and 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)

June 26, 2009
TO THE MEMBERS OF THE BOARD OF TRUSTEES AND THE BOARD OF EDUCATION:
I am pleased to present the Comprehensive Annual Financial Report (CAFR) of the Denver Public Schools Retirement System (System or DPSRS) for the year ended December 31, 2008.
The System is the successor of the Denver Public School Employees' Pension and Benefit Association, which was created by the Board of Education of School District No. 1 in the City and County of Denver, Colorado, on December 1, 1945, pursuant to state statute, that permitted first class school districts to establish an employees' retirement fund. Effective January 1, 2000, the state statute was rewritten, and the Association was renamed the Denver Public Schools Retirement System. The Retirement Board was replaced by an 11 -member Board of Trustees having all fiduciary responsibilities for management of the System. The Board of Education retains responsibilities for funding and plan design.
School District No. 1 (DPS or School District), the System, and Charter Schools within the School District comprise the District. Membership in the System is required for full-time employees of the District.

## BENEFIT PLAN CHANGES AND OTHER INITIATIVES

The following changes to the Plan or administration of the System were made effective in 2008:

- Clarification was made as to when a deferred, vested member is first eligible to commence receiving retirement payments.
- Language was added to the Plan detailing the employer's obligation to pay contributions on current employees' part-time, hourly service arrearages, even if that service was performed for a prior participating employer.
- The Plan was modified to charge all part-time, hourly service arrearages for employees appointed or reappointed on or after January 1, 2009 at the current employee contribution rate rather than the contribution rate that was in effect at the time the service was rendered.
- The Plan was changed so that members who resign or are terminated from employment with five or more years of service will automatically become deferred members.

On April 24, 2008 the School District contributed to DPSRS $\$ 397.8$ million in proceeds from Pension Certificates of Participation issued by the District for the purpose of fully funding the System. As a result, the employer contribution rate was reduced to $7.58 \%$ on July 1, 2008, for the fiscal year ending June 30, 2009.
Colorado House Bill 08-1403 was enacted which permitted, but did not require, a merger between DPSRS and the statewide Public Employees' Retirement Association (PERA). The legislation allowed the three parties who would be involved in a merger - DPSRS, DPS and PERA - to try to reach a mutually satisfactory agreement that would result in merging the two retirement systems. For a number of reasons, including the complexities of the transaction and the severe decline in the financial markets in the latter months of 2008, an agreement was not reached. However, another substantial attempt at merger by DPS was initiated through legislation in 2009.

## FINANCIAL INFORMATION

The financial statements and reporting are the responsibility of the System's management. The financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America, and the System's auditor has so stated in its opinion. This CAFR was prepared to conform with the requirements of Governmental Accounting Standards Board (GASB) Statements applicable to governmental accounting for fiduciary funds.
In the opinion of the System's management, the financial information presented is accurate in all material respects, and presents fairly, the financial status at December 31, 2008. The management of the System is responsible for maintaining an internal control structure to provide reasonable assurance of asset accountability and the authorized and proper recording of transactions.
Additional financial information can be found in Management's Discussion and Analysis, which is included as required supplementary information and precedes the financial statements in the Financial Section of this report.

An audit of the System's financial statements is conducted on an annual basis. Clifton Gunderson LLP performed the System's external audit. It is noted that there were no disagreements between management and the auditors on any accounting or auditing related issues.

## FUNDING

There are several ways to appraise the funding condition of the System and progress toward the objective of preserving financial solvency. The employment of a qualified, independent actuary is essential to perform an actuarial review and valuation and to provide technical advice and assistance.

The System's actuary performs an annual actuarial review. In addition, the Plan requires an investigation of mortality and service experience at least once during each five-year period. In recent years, the experience analysis has been performed every three years. An experience investigation was performed for the period January 1, 2004 through December 31, 2006 to keep our actuarial assumptions accurately matched to our membership demographics and cash flow projections.
An adequate funding level provides assurance and security for payment of future benefits. One measure of funding status is the Solvency Test shown on page 57 . This test compares actuarial valuation assets to actuarial accrued liabilities categorized by active member contributions, liabilities for future benefits for present retirees and beneficiaries, and liabilities for service already performed by active members.

Another measure of funding progress is shown in the funding progress schedule on page 31 . This historical schedule indicates the actuarial value of assets as a percentage of actuarial accrued liabilities. The current actuarial funded ratio of the System is $84.3 \%$. This is consistent with $87.7 \%$ in the previous year. As of December 31, 2008, the System remains in a funded position sufficient to pay promised future benefits.

## INVESTMENTS AND ECONOMIC OVERVIEW

Investment policies and objectives for the System have been designed to enable the investment program of the retirement system to facilitate the long-term accomplishment of the System's mission. The program emphasizes long-term total returns and performance, recognizing the impact of inflation on benefit levels. Risk exposure is controlled by broad diversification related to asset mix and careful selection and evaluation of specialized investment managers.
It is an unfortunate reality that the U.S. economy and financial markets suffered in 2008. Total return for the U.S. equity markets, as measured by the Russell 3000 Index, was $-37.3 \%$ for 2008. The international markets suffered even more, having a return of $-43.4 \%$ as measured by the EAFE Index. Bonds, as measured by the Barclays Capital Aggregate Index, returned 5.24\% in 2008.

## Mission STATEMENT

The System exists in partnership with the District and its employees to provide career employees and their families with a primary source of lifetime income relative to service at retivement, disability or death, in a prudent, responsible and cost-effective manner.

The System's diversified portfolio produced a total return of $-24.3 \%$ for 2008. Previously the System achieved five consecutive years of double digit returns. Although the System incurred a substantial loss in 2008, when compared to other public retirement funds in the U.S., our investment performance ranked in approximately the top third of the Callan Associates public fund database. Detailed investment performance results, policies, and strategies are presented by the Chief Investment Officer in the Investment Management section of this report.

## AWARDS

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the System for its CAFR for the fiscal year ended December 31, 2007. This was the sixteenth consecutive year that the System has received this prestigious award. In order to be awarded a Certificate of Achievement, a public employee retirement system must publish an easily readable and efficiently organized CAFR. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe that our current CAFR continues to meet the Certificate of Achievement Program's requirements, and we are submitting the report to the GFOA to determine its eligibility for another certificate.

In addition, the System received the Public Pension Standards Award in 2008 for the third consecutive year. This award was given to the System by the Public Pension Coordinating Council in recognition of our meeting professional standards for both plan design and administration.

## ACKNOWLEDGMENTS

The compilation of this report reflects the combined efforts of the staff of the accounting, investment, benefits and executive sections of the DPSRS Office. It is intended to provide comprehensive and reliable information as a basis for making management decisions, determining compliance with legal provisions and determining responsible stewardship for the assets contributed by the System's members and the District.

I would like to express my appreciation to the Board of Trustees, staff, consultants, Board of Education and all others who work to assure the successful administration, operation and financial soundness of the retirement plan. If you have questions about this report or need additional information, please contact the DPSRS office.


Respectfully submitted, Norman L. Ruggles
Executive Director

## O Message From the Chairperson

In keeping with past practices and generally accepted reporting standards, as Chairperson of the Board of Trustees for the DPSRS, I am pleased to present the Comprehensive Annual Financial Report for our 63rd year of operation, which ended on December 31, 2008. The report provides the reader with a review of the financial, actuarial, and investment status of the DPSRS.

The 2008 Actuarial Report indicates that the DPSRS is financially sound, as a result of a large cash contribution of approximately $\$ 400$ million by the Plan Sponsor, as well as the long-term investment practices of DPSRS. The year was a difficult one for investors everywhere. While the Plan's 2008 investment return of negative $24.3 \%$ was disappointing, we outperformed $63 \%$ of our public fund peers.
Permissive (not mandatory) merger legislation was passed by the Colorado General Assembly in 2008. After many months of work by the Retirement System staff, Colorado PERA and DPS, a comprehensive agreement could not be reached and the merger did not take place. In the 2009 session of the General Assembly, mandatory merger legislation was introduced, moved through the house and senate quickly, and was signed into law May 21, 2009. Because the most important responsibility of a Trustee is to ensure that member interests are safeguarded and to take action that protects these interests, the Board considered all aspects before supporting the merger. Norm Ruggles and his staff did an excellent job during both periods of merger legislation development.
The Board of Trustees recently welcomed Duane Heidrick, support staff representative, and John Kechriotis, General Counsel for DPS, Board of Education appointee. Mr. Heidrick is completing the term vacated by Steve Wells, who resigned from the Board in the fall. Mr. Kechriotis replaced Robin Grey as a Board of Education appointee. We appreciate the service of these two new Trustees and their predecessors.
The Board of Trustees re-elected Andrew Raicevich II as Secretary, Darrell Allen as Vice-Chairperson, and Amy Grant as Chairperson. We will serve as the Executive Committee of the Board of Trustees for 2009.

I hope you find the Comprehensive Annual Financial Report informative and of value. The DPSRS Board of Trustees looks forward to our 64th and final year of service to retirees and employees of Denver Public Schools.

## Amy Grant

Board of Trustees Chairperson

## 2009 Board of Trustees



AMY GRANT Chairperson
Support Services 2005-2009


DARRELL ALLEN
Vice-Chairperson
Recognized Expert, Appointed by Board of Trustees 2007-2011


ANDREW RAICEVICH II Secretary
Administrators/ Pro-Tech 2006-2010


JOHN KECHRIOTIS Appointed by Board of Education 2009-2012


THERESA PENA
Appointed by Board of Education 2005-2009


MONICA LOBATO-FOX
Pupil Contact 2007-2011


ANDREW RAICEVICH
Retirees
2009-2012


JOHN MACPHERSON
Retirees
2007-2011


DAWN PALUCH Pupil Contact 2005-2009

PATRICK SMALDONE
Pupil Contact 2005-2009


DUANE HEIDRICK
Support Services 2009-2010


## BOARD OF TRUSTEES 2009

Standing, pictured left to right are: Norman Ruggles (Executive Director), John MacPherson, Andrew Raicevich, Duane Heidrick and Patrick Smaldone. Seated, pictured left to right are: Monica LobatoFox, Andrew Raicevich II (Secretary), Amy Grant (Chairperson), Darrell Allen (Vice-Chairperson) and Dawn Paluch. Not pictured are: Theresa Pena and John Kechriotis.

## 2009 DPS Board of Education

## 2009 DPS BOARD OF EDUCATION

Theresa Peña (President)
Michelle Moss (Vice President)
Jill Conrad (Secretary)
DPS SUPERINTENDENT
Bruce Hoyt
Arturo Jimenez
Tom Boasberg
Jeannie Kaplan
Kevin Patterson

Administrative Organization at January 1, 2009


## O 2009 Board of Trustees Committee Assignments

## EXECUTIVE COMMITTEE

Amy Grant, Chairperson
Darrell Allen, Vice-Chairperson
Andrew Raicevich II, Secretary
DISABILITY APPEAL COMMITTEE

John MacPherson, Chairperson
Amy Grant
Monica Lobato-Fox
Andrew Raicevich II

## AUDIT COMMITTEE

Andrew Raicevich II, Chairperson
Darrell Allen
Dawn Paluch
Andrew Raicevich
ELECTION COMMITTEE
Patrick Smaldone, Chairperson
Monica Lobato-Fox
John MacPherson

## O 2008 Primary Consultants

## ACTUARIAL SERVICES

Gabriel, Roeder, Smith \& Company
One Towne Square
Suite 800
Southfield, MI 48076

## COMPUTER SERVICES

Alfred Munksgard \& Associates 3617 Thousand Oaks Boulevard Suite 120
Thousand Oaks, CA 91320
Hewlett Packard
PO Box 101149
Atlanta, GA 30392-1149

## INDEPENDENT AUDITORS

Clifton Gunderson LLP
370 Interlocken Boulevard Suite 500
Broomfield, CO 80021

## INVESTMENT SERVICES

Callan Associates, Inc.
1660 Wynkoop Street
Suite 950
Denver, CO 80202
MASTER CUSTODIAN
The Northern Trust Company 50 South LaSalle Street Chicago, IL 60675

INVESTMENT COMMITTEE
Darrell Allen, Chairperson
Amy Grant
John MacPherson
Dawn Paluch
Andrew Raicevich

## LEGAL SERVICES

Victor Quinn, Esq.
Waggener \& Foster LLP 400 South Colorado Boulevard Suite 900
Denver, CO 80246
Otten, Johnson, Robinson,
Neff \& Ragonetti, PC
1600 Colorado National
Bank Building
950 17th Street
Denver, CO 80202

A schedule of investment expenses and payments to consultants can be found on page 34 in the Financial Section. A summary schedule of investment fees and commissions can be found on page 42 in the Investment Section.

## FINANCIAL

- Independent Auditor's Report Clifton Gunderson lip

Certified Public Accountants \& Consultants

## Independent Auditor's Report

The Board of Education of School District No. 1 in the City and County of Denver and State of Colorado and the Board of Trustees of the Denver Public Schools Retirement System

We have audited the accompanying statements of fiduciary net assets of the Denver Public Schools Retirement System (the "System") as of December 31, 2008 and 2007, and the related statements of changes in fiduciary net assets for the years then ended. These financial statements are the responsibility of the System's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the System as of December 31, 2008 and 2007, and the changes in fiduciary net assets for the years then ended in conformity with accounting principles generally accepted in the United States of America.

The Management's Discussion and Analysis ("MD\&A") and Required Supplementary Information are not a required part of the basic financial statements, but are supplementary information required by accounting principles generally accepted in the United States of America. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the MD\&A and the Required Supplementary Information. However, we did not audit the information and express no opinion on it.

Our audits were conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The Additional Supporting Schedules are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information has been subjected to the auditing procedures applied in the audits of the basic financial statements, and in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

The introductory section, investment section, actuarial section and statistical section listed in the table of contents have not been subjected to the auditing procedures applied in the audits of the basic financial statements and, accordingly, we express no opinion on them.


Denver, Colorado
June 25, 2009

## O Management's Discussion and Analysis

December 31, 2008 and 2007
Management is pleased to present this discussion and analysis of the financial activities of the System as of and for the years ended December 31, 2008 and 2007.

The System administers the retirement plan for eligible, covered employees and retirees of School District No. 1 in the City and County of Denver and the State of Colorado (School District or DPS), the System, and charter schools within the School District (collectively, District). All assets of the plan are invested in a single trust fund. The fund exists solely to pay for benefit promises made to retired and active members of the System.

## OVERVIEW OF THE FINANCIAL STATEMENTS

The Management's Discussion and Analysis is intended to serve as an introduction to the financial statements. The financial section consists of the basic financial statements and other supplementary information and schedules.

Two financial statements are presented for the System. The Statements of Fiduciary Net Assets present the net assets held in trust for pension benefits at a given point in time. The Statements of Changes in Fiduciary Net Assets indicate the additions and deductions to the plan assets during the specified periods.

The Notes to Financial Statements provide essential information for understanding the data provided in the financial statements by providing a description of the plan, significant accounting policies, investment assets and liabilities, contributions, and benefit enhancements.

The Required Supplementary Information includes two schedules and related notes. The Schedule of Funding Progress provides historical trend information about the actuarially determined funded status of the plan. The Schedule of Employer Contributions provides historical trend information about the annual required contributions (ARC) of the District and the contributions made by the District in relation to the ARC.

Additional Supporting Schedules include the Schedules of Administrative Expenses, the Schedules of Investment Expenses, and the Schedules of Payments to Consultants. These schedules provide additional analysis of the information provided in the financial statements.

## CONDENSED FINANCIAL INFORMATION

## Fiduciary Net Assets at December 31:

|  | 2008 | 2007 | 2006 | $\begin{gathered} 2008 \\ \text { \% Change } \end{gathered}$ | $\begin{gathered} 2007 \\ \text { \% Change } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Assets |  |  |  |  |  |
| Cash and short-term investments | \$ 104,606,089 | \$ 60,190,183 | \$ 127,838,247 | 73.8 \% | (52.9)\% |
| Investments, at fair value | 2,418,631,386 | 3,037,811,511 | 2,862,738,520 | (20.4)\% | 6.1 \% |
| Receivables | 6,084,304 | 5,829,557 | 8,113,232 | 4.4 \% | (28.2)\% |
| Prepaid expenses | 41,341 | 36,836 | 38,406 | 12.2 \% | (4.1)\% |
| Capital assets, net | 189,509 | 254,528 | 322,013 | (25.5)\% | (21.0)\% |
| Investment and other assets | 2,529,552,629 | 3,104,122,615 | 2,999,050,418 | (18.5)\% | 3.5 \% |
| Securities lending collateral | 123,453,383 | 198,060,616 | 224,220,362 | (37.7)\% | (11.7)\% |
| Total assets | 2,653,006,012 | 3,302,183,231 | 3,223,270,780 | (19.7)\% | 2.5 \% |
| Liabilities |  |  |  |  |  |
| Investment settlements and other liabilities | 75,975,949 | 97,151,294 | 144,746,079 | (21.8)\% | (32.9)\% |
| Securities lending obligations | 123,453,383 | 198,060,616 | 224,220,362 | (37.7)\% | (11.7)\% |
| Total liabilities | 199,429,332 | 295,211,910 | 368,966,441 | (32.5)\% | (20.0)\% |
| Net assets | \$ 2,453,576,680 | \$ 3,006,971,321 | \$ 2,854,304,339 | (18.4)\% | 5.4 \% |

## Changes in Fiduciary Net Assetsfor the year ended December 31:

## Additions

Employer contributions
Member contributions
Net investment (loss) income
Security lending net income
Total (reductions) additions

## Deductions

Benefit payments
Refunds
Administrative expenses
Total deductions
Net (decrease) increase

| 2008 | 2007 | 2006 | $\begin{gathered} 2008 \\ \text { \% Change } \\ \hline \end{gathered}$ | $\begin{gathered} 2007 \\ \text { \% Change } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: |
| \$ 434,811,169 | \$ 40,572,810 | \$ 33,684,185 | 971.7 \% | 20.5 \% |
| 29,904,361 | 28,184,570 | 28,098,414 | 6.1 \% | 0.3 \% |
| (803,818,096) | 290,650,600 | 321,287,132 | (376.6)\% | (9.5)\% |
| 1,288,822 | 539,084 | 405,049 | 139.1 \% | 33.1 \% |
| $(337,813,744)$ | 359,947,064 | 383,474,780 | (193.8)\% | (6.1)\% |
| (204,417,308) | $(195,632,703)$ | $(186,215,600)$ | 4.5 \% | 5.1 \% |
| $(7,667,059)$ | $(8,234,446)$ | $(7,460,137)$ | (6.9)\% | 10.4 \% |
| $(3,496,530)$ | $(3,412,933)$ | $(3,345,367)$ | 2.5 \% | 2.0 \% |
| $(215,580,897)$ | (207,280,082) | $(197,021,104)$ | 4.0 \% | 5.2 \% |
| \$ (553,394, 641 ) | \$ 152,666,982 | \$ 186,453,676 | (462.5)\% | (18.1)\% |

## FINANCIAL HIGHLIGHTS AND ANALYSES

The System is governed by the Retirement and Benefit Plan (Plan) as authorized by Part 2 of Title 22, Article 64 of the Colorado Revised Statutes (C.R.S.). The main purpose of the System is to provide a primary source of lifetime retirement income relative to service at the time of retirement. It is the objective of the System to provide these benefits in a prudent, responsible, and cost-effective manner. Plan net assets are used to pay current and future benefits to retired plan members. On January 1, 2010, the System will merge into Colorado Public Employees' Retirement Association (Colorado PERA) as a separate division with Colorado PERA.
The decrease in net assets primarily is due to investment losses as a result of significant investment market declines in 2008 and an increase in benefit payments. The total investment return for 2008 was ( 24.3 )\%. Domestic and international equity, which compose $46 \%$ of the investment portfolio asset allocation, had the greatest declines at (35.3)\% and (41.7)\%, respectively. Benefit payments increased by $\$ 8.8$ million or $4.5 \%$ in 2008 . The increase in net assets over the five-year period of $2.1 \%$ and ten-year period of $11.5 \%$ declined dramatically from the $45.3 \%$ and $47.3 \%$, respectively, as of December 31, 2007. The decrease in net assets was offset by a one-time payment from the School District of $\$ 397.8$ million to fund the unfunded actuarial accrued liability as of December 31, 2007.

| $\mathbf{( \$ 0 0 0 )}$ | $\mathbf{2 0 0 8}$ | $\mathbf{2 0 0 7}$ | $\mathbf{2 0 0 6}$ | $\mathbf{5}$ years | $\mathbf{1 0}$ years |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Plan net assets | $\$ 2,453,577$ | $\$ 3,006,971$ | $\$ 2,854,304$ | $\$ 2,403,545$ | $\$ 2,199,990$ |
| Yearly $\%$ change | $(18.4) \%$ | $5.4 \%$ | $7.0 \%$ | $2.1 \%$ | $11.5 \%$ |

The net investment loss of $\$ 803.8$ million represents a decrease of $376.6 \%$ from the investment income for 2007, primarily due to net depreciation in the fair value of investments of $\$ 890.1$ million. As a result of the market declines in 2008, the total investment returns for the one, three, five, and ten-year periods are below the actuarial assumed rate of investment return for each of the periods. The assumed actuarial rate of return is $8.50 \%$ for the one and three-year periods and $8.75 \%$ for the five and ten-year periods as of December 31, 2008.

| Total returns | 1 year | 3 year | 5 year | 10 year |
| :--- | :---: | :---: | ---: | ---: |
| 2008 | $(24.3) \%$ | $(2.1) \%$ | $3.2 \%$ | $5.3 \%$ |
| 2007 | $10.1 \%$ | $11.1 \%$ | $13.7 \%$ | $9.7 \%$ |
| 2006 | $12.6 \%$ | $12.0 \%$ | $10.4 \%$ | $10.3 \%$ |

The Board of Trustees, through the Investment Committee, has responsibility for the investment of plan assets. Plan assets are invested according to the Statement of Investment Objectives and Policies (SIOP) approved by the Trustees. The SIOP sets forth the guidelines for the strategic target allocation of investment assets. Each strategic asset class has an optimal target with high and low ranges. Net cash and debt in managed accounts are included in measuring the progress in reaching the targets. Investment allocations in all asset classes are within acceptable ranges for 2008. The Board of Trustees reviews the SIOP annually as required by C.R.S 22-64-703(3). Asset allocation is an investment method used to achieve the higher than expected investment returns. The purpose of asset allocation is to reduce investment risk by diversifying the investment assets among several asset classes.
Shown below is an analysis of the components of the total investment return for 2008 versus a measurement benchmark return and the actual asset allocations and target ranges as of December 31, 2008. Cash is not an asset class, but represents $2 \%$ of the investment assets.

| Asset Class | Return | Benchmark | Portfolio \% | Target Ranges |
| :--- | :---: | :---: | :---: | :---: |
| Domestic stocks | $(35.3) \%$ | $(36.9) \%$ | $31 \%$ | $29 \%-39 \%$ |
| International stocks | $(41.7) \%$ | $(43.4) \%$ | $15 \%$ | $13 \%-23 \%$ |
| Fixed income | $(6.5) \%$ | $5.2 \%$ | $22 \%$ | $16 \%-22 \%$ |
| Mortgage investments | $(8.0) \%$ | $(4.9) \%$ | $14 \%$ | $8 \%-18 \%$ |
| Equity real estate | $(11.8) \%$ | $(6.5) \%$ | $10 \%$ | $6 \%-12 \%$ |
| Alternative assets | $(11.5) \%$ | $(36.8) \%$ | $6 \%$ | $2 \%-12 \%$ |



The number of benefit recipients increased 3.8\% over the past three years from 5,961 to 6,186 . Since 1998, the number of benefit recipients increased by 1,149 or $2.1 \%$ annually on average.

|  | $\mathbf{2 0 0 8}$ | $\mathbf{2 0 0 7}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: |
| Benefit recipients | 6,186 | 6,168 | 6,069 |
| Yearly \% change | $0.3 \%$ | $1.6 \%$ | $1.8 \%$ |
| Net increase | 18 | 99 | 108 |
| New recipients | 238 | 299 | 319 |

The following table reflects the average monthly benefit for service retirements. Over the ten-year period from 1998 , the average benefit increased by $\$ 1,049$. The basic benefit increased $44.2 \%$ or $\$ 622$ and the benefit increases portion of the benefit increased $99.8 \%$ or $\$ 427$ over this period. The average annual increase is $4.6 \%$.

|  | 2008 | 2007 | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: |
| Average benefit | $\$ 2,884$ | $\$ 2,787$ | $\$ 2,694$ |
| Yearly \% change | $3.5 \%$ | $3.5 \%$ | $3.8 \%$ |

The ratio of active members to retired members of the System is 1.22 to 1 compared to 1.29 to 1 in 1998 . Over the past ten years, the number of members contributing into the System increased by $16.8 \%$. During the same period, the number of retired members increased by $22.8 \%$.

|  | 2008 | 2007 | 2006 |
| :---: | :---: | :---: | :---: |
| Members contributing | 7,560 | 7,303 | 7,130 |
| Yearly \% change | 3.5\% | 2.4\% | (1.1)\% |
| Benefit recipients | 6,186 | 6,168 | 6,069 |
| Yearly \% change | 0.3\% | 1.6\% | 1.8 \% |
| Ratio contributing/retired | 1.22 | 1.18 | 1.17 |

Member contributions of $\$ 29.9$ million consist of normal $8 \%$ contributions, payments to qualify prior District service, and purchase of non-covered employment. Total contributions from members increased $6.1 \%$ from 2007. Normal contributions increased $8.7 \%$ from 2007 primarily due to increases in salary and the number of contributing members.
Over the past ten years, normal contributions increased $5.6 \%$ annually on average. Contributions for prior service and the purchase of non-covered employment decreased 38.9\% from 2007.

| Member <br> contributions | $\mathbf{2 0 0 8}$ | $\mathbf{2 0 0 7}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: |
| Normal | $\$ 28,950,786$ | $\mathbf{2 0 0 6}$ | $26,623,746$ |
| Prior service | 398,461 | 520,801 | 456,514 |
| Non-covered <br> employment | 555,114 | $1,040,023$ | $2,098,334$ |

## Total member

contributions \$29,904,361 \$ 28,184,570 \$ 28,098,414

The measure of the progress in accumulating sufficient assets to meet the long-term benefit obligations is the funded status or the funded ratio of the plan. The funded ratio is the actuarial value of assets expressed as a percentage of the actuarial accrued liability. The funding policy is the method to provide benefits specified by the Plan through the amounts and timing of contributions from the employers and the contributing members. The excess of the actuarial accrued liability over the actuarial value of assets is the unfunded actuarial accrued liability or UAAL. The actuarial value of assets differs from the year-end fair value of plan net assets by smoothing the effects of market fluctuations. In the calculation of the actuarial value of assets, $25 \%$ of the difference between the actual and assumed investment returns is included in the actuarial value of assets. The smoothing method lessens the need to adjust the contribution rates based on the volatility in market conditions. During extended periods of market declines, the plan net assets usually will be less than the actuarial value of assets.

The actuarial accrued liability (AAL) represents the present value of accrued benefits payable to current members as of the end of a plan year. Future service is not included in the AAL. The AAL increased $3.2 \%$ or $\$ 109.8$ million from 2007. As of December 31, 2008, the actuarial value of assets decreased by less than $1.0 \%$ from 2007 . The funded ratio decreased to $84.3 \%$ from $87.7 \%$. The funded ratio is $70.3 \%$ on a market value basis.
Below is a schedule of the actuarial asset values, AAL, and UAAL, along with the respective funded ratios.

| (\$000) | $\mathbf{2 0 0 8}$ | $\mathbf{2 0 0 7}$ | $\mathbf{2 0 0 6}$ | $\mathbf{2 0 0 4}$ | $\mathbf{1 9 9 9}$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Actuarial accrued liability | $\$ 3,493,011$ | $\$ 3,383,258$ | $\$ 3,233,713$ | $\$ 2,960,990$ | $\$ 1,983,400$ |
| Yearly $\%$ change | $3.2 \%$ | $4.6 \%$ | $5.5 \%$ | $6.0 \%$ | $4.7 \%$ |
| Actuarial asset value | $2,944,292$ | $2,968,794$ | $2,854,304$ | $2,611,524$ | $2,044,332$ |
| Yearly \% change | $(0.83) \%$ | $4.0 \%$ | $5.9 \%$ | $3.2 \%$ | $8.2 \%$ |
| UAAL | $\$ 548,719$ | $\$ 414,464$ | $\$ 379,409$ | $\$ 349,466$ | $\$(60,932)$ |
| Yearly \% change | $32.4 \%$ | $9.2 \%$ | $1.9 \%$ | $33.4 \%$ | $(1,321.8) \%$ |
| Funded ratio | $84.3 \%$ | $87.7 \%$ | $88.3 \%$ | $88.2 \%$ | $103.1 \%$ |

In addition to investment earnings and member contributions at $8 \%$, contributions at the ARC rate from employers of the plan are required to maintain the sound financial condition of the plan. The current funding policy rate for employer contributions has lagged behind the actuarially recommended contribution rate from 2002 through 2007. The employer contribution rate was reduced to $7.58 \%$ from $14.01 \%$ for the one-year period from July 1, 2008, through June 30, 2009, as a result of the one-time payment of $\$ 397.8$ million by the School District to fund fully the unfunded actuarial accrued liability. The employer contribution rate of $7.58 \%$ covers only the actuarial normal cost or current service cost. The significant decrease in the actuarial value of assets in 2008 created an additional unfunded liability at December 31, 2008. Employer contribution rates at or below normal cost do not finance unfunded accrued liabilities. While employer contribution rates remain at or below normal cost, the funded status of the Plan will continue to decrease in the future even if the market returns return to assumed levels.

Effective July 1, 2005, the funding policy changed for employer contributions to achieve funding at the full ARC rate by July 1, 2008. The funding policy for 2008 was amended and reflects the effect on the $\$ 397.8$ million contribution by the School District. Shown below is a schedule of employer contribution rates, according to the Plan, compared to the ARC and the adopted rate, as of July 1 for each year. The Board of Education believed it actuarially sound to establish the $0.49 \%$ contribution employer rate for the period from July 1, 2009, through December 31, 2009. (See footnote 9, Subsequent Events).

| Beginning July 1, | 2009 | 2008 | 2007 |
| :--- | ---: | ---: | :---: |
| Recommended | $13.92 \%$ | $14.01 \%$ | $14.51 \%$ |
| Funding policy | $13.92 \%$ | $7.58 \%$ | $12.83 \%$ |
| Adopted | $0.49 \%$ | $7.58 \%$ | $12.83 \%$ |

Administrative expenses of the System increased 2.5\% from 2007. This compares to a $2.0 \%$ increase in expenses in 2007. The administrative expenses represent $0.14 \%$ of plan net assets $(0.11 \%$ in 2007). The increase in 2008 primarily is due to a $3.5 \%$ increase in personnel services and a $6.8 \%$ increase in professional services. Personnel services expenses included accrual of one-time payments to retain certain staff members. The increase in professional service expenses primarily is due to a significant increase in legal fees.

Basic Financial Statements

## STATEMENTS OF FIDUCIARY NET ASSETS

As of December 31, 2008 and 2007

|  | 2008 |  | 2007 |  |
| :---: | :---: | :---: | :---: | :---: |
| Assets |  |  |  |  |
| Cash and short-term investments | \$ | 104,606,089 | \$ | 60,190,183 |
| Receivables |  |  |  |  |
| Accrued interest and dividends |  | 4,151,902 |  | 3,849,044 |
| Contributions |  | 990,750 |  | 1,328,536 |
| Investment settlements |  | 545,008 |  | - |
| Other |  | 396,644 |  | 651,977 |
| Total receivables |  | 6,084,304 |  | 5,829,557 |
| Investments, at fair value |  |  |  |  |
| Domestic stocks |  | 738,170,024 |  | 1,047,690,088 |
| International stocks |  | 381,979,629 |  | 582,712,377 |
| Alternative assets |  | 148,571,212 |  | 138,014,219 |
| Corporate securities |  | 406,714,719 |  | 463,214,422 |
| Government securities |  | 173,853,763 |  | 237,804,994 |
| Mortgage investments |  | 333,999,035 |  | 256,343,443 |
| Equity real estate |  | 235,343,004 |  | 312,031,968 |
| Total investments |  | 2,418,631,386 |  | ,037,811,511 |
| Securities lending collateral |  | 123,453,383 |  | 198,060,616 |
| Prepaid expenses |  | 41,341 |  | 36,836 |
| Capital assets, at cost, net of accumulated depreciation of $\$ 942,985$ ( $\$ 837,528$ in 2007) |  | 189,509 |  | 254,528 |
| Total assets |  | 2,653,006,012 |  | 3,302,183,231 |
| Liabilities |  |  |  |  |
| Accounts payable and accrued expenses |  | 11,828,460 |  | 9,857,586 |
| Investment settlements |  | 64,147,489 |  | 87,293,708 |
| Securities lending obligations |  | 123,453,383 |  | 198,060,616 |
| Total liabilities |  | 199,429,332 |  | 295,211,910 |
| Net assets held in trust for pension benefits (A schedule of funding progress for the Plan is presented on page 31.) |  | 2,453,576,680 |  | ,006,971,321 |

See accompanying notes to financial statements.

## STATEMENTS OF CHANGES IN FIDUCIARY NET ASSETS

For the Years Ended December 31, 2008 and 2007

|  |  | 2008 | 2007 |  |
| :---: | :---: | :---: | :---: | :---: |
| Additions |  |  |  |  |
| Contributions |  |  |  |  |
| Employer | \$ | 434,811,169 | \$ | S 40,572,810 |
| Member |  | 29,904,361 |  | 28,184,570 |
| Total contributions |  | 464,715,530 |  | 68,757,380 |
| Investment income |  |  |  |  |
| Interest |  | 48,317,697 |  | 38,196,077 |
| Net (depreciation) appreciation in fair value of investments |  | $(890,059,163)$ |  | 190,447,950 |
| Dividends |  | 27,617,694 |  | 29,181,290 |
| Equity real estate |  | 22,851,022 |  | 14,258,357 |
| Alternative assets |  | $(244,537)$ |  | 29,918,697 |
| Other |  | 556,431 |  | 206,369 |
| Total investment (loss) income |  | $(790,960,856)$ |  | 302,208,740 |
| Investment expense |  | $(12,857,240)$ |  | $(11,558,140)$ |
| Net investment (loss) income |  | $(803,818,096)$ |  | 290,650,600 |
| Securities lending income |  | 5,431,432 |  | 11,081,318 |
| Securities lending expense |  | $(4,142,610)$ |  | $(10,542,234)$ |
| Net income from securities lending |  | 1,288,822 |  | 539,084 |
| Total (reductions) additions |  | $(337,813,744)$ |  | 359,947,064 |
| Deductions |  |  |  |  |
| Benefits paid to regular retirees |  | $(196,229,960)$ |  | $(187,655,763)$ |
| Benefits paid to disability retirees |  | $(6,703,718)$ |  | $(6,554,126)$ |
| Benefits paid to survivors |  | $(1,483,630)$ |  | $(1,422,814)$ |
| Refunds of contributions |  | (7,667,059) |  | $(8,234,446)$ |
| Administrative expenses |  | $(3,496,530)$ |  | $(3,412,933)$ |
| Total deductions |  | $(215,580,897)$ |  | $(207,280,082)$ |
| Net (decrease) increase in net assets |  | $(553,394,641)$ |  | 152,666,982 |
| Net assets held in trust for pension benefits |  |  |  |  |
| Beginning of year |  | 3,006,971,321 |  | 2,854,304,339 |
| End of year |  | 2,453,576,680 |  | 3,006,971,321 |

See accompanying notes to financial statements.

December 31, 2008 and 2007

## (1) Description of the Plan

The Board of Education of School District No. 1 in the City and County of Denver and State of Colorado (Board of Education) established the System on December 1, 1945, which is a cost-sharing multiple-employer defined benefit pension plan under Colorado law. The Board of Education adopted the Retirement and Benefit Plan, as amended, to provide defined retirement, death, and disability benefits to participating members. Participation in the retirement plan is mandatory for all full-time employees of the School District hired after December 1, 1945, and of the System, and of Charter Schools within the School District, established under the Colorado Charter Schools Act of 1993.

The Board of Trustees (Board) is an 11-member body with the exclusive authority to invest and manage the assets of the System, pay benefits, and otherwise administer the System. The Board is composed of 6 elected active members, 2 elected retired members of the System, 2 members appointed by the Board of Education of the School District, and 1 member, appointed by the other Board members, with demonstrated expertise in pension administration or in investment matters.

At December 31, 2008 and 2007, the System's membership consisted of the following:

Terminating members, electing to leave their accumulated contributions in the System, are eligible for deferred retirement provided they have a minimum of 5 years of service.
Employees who have attained either age 55 with a minimum of 25 years of civilian service in a taxsupported institution, of which 15 years must have been service qualified with the District, or age 65 with at least 5 years of earned service, or age 50 with at least 30 years of earned service, are entitled to regular

The Plan provides an Annual Retirement Allowance Adjustment (ARAA) increase in retired members' benefits. The annual percentage increase for each member is $3.25 \%$ of the member's retirement allowance. For individuals who, on or after July 1, 2005, become members or rejoin the retirement system after having withdrawn their contribution balances, the increase in their retired member benefits is equal to the lesser of $3 \%$ or the increase in the Consumer Price Index for urban wage earners and clerical workers for the preceding year compounded.
If a member resigns prior to retirement, the member is entitled to a refund of accumulated member contributions, which includes interest. Member accounts are credited with interest on the last day of each month based upon the member's balance as of the beginning of that month. The following is a table of the interest rates applied to member accounts:

| December 31, | Rate |
| :--- | :---: |
| 1986 and prior years | $3 \%$ |
| 1987 through 1990 | $9 \%$ |
| 1991 through present | $5 \%$ |

retirement benefits. Employees who meet the above criteria at retirement are entitled to regular retirement benefits, payable monthly for life, in an amount equal to $2.50 \%$ of their monthly highest average salaries (HAS) for each year of earned service to the date of retirement. The monthly HAS is defined as the average of the highest 36 months of compensation earned by the employee throughout employment with the District or career average salary, whichever is greater.
Beyond each full year of service, any full month(s) of service are credited proportionally. Optional early retirement with a reduction of benefits may be elected by a member at an age younger than 55 with 25 years of District service or at age 55 or beyond with 15 years of District service. The benefit reduces by $4 \%$ for each year of age or service the member lacks in fulfilling the minimum requirements for a regular retirement. A 6\% reduction is applied for an individual who, on or after July 1, 2005, becomes a member or rejoins the System after having taken a refund of contributions.

The Plan also provides for a disability retirement. Members with 5 or more years of earned service, who become permanently incapacitated from performing their duties, are eligible for disability retirement. The amount of the disability benefit is calculated in the same manner as for a regular retirement under the provisions of a single life annuity. Members with at least 25 years of earned and outside service at the date of retirement can elect at age 55 (age 50 with 30 years of earned service) to recalculate their benefits as a regular retirement. Otherwise, recalculation of a disability retirement occurs at age 65. Beginning with 1999 and under prescribed circumstances, disability retirees with fewer than 25 years of service can apply to qualify full years after retirement to be used when their disability benefits are recalculated to regular retirement benefits. The maximum number of earned and additional qualified years cannot exceed 25 at the date of recalculation, unless the total number of years of earned service at the effective date of disability retirement exceeds 25 , in which case such number of years is used to compute the recalculated benefit.
Liquidation of the System can be initiated by either the Board of Education or by vote of the members. In the event of liquidation, the assets would be distributed as specified in the Plan.

## REPORTING ENTITY

The Board is responsible for the general operations and fiscal matters of the System. These responsibilities include the ability to designate management, select the System's independent actuary and auditor, and determine investment policies.

The System is a body corporate and an instrumentality of the School District; it is not an agency of the School District. In addition, the System is not subject to administrative direction by the School District, and the assets of the System are not available to the School District. Accordingly, the financial statements of the System are not included in the financial statements of the School District or any other organization.

## PENSION PLAN DISCLOSURE FOR SYSTEM EMPLOYEES

The employees of the System are members of the plan and accrue benefits as would any other member as described above. The System's employer contributions for the years ending December 31, 2008, 2007, and 2006, of $\$ 144,638, \$ 175,214$, and $\$ 148,074$, respectively, are equal to its required contributions for each year. The System's member contributions for the years ending December 31, 2008, 2007, and 2006 are $\$ 112,969, \$ 116,592$, and $\$ 114,849$, respectively.

In addition, the System contributed $\$ 161,476, \$ 179,614$, and $\$ 180,313$, for the same periods, for the cost of the pension certificates of participation (PCOP) issued by the School District on July 17, 1997 and taxable variable rate certificates of participation (TVRCOP) issued April 24, 2008.

## (2) Significant Accounting Policies

## BASIS OF ACCOUNTING AND PRESENTATION

The financial statements of the System are prepared using the economic resources measurement focus and the accrual basis of accounting. Investment income is recorded when it is earned. Expenses are recorded when liabilities are incurred. Member and employer contributions are recorded in the period in which the contributions are due. Benefit and refund payments are recorded in the period in which the liabilities are due and payable.

The financial statements are presented in accordance with Governmental Accounting Standards Board (GASB) Statement Nos. 25, $28,34,37,40$ and 50 , and generally accepted accounting principles that apply to governmental accounting for fiduciary funds.

## INVESTMENTS

System investments are presented at fair value or estimated fair value. Securities traded on a national or international exchange are valued at the last reported sales price. Securities traded over-the-counter are valued at the last bid price. The values of corporate and government securities are based on comparable securities with similar yield and risk factors. The System's equity in real estate investments are stated at estimated fair value at the date of the financial statements. Generally, this value is determined periodically (usually annually) by the advisor or independent appraisers or more frequently if management of the applicable funds has determined that there has been a significant change in the economic circumstances related to the investment. The fair values of commercial mortgage investments are based upon current interest rates and prepayment assumptions. The value of alternative assets is determined by the manager based upon economic and market conditions of the underlying investments. For determining realized gains and losses, the costs of corporate stocks are calculated on the average cost basis. The costs of all other investments are determined based on specific identification.


## FEDERAL INCOME TAX STATUS

The System is qualified under Internal Revenue Code (IRC) Section 401(a). The System is a governmental plan as described in IRC Section $414(\mathrm{~d})$. It therefore, is exempt from federal income taxation under IRC Section 501(c)(25)(C)(ii).

## CAPITAL ASSETS

Capital assets are recorded at cost, less accumulated depreciation. Costs of major additions and improvements in excess of $\$ 500$ are capitalized. Expenses for maintenance and repairs are charged as deductions as incurred. Depreciation is calculated using the straight-line method based on estimated useful lives of four and five years.

## COMPENSATED ABSENCES OF SYSTEM STAFF

Sick and personal leave and vacation allowances are combined into paid leave. Accumulated paid leave is payable upon termination or retirement and is based on the employees' salary at termination or retirement. At December 31, 2008, the liability for accumulated paid leave was $\$ 280,090$ ( $\$ 341,566$ in 2007).

## RISK MANAGEMENT

The System is exposed to various risks related to theft, damage, and destruction of assets, errors, and omissions, injuries to employees and court challenges to fiduciary decisions. To insure against such risks of losses, the System carries policies of fiduciary liability insurance, general liability insurance, property insurance, and a crime and fidelity bond. Employees of the System receive health, life, dental, and vision insurance coverage under the policies of the School District. There have been no insurance claims against the System for the past three years.

## USE OF ESTIMATES

Preparation of the financial statements, in conformity with accounting principles generally accepted in the United States of America, requires that management make certain estimates and assumptions. These estimates and assumptions affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of additions and deductions during the reporting period. Actual results could differ significantly from these estimates.

## (3) Deposits and Investments Risk Disclosures

## INVESTMENT AUTHORITY

The System is authorized to invest in a broad array of investments as described in the Statement of Investment Objectives and Policies, dated January 7, 2008. These include, but are not limited to the following:

- Equity securities, both domestic and international, of publicly traded companies and related derivative securities
- Fixed income securities and related derivative securities
- Equity and debt investments in income-producing real estate
- Alternative assets including private (not publicly traded) equity or debt investments
- Short-term investment funds with the custodian bank


## CONCENTRATIONS OF CREDIT RISK

The System's primary investment policy objective of the fixed income portfolio is to generate a rate of return from its investments in fixed income instruments that is greater than the U.S. fixed income market net of costs and fees over a complete market cycle.

Mortgage investments represent investments in real estate loans collateralized by the related properties, mortgage participation certificates, mortgage participation funds, and commercial mortgage-backed securities. Investments in corporate stocks and bonds are diversified by: (1) geographic area primarily within the United States for bonds and worldwide for corporate stocks, (2) industry group, and (3) sensitivity to general economic cycles. Generally, these investments represent non-collateralized ownership in, or lending to, publicly held corporations traded on domestic and international markets. U.S. government securities are composed of securities with varying maturities and interest rates and are backed by the full faith and credit of the U.S. government. The above limitations and the System's diversification over several asset classes are intended to reduce the overall investment risk exposure. Concentrations in the securities of a single entity are limited to not more than $5 \%$ of the fixed income securities at market value. Corporate securities of a single industry are limited to not more than $25 \%$ of the fixed income securities at market value. These limitations do not apply to U.S. Government and agency guaranteed securities. Individual manager contracts include specific guidelines regarding assets under management by the manager. In addition, margin and net shortsale positions are prohibited. The use of derivative securities is permitted, but the use of derivatives should not increase the risk profile or leverage the manager's account.

## CASH AND SHORT-TERM INVESTMENTS

## Custodial Credit Risk

The custodial credit risk for cash and short-term deposits is the risk that, in the event of the failure of the System's depositary financial institution, the System will not be able to recover the deposits or will not be able to recover collateral securities that are in the possession of an outside third party.

The System does not have a policy on custodial credit risk. The System's cash and short-term investments are not exposed to custodial credit risk.

Short-term government securities are registered in the System's name and are held by the System's custodial bank, the Northern Trust Company (NTC). Variable short-term accounts with the custodial bank are collateralized by underlying securities held by the custodial bank in an institutional trust.
The carrying amount of the System's cash deposits at December 31, 2008, was $\$ 306,498$ and the bank balance was $\$ 1,369,118$ (\$239,692 and \$713,816 in 2007, respectively). Of the bank balances at December 31, 2008, and 2007, $\$ 250,000(\$ 100,000$ in 2007) is covered by federal depository insurance and $\$ 1,119,118$ ( $\$ 613,816$ in 2007) is covered by the provisions of the Colorado Public Deposit Protection Act and is collateralized in single institution pools with securities held by the pledging institution's trust department or agent, but not in the System's name. The table below summarizes the fair value of cash and short-term investments held by the System as of December 31.

|  | 2008 | 2007 |
| :---: | :---: | :---: |
| General operating bank accounts | \$ 306,498 | \$ 239,692 |
| Short-term government securities | - | 1,744,162 |
| Variable short-term account with custodial bank | 104,299,591 | 58,206,329 |
| Total cash and short-term investments | \$ 104,606,089 | \$ 60,190,183 |

## INVESTMENTS

An objective for fixed income investments is to provide for potential above average long-term investment returns utilizing debt securities and derivative securities of various credit quality, sectors, currencies, and structures. There is no policy restricting these characteristics relative to debt-related securities unless otherwise restricted by the System in the investment manager's advisory agreement. The following table presents the fair value of the System's investments at December 31, 2008, by investment type.

| Investment type | Fair value |  |
| :--- | ---: | ---: |
| Domestic equity securities | $\$$ | $397,216,829$ |
| Domestic corporate securities | $130,623,871$ |  |
| U.S. Government and agency securities | $128,786,625$ |  |
| Mortgage investments | $239,752,928$ |  |
| Investments funds |  |  |
| $\quad$ Domestic equity securities | $337,004,218$ |  |
| International equity securities | $381,956,762$ |  |
| Domestic corporate securities | $268,006,667$ |  |
| U.S. Government and agency securities | $35,276,904$ |  |
| Mortgage investments | $94,246,107$ |  |
| Real estate | $235,343,004$ |  |
| Alternative assets | $148,571,212$ |  |
| Investments held under securities |  |  |
| lending agreements |  |  |
| Domestic corporate securities | $8,084,181$ |  |
| Domestic equity securities | $103,948,977$ |  |
| International equity securities | 22,867 |  |
| U.S. Government and agency securities | $9,790,234$ |  |
| Total investments | $\mathbf{\$ 2 , 4 1 8 , 6 3 1 , 3 8 6}$ |  |
| Securities lending collateral pool | $\mathbf{\$}$ | $123,453,383$ |

## Credit Risk Debt Securities

Credit risk is the risk that an issuer or other counterparty to an investment in debt securities will not fulfill its obligation. The following table lists the credit quality of investments according to Standard \& Poor's credit ratings. The System does not have a policy on credit risk.

| Quality Rating | Fair Value |
| :--- | ---: |
| AAA | $\$ 315,399,764$ |
| AA | $21,089,194$ |
| AA- | 629,985 |
| A+ | $2,471,961$ |
| A | $51,535,351$ |
| A- | $9,864,641$ |
| BBB+ | $14,165,442$ |
| BBB | $81,245,165$ |
| BBB- | $8,799,140$ |
| BB+ | 923,907 |
| BB | $22,820,436$ |
| BB- | 22,650 |
| B | $12,351,711$ |
| B- | 268,224 |
| CCC | $3,359,865$ |
| CC | 610,286 |
| C | 96,750 |
| D | $1,560,249$ |
| Not rated | $33,353,761$ |
| Total debt securities | $\$ 580,568,482$ |

## Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of debt securities. One measurement of interest rate risk is the investment's duration. Duration is a measure of an investment's exposure to fair value changes from changing market interest rates using the present value of cash flows, weighted for those cash flows as a percentage of the investment's full price. The System does not have a policy on interest rate risk. The table on page 26 lists the effective weighted duration in years of investments by investment type.

| Investment Type | Fair Value | Effective Wgt. Duration |
| :--- | ---: | :---: |
| Asset backed securities | $\$ 15,557,736$ | 0.86 |
| Commercial mortgage backed securities | $12,739,626$ | 3.99 |
| Corporate bonds | $83,819,933$ | 4.27 |
| Corporate convertible bonds | 28,550 | 1.01 |
| Non-government backed C.M.O.s | $22,177,719$ | 1.99 |
| Government agencies | $2,290,997$ | 7.23 |
| Government bonds | $3,336,700$ | 8.23 |
| Government mortgage backed securities | $120,988,521$ | 2.48 |
| Index linked government bonds | $11,960,641$ | 9.53 |
| Other | $4,384,489$ | 0.36 |
| Pooled investments | $\mathbf{3 0 3 , 2 8 3 , 5 7 0}$ | 3.84 |
| Total debt securities | $\mathbf{\$ 5 8 0 , 5 6 8 , 4 8 2}$ |  |

## Foreign Currency Rate Risk

Foreign currency risk is the risk that changes in monetary exchange rates will adversely affect the fair value of an investment or a deposit in terms of U.S. dollars. The System does not have a policy on foreign currency risk. The following table lists the foreign currency risk of international equity investments denominated by foreign currency.

| Currency |  | Equities | Fixed Income | Alternatives |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Australian dollar | \$ | 19,064,310 | \$ | \$ | \$ | 19,064,310 |
| Bermudian dollar |  |  | 496,595 |  |  | 496,595 |
| Brazilian real |  | 2,455,268 | 1,250,813 |  |  | 3,706,081 |
| British pound |  | 82,273,103 | 2,642,553 |  |  | 84,915,656 |
| Canadian dollar |  | 13,207,537 | 224,802 |  |  | 13,432,339 |
| Cayman Islands dollar |  |  | 125,491 |  |  | 125,491 |
| Chilean peso |  |  | 153,518 |  |  | 153,518 |
| Chinese yuan |  | 1,192,982 |  |  |  | 1,192,982 |
| Danish krone |  | 2,692,249 |  |  |  | 2,692,249 |
| Euro |  | 95,733,063 | 3,015,758 | 13,125,217 |  | 111,874,038 |
| Hong Kong dollar |  | 7,600,933 |  |  |  | 7,600,933 |
| Indian rupee |  | 782,347 | 326,048 |  |  | 1,108,395 |
| Israeli shekel |  | 4,724,248 |  |  |  | 4,724,248 |
| Japanese yen |  | 85,936,201 | 519,140 |  |  | 86,455,341 |
| Kazakhstan tenge |  |  | 553,000 |  |  | 553,000 |
| Malaysian ringgit |  | 22 |  |  |  | 22 |
| Mexican peso |  | 1,671,960 | 1,565,093 |  |  | 3,237,053 |
| New Zealand dollar |  | 156,157 |  |  |  | 156,157 |
| Norwegian krone |  | 2,691,617 |  |  |  | 2,691,617 |
| Russian rouble |  |  | 981,087 |  |  | 981,087 |
| Singapore dollar |  | 2,974,217 |  |  |  | 2,974,217 |
| South Korean won |  | 1,363,617 |  |  |  | 1,363,617 |
| Swedish krona |  | 3,286,800 |  |  |  | 3,286,800 |
| Swiss franc |  | 37,733,412 |  |  |  | 37,733,412 |
| Taiwan dollar |  | 317,053 |  |  |  | 317,053 |
| United Arab Emirates dirham |  | 375,148 |  |  |  | 375,148 |
| Total foreign currency risk |  | 366,232,244 | 11,853,898 | 13,125,217 |  | 391,211,359 |
| United States dollar |  | 15,747,385 |  |  |  | 15,747,385 |
| Total |  | 381,979,629 | \$ 11,853,898 | \$ 13,125,217 |  | 406,958,744 |

## DERIVATIVE FINANCIAL INSTRUMENTS

The System invests in derivative financial instruments as authorized in the Statement of Investment Objectives and Policies of the System. As of December 31, 2008 and 2007, the System had derivative financial instruments with off-balance sheet risk including options, futures, interest rate swaps, and credit default swaps. The System invests in derivative financial instruments principally for yield curve and interest rate risk management. Option contracts convey rights between contracting parties to buy or sell the underlying securities. The owner of a call option has the right to purchase the security, and the owner of a put option has the right to sell the security. The System buys and sells option contracts actively traded on major exchanges. The value of option contracts generally is based on the Black-Scholes model. As of December 31, the fair value of the option contracts was $\$(926,544)$ in 2008 and $\$(392,931)$ in 2007.
Futures contracts represent commitments to purchase or sell securities at a future date and at a specified price. Futures are exchange traded, and the exchange assumes the risk of nonperformance by the counterparty.
Interest rate swaps represent contractual agreements between counterparties to exchange interest rate cash flows for a specified period and based upon notional amounts. One of the counterparties is obligated to make a net cash settlement at the maturity of the contract. The System is exposed to credit risk in the event of nonperformance of the counterparty to the contract. The value of swaps is determined by use of a swap calculator provided by Bloomberg. As of December 31, the fair value of these contracts was $\$ 342,174$ in 2008 and $\$(145,828)$ in 2007.
Index or total return swaps represent contractual agreements between counterparties to exchange cash flows by reference to specified indexes on notional principal amounts for a specified period. As of December 31, the fair value of these contracts was $\$ 0$ in 2008 and $\$ 44,844$ in 2007.

Credit default swaps (CDS) are over-the-counter contracts that transfer credit risk of a specified obligor between two counterparties. Participants in the CDS market are buying and selling default insurance at a negotiated price. As of December 31, the fair value of these contracts was $\$(7,524,623)$ in 2008 and $\$(889,366)$ in 2007.
As of December 31, 2008 and 2007, the System had investments in the following derivative financial instruments. The contract or notional amounts do not represent the exposure to market loss.

| Description | 2008 |  | 2007 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Contracts | Contract or Notional Value | Contracts | Contract or Notional Value |
| Long fixed income futures | 422 | \$ 211,454,070 | 915 | \$ 687,591,672 |
| Short fixed income futures | 244 | $(45,502,016)$ | 165 | $(34,691,250)$ |
| Interest rate swaps | 3 | 5,302,000 | 7 | 41,008,000 |
| Interest rate swaps | - | - | 2 | $(6,688,000)$ |
| Index swap | - | - | 2 | 9,400,000 |
| Credit default swaps-buyer | 6 | $(2,370,000)$ | 24 | (6,280,000) |
| Credit default swaps-seller | 35 | 28,104,965 | 32 | 24,710,000 |
| Long put options | - | - | 36 | $(36,000,000)$ |
| Short put options | 291 | 95,266,375 | 335 | 133,829,203 |
| Short call options | 109 | $(53,048,000)$ | 192 | $(139,690,047)$ |
| Swaption | - | - | 5 | 6,600,000 |

## SECURITIES LENDING COLLATERAL AND OBLIGATIONS

The System participates in a securities lending program in accordance with the provisions of a contract between the System (lender) and its custodial agent, NTC (agent). The agent loans equity, fixed income, and short-term securities to independent brokers and dealers (borrower). The borrower exchanges collateral, in the form of cash, government securities, or irrevocable letters of credit, for the loaned securities equal to $102 \%$ and $105 \%$ of the market value, plus accrued income, of the borrowed securities. Collateral is marked to market daily with additional collateral required or (returned) when the value of the collateral falls below the minimum or (exceeds) requirements. The System retains all beneficial rights to the loaned securities except for the ability to vote proxies. The agent invests cash collateral in a short-term investment pool or in separate term loans with maturities equal to the terms of the security loans. These loans can be terminated on demand by either lender or borrower. Non-cash collateral cannot be pledged or sold unless the borrower defaults on the loan agreement. A portion of the earnings on the invested collateral is rebated to the borrower in accordance with the agreement between the agent and the borrower. The System receives revenue from the loaned securities, less the borrower rebate and loan fees or premiums and the agent lending fees. The lending fees are currently $24 \%$ of the gross revenue. The agent will indemnify the System for losses the System may incur if the agent is unable to recover borrowed securities and distributions as a result of borrower defaults if the agent is in non-compliance with the lending agreement and applicable law. The System had no credit risk exposure at December 31, 2008 or 2007 because the amount the System owed the borrowers exceeded the amount the borrowers owed the System.

There were no losses as a result of borrower or lending agent default as of December 31, 2008 and 2007.
As of December 31, 2008, the value of loaned securities was $\$ 121,846,259$ ( $\$ 193,098,540$ in 2007). The value of the associated collateral was $\$ 123,453,383$ ( $\$ 198,060,616$ in 2007). Income from securities lending, net of borrower rebates and lending fees, was $\$ 1,288,822$ for the year ended December 31, 2008 ( $\$ 539,084$ in 2007).

The following table reflects the balances, relating to securities lending transactions as of December 31, 2008.

| Securities Lent for Cash Collateral | Underlying Securities | Securities Value | Cash Collateral |  |
| :--- | ---: | :---: | ---: | ---: |
| Domestic stock | $\$ 103,948,977$ | $\$$ | - | $\$ 105,152,868$ |
| Fixed income | $17,874,415$ |  | - | $18,276,266$ |
| International stock | 22,867 | $\$$ | - | 24,249 |
|  | $\$ 121,846,259$ |  | $123,453,383$ |  |
| Securities Lent for |  |  |  |  |
| Non-Cash Collateral <br> International stock | $\mathbf{8 1 2 2 , 6 8 1 , 2 7 1}$ | 835,012 |  |  |
| Total | $\mathbf{\$ 8 3 5 , 0 1 2}$ | $\mathbf{\$ 1 2 3 , 4 5 3 , 3 8 3}$ |  |  |

On September 18, 2008, the agent declared a collateral deficiency in the cash collateral pool when the net asset value of the cash collateral pool fell below $\$ 1$ per unit. The agent accrued a receivable due from the System in the amount of $\$ 3,189,175$, representing the System's proportionate share of the deficiency in the cash collateral pool at the date the agent declared the deficiency. Following the accrual of the receivables from clients to reflect the deficiency, the market-to-book ratio was 1.00 . Any capital distribution from the collateral pool will be determined at the sole discretion of the agent.

On October 2, 2008, the System elected to participate in a staged withdrawal from the current securities lending program with the agent. The value of the System's securities subject to loan (loan balance) is capped and decreases over the period the System participates in the staged withdrawal, at the discretion of the agent. At the completion of the withdrawal process, any payable due the collateral investment pool is due in full. At December 31, 2008, the loan balance cap was $\$ 128,268,518$.

The System received a $\$ 383,663$ support payment from the agent on October 29, 2008, to offset a portion of the System's losses related to the collateral pool deficiency.

## (4) Contributions

Employer contributions are based on the funding policy required by Plan provisions. The provision for the funding policy was amended in 2005, to provide for the phase-in of the employer contribution rate equal to the full ARC over a four-year period. The phase-in dates for the rate adjustments are July 1, 2005, 2006, 2007, and 2008, respectively. On April 24, 2008, the System received $\$ 397,800,000$ from the proceeds of the issuance of the TVRCOP by the School District. The proceeds effectively funded fully the UAAL of the System. Subsequent to the receipt of the proceeds from the TVRCOP, the employer contribution rate was reduced from $14.01 \%$ to $7.58 \%$, effective for the period July 1, 2008, through June 30, 2009. According to the funding policy, beginning July 1, 2009, the employer contribution rate is $13.92 \%$. (See footnote 9, Subsequent Events)

The actuary of the System issues an annual report as of January 1 of each year. The School District adopts changes in the employer contribution rates for its fiscal year beginning 18 months after the date of the annual actuarial valuation report, except as noted above. Members are required to contribute $8 \%$ of gross covered salary to the System. These contributions are recorded in separate member accounts. Member contributions are tax-deferred for federal and state income tax purposes. In accordance with funding policy, the District contributions to the System, exclusive of the TVRCOP proceeds, totaled $\$ 37,011,169$ and $\$ 434,811,169$ including the TVRCOP proceeds ( $\$ 40,572,810$ in 2007). Member contributions totaled $\$ 29,904,361$ and $\$ 28,184,570$ for 2008 and 2007, respectively.

## (5) Funded Status and Funding Progress

The funded status of the System as of December 31, 2008, the most recent actuarial valuation date, is as follows
(in thousands of dollars)

## Unfunded <br> Actuarial

| Actuarial <br> Value of <br> Assets | Actuarial <br> Accrued <br> Liability | Accrued <br> Liability <br> $($ UAAL $)$ | Funded <br> Ratio <br> $(1) /(2)$ | Annual <br> Covered <br> Payroll | Covered <br> Payroll <br> $(3) /(5)$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $(\mathbf{1})$ | $(2)$ | $(3)$ | $(4)$ | $(5)$ | $(\mathbf{5})$ |
| $\$ 2,944,292$ | $\$ 3,493,011$ | $\$ 548,719$ | $84.3 \%$ | $\$ 388,652$ | $141.2 \%$ |

## ACTUARIAL ASSUMPTIONS AND METHODS

The funded status of the System is based upon actuarial assumptions applied to the benefit provisions of the substantive Plan, member data, and the value of reported amounts and the probability of occurrence of events in the future. Actual experience of the System will not coincide exactly with assumed experience. Each valuation provides a complete recalculation of assumed future experience, taking into account all past differences between assumed and actual experience. The projection of benefits for financial reporting purposes does not explicitly incorporate the potential effects of legal or contractual funding limitations, if applicable.
A schedule of funding progress immediately follows the notes to the financial statements in Required Supplementary Information and presents multiyear trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative the actuarial accrued liability for benefits.

The following schedule provides information regarding significant actuarial assumptions and methods as of the latest actuarial valuation date.

| Valuation date | January 1, 2009 |
| :---: | :---: |
| Actuarial cost method | Individual entry age |
| Amortization method. | Level percentage of increasing payroll |
| Amortization approach. | Open |
| Remaining amortization period | 30 years at each valuation date |
| Asset valuation method | Smoothing 25\% of difference between actual and assumed investment returns |
| Actuarial assumptions: |  |
| Investment rate of return | 8.50\% |
| Including inflation at | 4.50\% |
| Projected salary increases | Varies based upon service and age from $4.5 \%$ to $8.0 \%$ |
| Including inflation at | 4.50\% |
| Cost-of-living adjustments: |  |
| Hired prior to 7/1/05 | $3.25 \%$ compounded annually |
| Hired on or after 7/1/05 | Lesser of 3\% or CPI-W compounded annually |

## (6) Future Benefit Enhancements

Created in 1991, the Reserve for Future Benefit Enhancements (FBE) serves as an account within the System Retirement Trust Fund (SRTF) designated to provide for the payment of future improvements in plan benefits. This account is funded annually in accordance with prescribed guidelines set forth in the Plan. The balance in the FBE is a component of net assets held in trust for pension benefits but excluded from the computation of the actuarial accrued liability of the System. The balance in the FBE at December 31, 2008 and 2007 was $\$ 0$.

## (7) Commitments

The System leases office space under an operating lease that expires June 30, 2011. Future minimum lease payments listed in the table below are as of December 31 of each year. Rent expense for the years ended December 31, 2008 and 2007 was $\$ 188,169$ and $\$ 180,245$, respectively.

| Year | Amount |
| :--- | ---: |
| 2009 | $\$ 168,964$ |
| 2010 | 173,862 |
| 2011 | 88,155 |
| Total | $\mathbf{\$ 4 3 0 , 9 8 1}$ |

As of December 31, 2008, the System had commitments for future investments in alternate assets and real estate of \$154,997,996 ( $\$ 155,846,095$ in 2007).

## (8) Administrative Expenses

Expenses for the administration of the plan, including the System, are budgeted and approved by the Board. Plan assets, including investment income, are used to pay plan expenses.


## (9) Subsequent Events

## A: MERGER INTO COLORADO PERA

On April 9, 2009, the DPSRS Board of Trustees unanimously approved the following motion in support of SB 09-282: "I move that the Denver Public Schools Retirement System adopt a position of support for Senate Bill 09-282. However, the Board of Trustees has concerns regarding the proposed decrease in funded ratio of the proposed Denver Public Schools Division of PERA. We hold forth optimism for increases in the funded ratios of the PERA and Denver Public Schools' divisions."

Senate Bill 09-282, was introduced in the Colorado Legislature on April 6, 2009. This bill mandates the merger and transfer of the assets of the System into Colorado PERA as a separate DPS Division within Colorado PERA, effective January 1, 2010. The Governor of Colorado signed the bill on May 21, 2009. The bill incorporates certain provisions of the Plan into statute and requires the Colorado PERA Board to administer the provisions of the Plan for System members. It allows for the portability of benefits between the DPS Division and other divisions within Colorado PERA. A non-voting ex officio member is appointed to the Colorado PERA Board from the DPS Division. In addition, a separate health care trust fund is created for the DPS Division and allows DPS retirees to participate in PERACare, the Colorado PERA health care program for retirees and benefit recipients. See section $B$ of this footnote for further discussion on current and future employer contribution rates.

The Colorado Legislature has required that Colorado PERA conduct a comprehensive study of measures intended to continue the financial and actuarial sustainability of each of the retirement divisions within Colorado PERA. The DPS Division, which will commence on the date of the merger, will be included in the study. The study may indicate that benefit reductions and/or contribution increases may be required to maintain the sustainability of all divisions within Colorado PERA.

## B: EMPLOYER CONTRIBUTION RATE

In accordance with Section 60 of the Plan, the Board of Trustees sent a recommendation to the Board of Education to approve an employer contribution rate of $13.92 \%$, effective July 1, 2009. If necessary, the Plan permits the Board of Education to adjust the employer contribution rate after receiving recommendations from the Board of Trustees. The Board of Education did not accept the recommendation from the Board of Trustees.

On June 18, 2009, the Board of Education passed Resolution 3164 and established the employer contribution rate at $15.53 \%$ for the period beginning July 1, 2009, through December 31, 2009. This employer rate is offset by the District's payments on the outstanding PCOPs, at an assumed interest rate of $8.5 \%$. The resulting net contribution to the plan is $0.49 \%$, using data provided by the staff of DPS. The Board of Education believes as stated in Resolution 3164, based on information reasonably available, it is actuarially sound to establish the employer contribution rate at $0.49 \%$.

The Board of Trustees and the management of the System strongly disagree with the assertion that the net contribution rate of $0.49 \%$ is actuarially sound. For a system with unfunded liabilities, a contribution rate less than the actuarial normal
cost and including no provision for amortization of the unfunded actuarial accrued liability does not meet the generally accepted standards of maintaining an actuarially sound system. Based on information presented to the Board of Trustees and the management of the System, the assertion by the Board of Education is inaccurate and the Board of Trustees is unaware of any information supporting the position of the Board of Education.

Subsequent to the merger with Colorado PERA, the Colorado Legislature will determine the employer and employee contribution rates. The statutory employer contribution rate for the DPS Division currently is set at $13.75 \%$ from 2010 through 2012 and $14.15 \%$ thereafter ( $12.73 \%$ and $13.13 \%$ respectively, without consideration of the required $1.02 \%$ to be contributed to the DPS Health Care Trust Fund) and the employee contribution rate currently is set at $8 \%$. DPS Division employers are also subject to the Amortization Equalization Disbursement (AED) and the Supplemental Amortization Equalization Disbursement (SAED), as outlined in statute. The DPS Division required contributions are to be reduced by an amount equal to the School District obligations related to the PCOP issued in 1997 and the TVRCOP issued in 2008, at an assumed interest rate of $8.5 \%$. The resulting employer contribution rate for DPS Division employers in 2010 is expected to be $1.80 \%$. Future net employer contribution rates for the DPS Division are expected to gradually increase as a percentage of pay over time but will not equal the projected future normal cost until approximately 2016. As stated in the Board of Trustees motion in support of the merger legislation, the Board and the management of the system believe this schedule of employer contributions will lead to a substantial decline in the funded status and soundness of the DPS Division.

## O Required Supplementary Information

The required supplementary schedules provide information to help users assess the ability of the System to accumulate sufficient assets to pay benefits when due. The information includes funding status, funding progress and contribution rates and requirements. The Schedule of Funding Progress reports the unfunded actuarial accrued liability of the System and its significance relative to the capacity to pay for the liability. The Schedule of Employer Contributions provides information about the required contributions and the extent to which the employer makes those contributions.

## SCHEDULE OF FUNDING PROGRESS (UNAUDITED)

(Dollars in Thousands)


## SCHEDULE OF EMPLOYER CONTRIBUTIONS (UNAUDITED)

| Year Ended | Annual <br> Required <br> Contribution | Employer <br> Contributions | Percentage <br> of ARC <br> Contributed | Annual <br> Required <br> Contribution <br> Percentage** |
| :--- | :---: | :---: | :---: | :---: |
| 2003 | $\$ 28,709,754$ | $\$ 13,023,157$ | $45.36 \%$ | $8.67 \%$ |
| 2004 | $34,637,301$ | $21,142,815$ | 61.04 | 10.74 |
| 2005 | $42,308,047$ | $28,448,702$ | 67.24 | 13.10 |
| 2006 | $45,974,858$ | $33,684,185$ | 73.27 | 14.01 |
| $2007^{*}$ | $48,967,382$ | $40,572,810$ | 82.86 | 14.49 |
| 2008 | $52,341,226$ | $434,811,169$ | 830.72 | 14.26 |

* 2007 reflects actuarial assumptions and methodologies adopted in 2007 and applied retroactively to the beginning of the year.
** The ARC percentage is shown as a blended rate. Employer contribution rates are adjusted effective July 1 of each year.
Unaudited - see accompanying notes to the required supplementary information.
Unaudited - see accompanying independent auditors' report.



## NOTES TO REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)

Significant Factors Affecting Trends in Actuarial Information

## 2008 CHANGES IN PLAN PROVISIONS AND ACTUARIAL ASSUMPTIONS

- On April 24, 2008, School District No. 1 contributed $\$ 397,800,000$ to the System to fund fully the unfunded actuarial accrued liability of the System. This resulted in a reduction of the employer contribution rate to $7.58 \%$ from $14.01 \%$, effective for the period from July 1, 2008 through June 30, 2009. Effective July 1, 2009, the recommended employer contribution rate is 13.92\%. On June 18, 2009, the Board of Education for School District No. 1 adopted an employer contribution rate of $0.49 \%$ for the period from July 1, 2009, through December 31, 2009.
- Effective January 1, 2009, all resigned and terminated members with five or more years of service are considered deferred members and are not required to sign a form of intent to apply for a deferred retirement.
- The commencement date of benefits for deferred retirements was changed to 30 days after application from the first day of the month following eligibility for a deferred retirement.
- All subsidies in the calculation of the benefit payment options are removed effective January 1, 2009.


## 2007 CHANGES IN PLAN PROVISIONS AND ACTUARIAL ASSUMPTIONS

- The employer contribution rate changed in accord with the funding policy of the Plan and the scheduled four-year phase-in to achieve the full annual required contribution rate by July 1, 2008. Effective July 1, 2007, the employer contribution rate is $12.83 \%$.
- Effective January 1, 2007, the actuarial value of assets is re-set to the market value as of December 31, 2006.
- Effective January 1, 2007, the actuarial asset smoothing method changed to recognize $25 \%$ of the difference between actual and assumed investment returns in the funding value of assets. In prior years, the smoothing method used recognized $20 \%$ of the difference between the market and expected values of assets in the funding value of assets.
- Based on an actuarial experience study, salary increase, withdrawal, retirement, disability, and mortality assumptions are changed effective January 1, 2007.


## 2006 CHANGES IN PLAN PROVISIONS AND ACTUARIAL ASSUMPTIONS

- The employer contribution rate changed in accord with the funding policy of the Plan and the scheduled four-year phase-in to achieve the full annual required contribution rate by July 1, 2008. Effective July 1, 2006, the employer contribution rate is $11.14 \%$.


## 2005 CHANGES IN PLAN PROVISIONS AND ACTUARIAL ASSUMPTIONS

- Effective July 1, 2005, the provisions governing the employer contribution requirements were amended to allow for a phase in of the employer contribution rate to achieve the full annual required contribution rate by July 1, 2008.
- Effective January 1, 2005, the economic assumptions for investment returns and wage inflation changed to $8.50 \%$ and $4.50 \%$ from $8.75 \%$ and $4.00 \%$, respectively.
- The actuarial reduction on optional early retirements increased to 6\% from 4\% for individuals who, on or after July 1, 2005, become members or rejoin the System after having withdrawn their contribution balances.
- For individuals who, on or after July 1, 2005, become members or rejoin the System after having withdrawn their contribution balances, the ARAA was changed from $3.25 \%$ compounded to the lesser of $3.00 \%$ or the increase in the Consumer Price Index for urban wage earners and clerical workers for the preceding year compounded. The calculation of the first ARAA, effective in the year immediately following the year of retirement, is calculated in a pro-rated manner based on the number of months retired.


## 2004 CHANGES IN PLAN PROVISIONS AND ACTUARIAL ASSUMPTIONS

- The Option A benefit is enhanced by adding a death benefit that provides the payment to the designated beneficiary or beneficiaries of the remaining amount of an annuitant's account balance at the time of death, effective December 31, 2004.
- Effective December 31, 2004, joint and survivor annuity "pop-up" options P3 and P2 are added. In the event the joint survivor annuitant predeceases or divorces from the annuitant, the benefit amount generally will pop up to the Option A amount.
- The reference to the use of female mortality tables in establishing the option factors for the joint and survivor annuity options is deleted from the Plan, effective December 31, 2004.


## 2003 CHANGES IN PLAN PROVISIONS AND ACTUARIAL ASSUMPTIONS

- As of January 1, 2004, earned service is used both to determine the eligibility for retirement and the amount of the retirement benefit. Prior to this change, active service is used to determine retirement eligibility, and accredited service is used to determine the retirement benefit.
- Effective January 1, 2004, the calculation to determine credit for casual service changed from one based on hours of employment to a calculation based on the compensation of the member. One month of service credit is credited for each month the member's earnings equals or exceeds 80 times the hourly federal minimum wage in effect at the time of service.
- Effective January 1, 2004, the cost to purchase non-covered employment increased from $25 \%$ to $34 \%$ of HAS at the time of purchase.


## O Additional Supporting Schedules

## SCHEDULES OF ADMINISTRATIVE EXPENSES

For the Years Ended December 31, 2008 and 2007

|  | 2008 | 2007 |
| :---: | :---: | :---: |
| Personnel services |  |  |
| Salaries | \$ 1,695,928 | \$ 1,568,294 |
| Employee benefits | 486,168 | 540,365 |
| Total personnel services | 2,182,096 | 2,108,659 |
| Professional services |  |  |
| Legal fees | 144,387 | 72,487 |
| Actuarial fees | 104,550 | 156,992 |
| Audit fees | 70,150 | 59,000 |
| Consultants and outside services | 169,914 | 183,023 |
| Maintenance agreements | 123,007 | 101,469 |
| Total professional services | 612,008 | 572,971 |
| Miscellaneous expenses |  |  |
| Insurance | 153,655 | 161,782 |
| Subscriptions and research materials | 9,564 | 9,187 |
| Investment services | 36,000 | 36,000 |
| Computer system software | 865 | 10,029 |
| Computer supplies | 10,195 | 26,078 |
| Registrations, conferences and memberships | 23,819 | 21,342 |
| Planning and meeting | 6,085 | 9,745 |
| Telephone | 16,384 | 14,295 |
| Travel | 25,883 | 33,441 |
| Office rent | 188,169 | 180,245 |
| Office supplies | 13,171 | 17,366 |
| Advertising | 4,325 | 2,797 |
| Postage and printing | 84,676 | 101,118 |
| Equipment repair | 2,446 | 2,815 |
| Depreciation | 105,458 | 104,857 |
| Lobbying expense | 21,500 | - |
| Other | 231 | 206 |
| Total miscellaneous expenses | 702,426 | 731,303 |
| Total administrative expenses | \$ 3,496,530 | \$ 3,412,933 |

See accompanying independent auditors' report.

## SCHEDULES OF INVESTMENT EXPENSES

For the Years Ended December 31, 2008 and 2007

|  | Fees |  |
| :--- | ---: | :---: |
| Description | $\mathbf{2 0 0 8}$ | $\mathbf{2 0 0 7}$ |
| Domestic equity | $\$ 4,242,222$ | $\$ 4,512,776$ |
| International equity | $2,993,934$ | $3,777,810$ |
| Domestic fixed income | $1,000,341$ | $1,308,673$ |
| Mortgage, real estate and other investments | $4,577,243$ | $1,915,381$ |
| Total external manager fees | $\mathbf{1 2 , 8 1 3 , 7 4 0}$ | $\mathbf{1 1 , 5 1 4 , 6 4 0}$ |
| Custody fees | $\mathbf{4 3 , 5 0 0}$ | $\mathbf{4 3 , 5 0 0}$ |
| Total investment expense | $\mathbf{\$ 1 2 , 8 5 7 , 2 4 0}$ | $\mathbf{\$ 1 1 , 5 5 8 , 1 4 0}$ |

## SCHEDULES OF PAYMENTS TO CONSULTANTS

For the Years Ended December 31, 2008 and 2007

|  | Fees |  |
| :--- | ---: | ---: |
| Nature of Service | $\mathbf{2 0 0 8}$ | $\mathbf{2 0 0 7}$ |
| Legal | $\$ 144,387$ | 72,487 |
| Actuarial | 104,550 | 156,992 |
| Management consulting | 205,914 | 219,023 |
| Audit | 70,150 | 59,000 |
| Information systems | 123,007 | 101,469 |
| Total payments to consultants | $\mathbf{\$ 6 4 8 , 0 0 8}$ | $\mathbf{\$ 6 0 8 , 9 7 1}$ |

See accompanying independent auditors' report.

## INVESTMENT

$\square$


O Investment Management

By Amy C. McGarrity, Chief Investment Officer

## ECONOMIC OVERVIEW

2008 began with modest concern surrounding the domestic economy, and a general belief that international economies were increasingly independent, and therefore "decoupled" from the U.S. economy. However, as the year continued, the severity of the U.S. economic downturn became more apparent, and it became clear that the rest of the world would not be immune from problems similar to those experienced in the U.S. Developed and emerging economies alike experienced downturns as the decoupling theory proved incorrect and global de-leveraging and credit contraction impacted domestic economies around the world.

The National Bureau of Economic Research officially declared that the U.S. recession began in December 2007. Real gross domestic product (GDP) during the fourth quarter of 2008 decreased at an annual rate of $6.3 \%$, the largest decrease since 1982. For the year, real GDP increased $1.1 \%$ over 2007 levels. Global growth for 2009 is expected to be positive, led by developing countries' economies which have higher expected growth rates relative to developed countries.

In the U.S., the credit contraction that began in 2007 increased in severity throughout 2008. Banks continued to write-down significant amounts of assets on their balance sheets, and as a result, generally decreased their lending activity, which rippled through the economy as companies and consumers were required to reduce their leverage. The downturn in the residential housing market continued through the year, putting even more pressure on U.S. consumers, generally leading to declines in overall household wealth.

The Reuters/University of Michigan Index of Consumer Sentiment, a consumer confidence index published monthly by the University of Michigan and considered to be a leading economic indicator, ended the year at 60.1 compared to 75.5 at the end of 2007 and 96.9 in January 2007.
During the year, the U.S. Federal Reserve lowered the federal funds rate, the rate banks charge each other for overnight loans at the Federal Reserve, to $0 \%-0.25 \%$, down from $4.25 \%$ at the end of 2007. By targeting a lower federal funds rate, the Federal Reserve attempts to ease monetary policy and encourage lending, which is expected to flow through to stimulate economic growth. In addition to monetary policy actions, the U.S. government attempted to reignite the economy through fiscal stimulus and massive government spending. Despite the numerous independent and coordinated responses to the downturn, credit continued to tighten throughout the year, as banks' balance sheets came under increasing pressure due to de- leveraging and asset price declines.
As global demand slowed during 2008, oil and other commodities experienced extreme price volatility; in July oil hit a high of nearly $\$ 150$ per barrel, yet during the fourth quarter was down to $\$ 40$ per barrel. In the middle of 2008, the concern was inflation, as the annual Consumer Price Index (CPI), including food and energy, came in at $5.5 \%$ at the end of June. However by the end of the year, deflation was more of a concern, and CPI came in at a $0.1 \%$ annual rate. Unemployment in the U.S. stood at $7.2 \%$ at the end of 2008 , up from $4.9 \%$ at the end of 2007.

The U.S. dollar strengthened versus most major currencies during the year, as strong demand outweighed economic uncertainty in the U.S. The dollar gained over $4 \%$ versus the Euro and over 26\% versus the British pound. The strong dollar impacts U.S. exports, as they are more expensive abroad when the dollar is strong. One standout currency relative to the dollar was the Japanese Yen, which gained in excess of $23 \%$ relative to the dollar, as the yen "carry trade" was unwound during the year. Because the Japanese government has kept local interest rates low, global investors borrowed in Japan and invested in assets and currencies of other countries. When central banks in the U.S. and European Union lowered rates, investors reversed that trade, thus pushing the yen higher.

## MARKET OVERVIEW

2008 was a year that will not be soon forgotten for most investors. Throughout the year, many events had a significant impact on markets worldwide. In the U.S., the year began with continued precipitous declines in some U.S. residential housing prices and the bursting of the subprime mortgage bubble. It continued with the emergency takeover of Bear Stearns by JPMorgan, the failure of IndyMac bank, the bankruptcy of Lehman Brothers, the freezing of the credit markets, the "breaking of the buck" by a major money market fund, the government rescue of AIG, and the government backstop of major financial (and non-financial) institutions. The credit market "freeze" had far-reaching implications; major investment banks transformed, either ceasing operations completely, or converting to more-regulated commercial banks. Derivatives, specifically credit-default swaps (CDS) and collateralized debt obligations (CDOs), were blamed for the downfall of
many large financial institutions, as the ability to "make-good" on privately negotiated contracts was called into question and counterparty risk became a large concern.

Throughout the year, there was really no place to hide; the near meltdown of the U.S. financial system had far-reaching, global ramifications, as no economy or asset class seemed immune. In response to the global economic downturn, markets around the world, and in various asset classes, were negative in 2008. In the case of U.S. equities, small capitalization stocks fared better than larger cap stocks. During the year large caps, as measured by the Russell 1000 index, lost $37.6 \%$, while small caps, as measured by the Russell 2000 index, lost $33.8 \%$. The decline was broad-based within the large cap segment, with growth stocks losing $38.4 \%$ and value losing $36.9 \%$. In small caps, value outperformed growth, with a $-28.9 \%$ return versus $-38.5 \%$ for growth.
International equities fared even worse during 2008, losing $43.4 \%$ as measured by the MSCI EAFE Net index in U.S. dollar terms. Emerging markets, as measured by the MSCI Emerging Markets Net index lost $53.3 \%$ in U.S. dollar terms. During 2008, the generally strong dollar relative to most currencies detracted from results for U.S.-based investors. The return for the MSCI EAFE Net index in local currency terms was $-40.3 \%$ and the return for the MSCI Emerging Markets Net index in local currency terms was -45.9\%.
While, in general, fixed income markets had better performance during the year than equities, 2008 was not without significant difficulties. The meltdown in the financial sector created a general "freeze" in the credit markets, thereby causing spreads to widen across sectors, with the exception of U.S. Treasury securities, where spreads tightened
significantly. The extreme uncertainty and subsequent widening of spreads caused significant illiquidity across non-Treasury fixed income sectors. Investors were so risk-averse during the year, yields on short-term government securities were pushed to near-zero levels. Performance for the Barclays Capital U.S. Treasury index was very strong, gaining $13.7 \%$, while the Barclays Capital Credit index lost $3.1 \%$. The broader Barclays Capital Aggregate index gained 5.2\% during the year.
Equity real estate, as measured by the NCREIF index, lost 6.5\% in 2008. As the economy slowed and credit became scarce, commercial real estate started to feel the pain during the latter half of 2008. Private equity, in general, also started to experience negative returns at the end of the year, as the impact of slowing global growth, tight credit markets and decreased values in public market comparables began to be reflected in the year-end values.

Given the unprecedented events of 2008, it seems likely that, at least in the near-term, the U.S. government will play a more active role in the economy, through increased regulation and oversight. Certainly the era of "easy credit" seems over for now, and increased regulation and government involvement seems inevitable.

## DPSRS FUND PERFORMANCE (returns presented gross of fees)

 DPSRS was not immune from the financial market turmoil in 2008. Despite DPSRS' diversified portfolio of investments, it lost a significant amount of assets in 2008. For the year ended December 31, 2008, the DPSRS investment portfolio lost 24.3\% (gross of fees). The DPSRS Custom Index benchmark also lost $24.3 \%$ during the same period. Relative to the Callan Associates' Public Fund universe, the DPSRS portfolio was in the 37th percentile of funds, meaning that it outperformed roughly $63 \%$ of this peer group for the year. Relative to the CustomIndex benchmark, the portfolio benefited from an overweight to fixed income.

For the year, the aggregate return on the domestic equity portfolio was $-35.3 \%$ versus $-36.9 \%$ for the custom benchmark ( $50 \%$ S\&P 500/50\% Russell 2500). Generally, the System's managers were able to add value during the year relative to their respective benchmarks. DPSRS' domestic equity portfolio outperformed $90 \%$ of our public fund peers in 2008.

The DPSRS international equity portfolio also outperformed its index and peer group benchmarks. For the year, the DPSRS international equity composite returned $-41.7 \%$ versus $-43.4 \%$ for the MSCI EAFE index and $-43.6 \%$ for the median public fund international equity composite.
The System's fixed income portfolio did not fare as well. For the year, the fixed income portfolio returned $-6.5 \%$ versus $5.2 \%$ for the Barclays Capital Aggregate index and 0.2\% for the median public fund fixed income composite. Holdings in nonagency mortgage-backed securities, certain credits, and an underweight in U.S. Treasuries relative to the index hurt the portfolio's relative and absolute performance. The System's commercial mortgage portfolio lost $8.0 \%$ during the year. This portfolio is mainly comprised of whole-loan mortgages which are typically originated and held to maturity. However, minor holdings in CMBS and CDOs had a negative impact on performance.
For the year, the System's equity real estate portfolio returned $-11.8 \%$ versus $-6.5 \%$ for the NCREIF index. Despite underperformance relative to the index, the DPSRS real estate composite outperformed $56 \%$ of its peers, as measured by Callan's public fund universe. The commercial real estate markets began their downturn in the latter half of 2008 and are expected to suffer into 2009.


The Chief Investment Officer supervises and reviews activities and performance of investment managers, recommends changes in the investment program, and monitors the day-to-day investment activities. The investment managers manage the assets and exercise complete investment discretion in accordance with policy statements and guidelines and specific restrictions stated in their Investment Management Agreements. The managers are responsible for communicating with the Chief Investment Officer regarding all significant matters pertaining to investments of the fund assets.

## ASSET ALLOCATION

The System's asset allocation is approved by the Board of Trustees as part of the Statement of Investment Objectives and Policies. The Statement's asset allocation parameters were last revised March 5, 2007, reflecting the results of an asset/liability modeling study that was conducted late in 2006. The revised asset allocation adopted in 2007 is reflected in this report.
The overall target asset allocation as of December 31, 2008, can be divided into $68 \%$ equity-type investments (domestic, international, real estate equity, and alternative assets) and $32 \%$ fixed income-type investments (fixed income and mortgages). The target allocation ranges for specific asset classes are noted below; however, within the equity-type investment category, there are further constraints so that the total of the equity-type investments does not fall outside of the range of $60 \%$ to $76 \%$ of total investments.

## ASSET ALLOCATION TARGETS AND RANGES AS OF DECEMBER 31, 2008

| Asset Class | Low | Target | High |
| :--- | :---: | :---: | :---: |
| Total Domestic Equities | $29 \%$ | $34 \%$ | $39 \%$ |
| Large Capitalization Equities | 12 | 17 | 22 |
| Small/Mid Capitalization Equities | 12 | 17 | 22 |
| International Equities | 13 | 18 | 23 |
| Alternative Assets | 2 | 7 | 12 |
| Equity Real Estate | 6 | 9 | 12 |
| Fixed Income | 24 | 32 | 40 |
| Fixed Income Securities | 16 | 19 | 22 |
| Commercial Real Estate Mortgages | 8 | 13 | 18 |

## INVESTMENT GUIDELINES

## Equity Investments

The portion of assets invested in publicly traded equity securities is diversified between domestic and international, by company capitalization, and by manager style. A portion of the domestic equity portfolio is managed passively (indexed), and a portion is actively managed.
The asset allocation provides for approximately $17 \%$ in large capitalization domestic issues, $17 \%$ in small/mid capitalization domestic issues, and $18 \%$ in international issues. As a general practice, equity holdings in a single company should not exceed $5 \%$ of a manager's portfolio at cost or $8 \%$ at market value. Also, as a general practice, holdings in any single industry sector should not exceed $40 \%$ of the total related portfolio, i.e., large capitalization domestic, small/mid capitalization domestic, and international portfolio. In certain instances, these guidelines can be altered depending on a particular manager's style and expertise, if stated in the Investment Management Agreement.

## Fixed Income Investments

The fixed income asset class includes a broad array of debt securities, including U.S. Government and agency securities, corporate notes and bonds, short-term money market securities, such as certificates of deposit and commercial paper, mortgage and other asset-backed securities and securities issued by non-U.S. governments and corporations. The Board of Trustees recognizes that there are periods during economic and capital market cycles where utilization of debt securities and derivative securities of various sectors, currencies, and structures is appropriate in a well-diversified portfolio in order to manage risk and to provide the potential for above average long-term investment returns.
Except for U.S. Government and agency guaranteed securities, concentrations in the securities of a single entity are limited to not more than $5 \%$ of the fixed income securities at market value. Concentrations in the corporate securities of a single industry are limited to not more than $25 \%$ of fixed income securities at market value.

Deviations from the standard guidelines must be stated and approved in the Investment Management Agreement.

## Commercial Real Estate Mortgage Investments

This asset class can include all mortgage investments (except residential mortgage-backed securities) such as mortgages on income-producing properties, mortgage pools, interests in commingled funds or co-investment vehicles which invest in mortgages, investment management separate accounts, Commercial Mortgage-Backed Securities, and interest in participating and convertible mortgages where it is intended to be primarily a debt rather than an equity investment.

In order to protect the overall performance and preservation of fund assets, mortgages that are secured by a single property are generally limited in size to not more than $5 \%$ of the total mortgage portfolio, with a possible increase up to $7 \%$, depending on the terms of the mortgage. Due to the broad diversification characteristics represented by mortgage pools and commingled mortgage funds, the $5 \%$ limitation does not apply to the System's participation in such investment vehicles.

## Equity Real Estate Investments

Investments in this asset class can include any of the following: direct ownership of real estate properties, ownership in commingled funds that invest primarily in equity real estate, interests in hybrid debt instruments where the investment is deemed to be more of an equity rather than a fixed income investment, investment management separate account, investments in real estate joint ventures, partnerships or similar vehicles or investments in Real Estate Investment Trusts.
Real estate assets are diversified geographically by property type and by property size. The System will, as a general practice, not own more than a $20 \%$ interest in any one commingled fund, nor will an initial investment in any one individual property be more than $10 \%$ of the total equity real estate portfolio.

## Alternative Assets

Alternative Assets is considered a distinct asset class in the DPSRS Statement of Investment Objectives and Policies and generally is defined as assets that are not publicly traded, lack liquidity, and are not subject to financial market regulations. For the purposes of DPSRS investment policy, the alternative assets asset class is divided into two separate categories: private equity and other
alternative investments. Currently, all DPSRS investments in this asset class are in the private equity category. The investment activities of private equity firms encompass every aspect of the lifecycle of a business enterprise, ranging from start-ups to mature companies. The two largest sub-segments within private equity are venture capital and buyouts, which are distinguished from each other primarily by the size of the investment, risk associated with the company's cash flows, and the role of debt in the transaction.

Unlike traditional asset classes, the difference between top and bottom quartile performance in many alternative investments is vast. Hence, a premium is placed on manager selection and diversification. Emphasis is placed on broad exposure to various economic sectors, geographical locations, development stages, transaction types, and managers. The System, as a general practice, will not own more than a $10 \%$ interest in any single alternative asset investment.

## INVESTMENT MANAGEMENT OBJECTIVES

The Statement of Investment Objectives and Policies provides for performance objectives for the total fund as well as for individual managers. As presented in the table below, the performance of the total fund is evaluated relative to inflation, an appropriate universe of other pension funds, and a Custom Index. Individual external investment managers are evaluated relative to an appropriate universe and a relevant index. The Investment Committee meets quarterly to review the actual performance of the total fund, each asset class, and each investment manager. Performance evaluations are performed quarterly by Callan Associates, Inc., the System's investment consulting firm, and are distributed to the Board of Trustees.

|  | Total Fund |  | Equity Specialist Managers | Fixed Income Specialist Managers |
| :---: | :---: | :---: | :---: | :---: |
| Relative to inflation | CPI $+5.25 \%$ annually |  | N/A | N/A |
| Relative to an institutional universe Relative to an index | Top 50\% |  | Top 40\% | Top 40\% |
|  | Exceed a Custom Index weighted as follows: S\&P 500 | 17\% | Large Cap: Exceed appropriate Russell 1000 Index | Exceed Barclays Capital Aggregate Index |
|  | Russell 2500 | $24 \%{ }^{1}$ | Small/Mid Cap: Exceed appropriate Russell 2500 Index |  |
|  | Barclays Capital Aggregate | 19\% |  |  |
|  | Barclays Capital Intermediate Credit A | 13\% | Real Estate Equity: Match NCREIF Property Index |  |
|  | NCREIF Property | 9\% |  |  |
|  | MSCI EAFE | 18\% | International: Exceed EAFE Index |  |

${ }^{1}$ Includes 7\% allocation to Alternative Assets

The objective of investment in commercial mortgages is to maintain a portfolio of high quality commercial mortgage investments that provide an alternative to other fixed income investments. With the mix of mortgage investments being so varied, there is no nationally recognized published index that would approximate the mix of investments in the mortgage portfolio. However, it is expected that the mortgage investment portfolio should produce returns that exceed the Barclays Capital Intermediate Credit A Index over a three-to-five-year period.

Investments in equity real estate are structured to create a diversified real estate portfolio of high quality property assets to provide a hedge against inflation, diversify the fund's asset base and stabilize overall fund investment performance. Total return shall include income as well as appreciation or depreciation. It also is expected that the total return of the total equity real estate portfolio will at least match the total return of the NCREIF Property Index over a seven-to-ten-year time horizon.

Allocations to alternative assets typically serve one of two purposes: help enhance portfolio returns through higherrisk investment strategies or help diversify portfolios
through investments that generate returns with very low correlation to traditional asset classes. Currently, all investments in the alternative assets asset class consist of private equity investments. The goal of private equity investing is to generate substantially greater returns than the long-term returns from the public equity markets, thereby enhancing overall portfolio returns. However, achieving such performance comes at a price: greater levels of risk and very little liquidity. Moreover, measuring and evaluating the performance of private equity investments is more complicated than for traditional asset classes for a variety of reasons. First, the illiquid nature of private equity investments makes it difficult to ascertain value on an ongoing basis. Not until all of a partnership's assets are liquidated at termination can the real return be calculated. Second, there is a wide variety of styles and strategies utilized by private equity managers, which makes it difficult to construct a reasonable benchmark. Third, private equity deals require a long holding period from investment through liquidation.

## SAFEGUARDING OF ASSETS

Marketable securities owned by the System are held under a custodial arrangement with The Northern Trust Company in Chicago, Illinois. In addition to safekeeping the assets, the custodian is responsible for the timely and accurate settlement of securities transactions as well as the collection and accounting for all income receivable from the investments. Investments that are managed by outside managers using a commingled vehicle are held under similar custodial arrangements.

The System's own internal accounting department verifies and reconciles the activity of the custodian and the investment managers while maintaining financial records according to governmental accounting standards. Annual audit and actuarial examinations also are performed by independent professional firms to provide assurance of the integrity of the System's financial statements and long-term actuarial funding.

## HISTORICAL PERFORMANCE

Presented in the table on the following page are the annual total returns from each asset class for the 2004-2008 period as well as the compounded threeyear and five-year total returns. These results have been prepared by the System's outside investment performance consultant, Callan Associates, Inc., and are time-weighted returns computed in conformance with industry standards. Comparable indexes also are presented below for each asset class.

VARIOUS INDEX RETURNS
Periods Ending December 31, 2008

|  | 1 Year | 3 Years | 5 Years | 10 Years |
| :---: | :---: | :---: | :---: | :---: |
| U.S. Fixed Income: |  |  |  |  |
| Barclays Capital Aggregate Bond Index | 5.2 | 5.5 | 4.7 | 5.6 |
| Barclays Capital Credit Index | -3.1 | 2.0 | 2.7 | 4.9 |
| Barclays Capital Treasury Index | 13.7 | 8.5 | 6.4 | 6.3 |
| U.S. Equity: |  |  |  |  |
| S\&P 500 Index | -37.0 | -8.3 | -2.2 | -1.4 |
| NASDAQ Composite Index | -40.5 | -10.6 | -4.7 | -3.2 |
| Russell 1000 Index | -37.6 | -8.7 | -2.0 | -1.1 |
| Russell 1000 Growth Index | -38.4 | -9.1 | -3.4 | -4.3 |
| Russell 1000 Value Index | -36.9 | -8.3 | -0.8 | 1.4 |
| Russell 2000 Index | -33.8 | -8.3 | -0.9 | 3.0 |
| Russell 2000 Growth Index | -38.5 | -9.3 | -2.4 | -0.8 |
| Russell 2000 Value Index | -28.9 | -7.5 | 0.3 | 6.1 |
| International Equity: |  |  |  |  |
| MSCI EAFE Index (\$Net) | -43.4 | -7.4 | 1.7 | 0.8 |
| MSCI Emerging Markets Index (\$Net) | -53.3 | -4.9 | 7.7 | 9.0 |
| MSCI Europe Index (\$Net) | -46.4 | -6.6 | 1.5 | 0.4 |
| MSCI Japan Index (\$Net) | -29.2 | -10.4 | 0.9 | 0.5 |
| MSCI United Kingdom Index (\$Net) | -48.3 | -9.9 | -1.3 | -1.1 |

## Source: Wilshire Compass

Note: Periods longer than one year are annualized; data in $\$$ terms.

## O Total Returns

Returns other than Alternative Asset Investments and a portion of fixed income are presented gross of fees and are time-weighted based on industry standard computation methods.

|  | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ | $\mathbf{2 0 0 7}$ | $\mathbf{2 0 0 8}$ | 3-Year | 5-Year |
| :--- | :---: | ---: | :---: | ---: | :---: | ---: | :---: | :---: |
| Total DPSRS Fund | $\mathbf{1 2 . 7 1 \%}$ | $\mathbf{1 0 . 6 4 \%}$ | $\mathbf{1 2 . 6 1 \%}$ | $\mathbf{1 0 . 0 7 \%}$ | $\mathbf{- 2 4 . 3 1 \%}$ | $\mathbf{- 2 . 1 0} \%$ | $\mathbf{3 . 1 9 \%}$ |
| Total Fund Custom Index ${ }^{1}$ | 12.13 | 7.79 | 13.54 | 6.77 | -24.31 | -2.83 | 2.09 |
| DPSRS Domestic Stock | $\mathbf{1 4 . 8 0}$ | $\mathbf{7 . 6 3}$ | $\mathbf{1 1 . 6 3}$ | 7.40 | $\mathbf{- 3 5 . 2 6}$ | $\mathbf{- 8 . 1 0}$ | $\mathbf{- 0 . 8 3}$ |
| Custom Benchmark $^{2}$ | 14.58 | 6.51 | 16.09 | 3.46 | -36.85 | -8.80 | -1.53 |
| DPSRS International Stock | $\mathbf{1 9 . 9 6}$ | $\mathbf{1 5 . 3 4}$ | $\mathbf{2 2 . 6 2}$ | $\mathbf{1 7 . 0 9}$ | $\mathbf{- 4 1 . 6 7}$ | $-\mathbf{5 . 7 2}$ | $\mathbf{3 . 0 0}$ |
| MSCI EAFE Index | 20.24 | 13.54 | 26.34 | 11.17 | -43.38 | -7.35 | 1.66 |
| DPSRS Fixed Income | $\mathbf{6 . 1 6}$ | $\mathbf{3 . 3 3}$ | 5.79 | $\mathbf{4 . 2 3}$ | $-\mathbf{6 . 4 9}$ | $\mathbf{1 . 0 6}$ | $\mathbf{2 . 5 2}$ |
| Barclays Aggregate Index | 4.34 | 2.43 | 4.33 | 6.97 | 5.24 | 5.51 | 4.65 |
| DPSRS Mortgages | $\mathbf{8 . 0 9}$ | $\mathbf{8 . 0 8}$ | $\mathbf{6 . 6 0}$ | $\mathbf{5 . 4 1}$ | $-\mathbf{8 . 0 0}$ | $\mathbf{1 . 1 8}$ | $\mathbf{3 . 8 9}$ |
| Barclays Intermediate Credit A | 4.01 | 1.88 | 4.44 | 5.06 | -4.85 | 1.45 | 2.04 |
| DPSRS Real Estate | $\mathbf{1 1 . 9 2}$ | $\mathbf{2 6 . 9 8}$ | $\mathbf{1 6 . 4 2}$ | $\mathbf{1 6 . 2 3}$ | $\mathbf{- 1 1 . 7 5}$ | $\mathbf{6 . 0 9}$ | $\mathbf{1 1 . 1 6}$ |
| NCREIF Property Index | 14.52 | 20.06 | 16.59 | 15.85 | -6.46 | 8.11 | 11.67 |
| DPSRS Alternatives | $\mathbf{6 . 7 7}$ | $\mathbf{3 5 . 3 3}$ | $\mathbf{1 9 . 4 8}$ | $\mathbf{4 0 . 5 9}$ | $\mathbf{- 1 1 . 5 1}$ | $\mathbf{1 4 . 1 3}$ | $\mathbf{1 6 . 5 2}$ |
| Russell 2500 | 18.29 | 8.11 | 16.17 | 1.38 | -36.79 | -9.37 | -0.98 |
| DPSRS Short-term Investments | $\mathbf{1 . 4 3}$ | $\mathbf{3 . 2 9}$ | 5.15 | $\mathbf{5 . 4 1}$ | $\mathbf{2 . 5 4}$ | $\mathbf{4 . 3 5}$ | $\mathbf{3 . 5 5}$ |
| 3-Month Treasury Bills | 1.33 | 3.07 | 4.85 | 5.00 | 2.06 | 3.96 | 3.25 |

${ }^{1}$ The current custom index presented for the total fund represents a blend, as follows:

```
19% Barclays Aggregate Index 24% Russell }2500\mathrm{ Index
18% MSCI EAFE Index 9% NCREIF Property Index
17% Sঞ̛P 500 Index 13% Barclays Intermediate Credit A
```

${ }^{2}$ The benchmark returns presented for domestic stock represent a blend, as follows:
50\% SerP 500
50\% Russell 2500

## Schedule of Fees and Commissions

For the Year Ended December 31, 2008

|  | Assets under management | Fees |  | Commissions |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Shares | Amount | Per Share |
| Investment manager fees |  |  |  |  |  |  |
| Fixed income managers | \$ 685,174,571 |  | \$ 1,000,341 | - | \$ | \$ - |
| Equity managers | 1,120,149,653 |  | 7,236,156 | 44,114,984 | 1,273,149 | 0.03 |
| Other investments | 732,017,185 |  | 4,577,243 | - | - | - |
| Total investment manager fees | \$ 2,537,341,409 |  | \$ 12,813,740 | 44,114,984 | \$ 1,273,149 | \$ 0.03 |
| Other investment service fees |  |  |  |  |  |  |
| Custodian fees |  |  | \$ 43,500 | - | \$ | \$ |
| Securities lending fees |  |  | 4,142,610 | - | - | - |
| Commission recapture income |  |  | - | - | $(176,577)$ | - |
| $\underline{\text { Total investment service fees }}$ |  |  | \$ 16,999,850 | 44,114,984 | \$ 1,096,572 | \$ 0.02 |

## O List of Largest Assets Held

December 31, 2008

## LARGEST STOCK HOLDINGS

|  | Stock | Shares | Fair Value |
| ---: | :--- | ---: | :---: |
| 1 | Qualcomm | 363,182 | $\$ 13,012,811$ |
| 2 | Amphenol | 529,416 | $12,695,396$ |
| 3 | Berkshire Hathaway Class B | 3,787 | $12,171,418$ |
| 4 | Lockheed Martin | 136,897 | $11,510,300$ |
| 5 | General Dynamics | 179,649 | $10,345,986$ |
| 6 | Wal-Mart Stores | 180,285 | $10,106,777$ |
| 7 | Wells Fargo | 301,362 | $8,884,152$ |
| 8 | IBM | 86,794 | $7,304,583$ |
| 9 | Genzyme | 87,400 | $5,800,738$ |
| 10 | C H Robinson Worldwide | 104,805 | $5,767,419$ |

## LARGEST BOND HOLDINGS

|  | Description | Par | Coupon | Maturity | Rating | Fair Value |
| ---: | :--- | ---: | :---: | :---: | :---: | :---: |
| 1 | FNMA Single Family | $\$ 51,400,000$ | $5.000 \%$ | $01 / 01 / 39$ | AAA | $\$ 52,476,213$ |
| 2 | FHLMC Pool G0-3696 | $9,492,304$ | 5.500 | $01 / 01 / 38$ | AAA | $9,726,517$ |
| 3 | FNMA 15 Yr Pass-Through | $7,800,000$ | 5.500 | $01 / 01 / 24$ | AAA | $8,031,566$ |
| 4 | GNMA Pool 662397 | $6,427,893$ | 6.000 | $05 / 15 / 37$ | AAA | $6,643,806$ |
| 5 | US Treasury Inflation Indexed | $3,440,000$ | 3.625 | $04 / 15 / 28$ | AAA | $5,489,333$ |
| 6 | FHLMC Pool G0-3695 | $5,165,917$ | 5.500 | $11 / 01 / 37$ | AAA | $5,293,670$ |
| 7 | FHLMC Pool G0-4222 | $3,340,694$ | 5.500 | $04 / 01 / 38$ | AAA | $3,423,123$ |
| 8 | CMO BSSR 2007-R11 A1 | $3,491,354$ | 1.071 | $09 / 27 / 37$ | AAA | $3,395,280$ |
| 9 | FNMA Pool 889802 | $2,809,104$ | 5.000 | $07 / 01 / 37$ | AAA | $2,871,999$ |
| 10 | FHLMC Pool 1G-0578 | $2,712,402$ | 5.029 | $09 / 01 / 35$ | AAA | $2,724,038$ |

A complete list of portfolio holdings is available upon request.

## O Investment Summary

| Type of investment | December 31, 2008 |  |  |  |  |  | \% Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Financial Assets |  | Adjustment |  | Allocation Assets |  |  |  |
|  |  |  | Actual | Target |  |  |  |  |
| Cash | \$ | 104,606,089 |  |  | \$ | $(47,446,955)$ | \$ | 57,159,134 | $2 \%$ | 0\% |
| Fixed income: |  |  |  |  |  |  |  |  |
| Corporate securities |  | 406,714,719 |  |  |  | 406,714,719 |  |  |
| Government securities |  | 173,853,763 |  | $(37,299,787)$ |  | 136,553,976 |  |  |
| Total fixed income |  | 580,568,482 |  | $(37,299,787)$ |  | 543,268,695 | 22 | 19 |
| Mortgage investments |  | 333,999,035 |  |  |  | 333,999,035 | 14 | 13 |
| Domestic stocks |  | 738,170,024 |  | 21,144,261 |  | 759,314,285 | 31 | 34 |
| International stocks |  | 381,979,629 |  |  |  | 381,979,629 | 15 | 18 |
| Equity real estate |  | 235,343,004 |  |  |  | 235,343,004 | 10 | 9 |
| Alternative assets |  | 148,571,212 |  |  |  | 148,571,212 | 6 | 7 |
| Investments and cash |  | 2,523,237,475 |  | $(63,602,481)$ |  | 2,459,634,994 | 100\% | 100\% |
| Net unsettled trades |  |  |  |  |  | 63,602,481 |  |  |
| Total investments and cash |  | 2,523,237,475 |  |  |  | 2,523,237,475 |  |  |

In measuring the progress in reaching target asset allocation goals, investment assets are classified differently from the classification for financial reporting purposes. Investment manager performance is measured on the total account value, including cash retained by the manager and excluding debt placed on investment assets. In addition, the cash due or payable on unsettled transactions is reflected as an asset or liability for financial reporting purposes, but it is considered settled in determining the value of the managed account.

DIVERSIFICATION OF ASSETS AT DECEMBER 31, 2008


## ACTUARIAL

# O Actuarial Certification Letter GRS <br> Gabriel Rocder Smith \& Company <br> Consultants \& Actuaries 

| One Towne Square | 248.799 .9000 phone |
| :--- | :--- |
| Suite 800 | 248.799 .9020 fax |
| Southfield, MI 48076-3723 | www.gabrielroedercom |

June 8, 2009

Board of Trustees
Denver Public Schools Retirement System
3700 East Alameda Ave., Suite 400
Denver, CO 80209-3172
Dear Board Members:
The basic funding objective of the Denver Public Schools Retirement System (DPSRS) is to establish and receive contributions which, when expressed in terms of a percentage of active member payroll, will remain approximately level from generation to generation, and when combined with present assets and future investment return will be sufficient to meet the financial obligations of DPSRS to present and future retirees and beneficiaries.

The annual actuarial valuation process develops contribution rates that are sufficient to fund the current cost (i.e., the costs assigned by the valuation method to the year of service about to be rendered), as well as to fund unfunded actuarial accrued liabilities as a level percent of active member payroll. The most recent annual valuation was completed based upon census data, asset data, and plan provisions as of December 31, 2008. The valuation is performed in accordance with standards of practice prescribed by the Actuarial Standards Board.

The signing actuaries are Members of the American Academy of Actuaries (M.A.A.A.), as indicated and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

The System's administrative staff provides the actuary with data for the actuarial valuations. The actuary relies on the census data after reviewing it for internal and year-to-year consistency. Asset information was accepted without further audit. Assets are valued on a marketrelated basis that recognizes the difference between actual and assumed investment return over an open five-year period.

Schedules in the Financial Section prepared by the actuary were:

- Schedule of funding progress
- Schedule of employer contributions

Schedules in the Actuarial Section prepared by the actuary were:

- Percent of members separating before retirement
- Percent of eligible members retiring next year
- Individual pay increase assumptions
- Schedule of contributing, affiliate and deferred member valuation data
- Schedule of retirees and beneficiaries added to and removed from benefit payroll
- Solvency test
- Analysis of financial experience

Schedules in the Statistical Section prepared by the actuary were:

- Schedule of average benefit payments
- Schedule of retired members by type of benefit

The assumptions and methods used are internally consistent and comply with the requirements of Statement No. 25 of the Governmental Accounting Standards Board (GASB). The valuation assumptions were based on a study of DPSRS experience covering the 2004-2006 period.

The annual required contribution (ARC) under GASB 25 is equal to $15.30 \%$ of compensation for the 2010-2011 fiscal year. The DPSRS was $84.3 \%$ funded as of December 31, 2008 based on the DPSRS market related value of assets.

Respectfully submitted,


Kenneth G. Alberts


Norman L. Jones, F.S.A., M.A.A.A.

# O Summary of Principal Plan Provisions and Organization 

## BACKGROUND

The System was established by the Board of Education of School District No. 1 on December 1, 1945, to provide defined retirement, death and disability benefits to participating employees. The organization and amendments of the Plan have been carried out in accordance with the provisions of Colorado law. The System Retirement Trust Fund is designated as a trust fund established to accomplish the objectives set forth in the Plan.

The responsibility for the general administration, investment of assets, and proper operation of the System is vested in an 11-member board of managers known as the Board of Trustees.

The daily administration of the retirement plan is the responsibility of the Executive Director of the System who is appointed by the Board of Trustees. The retirement organization consists of four major departments. The Retirement Administration Department has the responsibility for administrative operations, including contribution, service and salary maintenance, retirement estimate preparation and finalization, and administration of the retirement payroll. The Accounting Department generally is responsible for the processing of the retirement payroll and all financial accounting and reporting for the retirement plan. The Chief Investment Officer is the custodian of the funds held on behalf of the System and directs the activities of the third division, the Investment Department. All of the departments are provided with data processing support by the Information Systems Department.

## CONTRIBUTIONS AND MEMBERSHIP

Contributing members receive benefits based upon years of earned service and their highest average salaries. Prior to retirement, members are required to contribute $8 \%$ of regular compensation. Contributions currently accumulate interest monthly at the effective annual rate of $5 \%$, which may be changed prospectively by action of the Board of Education. The contributions and the interest are returned to the member's beneficiary or to the member upon his or her death or termination of employment prior to retirement, respectively. In the event of the member's death prior to retirement, his or her beneficiary may elect to have survivor benefits paid to the eligible survivors in lieu of the return of the member's contributions with interest.

Affiliate members are part-time or temporary employees of the District who have applied and been accepted for affiliate membership. Generally, continuously-employed employees contribute $6 \%$ of compensation paid prior to July 1, 1998, and 8\% of compensation paid on or after July 1, 1998. Affiliate members receive a benefit determined in the same manner as provided for contributing members, except that career average salary is substituted for highest average salary in computing such benefit. Upon termination of affiliate membership or death prior to retirement, all of the member's contributions, together with interest, are returned to the member or in the event of the member's death, to his or her beneficiary.

Disability retirement may be granted to either classification of membership in case of disability prior to eligibility for normal retirement. The amount of such benefits depends upon the type of membership and earned service.

Optional forms of retirement allowance, which provide a continuance or a lump-sum death benefit to a member's beneficiary, are available to all members upon retirement.

## SERVICE RETIREMENT BENEFITS

## I. ELIGIBILITY

A. Regular Retirement

1. Attained age 55 with 25 or more years of earned and outside service of which 10 may be outside service
2. Attained age 65 with 5 or more years of earned service
3. Attained age 50 with 30 or more years of earned service
B. Optional Early Retirement
4. Attained age 55 with 15 or more years of earned service
5. Attained age younger than 55 with 25 or more years of earned service
II. BENEFITS
(Pension and Annuity)
A. Regular Retirement Single Life Annuity
2.5\% of Highest Average

Salary is given for every year of earned service. Highest Average Salary is the average monthly compensation of the 36 months of earned service having the highest rates multiplied by twelve.
B. Optional Early Retirement Single Life Annuity

Generally, the same provisions exist as for regular retirement with a $4 \%$ reduction in allowance applied for each year a member lacks eligibility for regular retirement if such person became a contributing or affiliate member prior to July 1, 2005, and his or her contribution balance remains with the retirement system until retirement. Proration on a monthly basis is applied for partial years. A 6\% reduction is applied for a person who, on or after July 1, 2005, becomes a member or rejoins the retirement system after having withdrawn his or her contribution balance.
C. Minimum Benefits

A minimum pension portion of the benefit equal to $\$ 15$ per year for each of the first 10 years of earned service and $\$ 20$ per year thereafter is guaranteed by the provisions of the Plan.

## DEFERRED

RETIREMENT BENEFITS
I. ELIGIBILITY - Five or more years of earned service
II. BENEFITS
(Pension and Annuity)
Determination of benefits is the same as for regular retirement. Benefits are payable at attained age 55 with 25 years of earned and outside service, at age 65 with fewer than 25 years of service, and for members who terminate on or after January 1, 2001, at attained age 50 with 30 years of earned service.

Also available at the time a member who resigns on or after January 1, 2001, becomes eligible to draw a deferred benefit is a choice of a refund of $200 \%$ of accumulated contributions, a money purchase retirement benefit based on $200 \%$ of accumulated contributions plus the minimum employer-provided benefit, or the existing defined benefit provided by the Plan.

## "AUTOMATIC" RETIREMENT BENEFITS

In case of the death of any affiliate or contributing member who was eligible for retirement, the Retirement Plan provides for an automatic retirement as of the day after the date of death.

## DISABILITY RETIREMENT BENEFITS

I. ELIGIBILITY - Five or more years of earned service with the District

## II. BENEFITS

(Pension and Annuity)
Determination of benefits is the same as for regular retirees who retire under the provisions of a "Single Life Annuity." Recalculation occurs at age 55 if earned and outside service at the time of disability is 25 years or more or at age 50 if earned service at the time of disability is 30 years or more. Otherwise, recalculation occurs at age 65 .

## RETIREMENT OPTIONS AS OF DECEMBER 31, 2008

## Option A

Option A is a single life annuity defined as a specified sum of money payable monthly to an annuitant from the time of retirement until death. If, at the annuitant's death, retirement benefits received is less than the total amount of accumulated contributions at the time of retirement, the balance is paid to the designated beneficiary(ies) in a lump sum.

## Option B

Option B is an installment refund annuity defined as a smaller sum of money than the amount payable under Option A but which is the actuarial equivalent thereof, payable monthly to an annuitant from the time of retirement until death. Additionally, if the annuitant dies before receiving an amount equal to the total of the reserve, the payments continue to the designated beneficiary(ies) or estate until the total amount paid equals to the total amount of reserve allocated to the annuitant's retirement allowance.

## Option C

Option C is a joint-survivorship annuity defined as a smaller sum of money than the amount payable under Option A but which is the actuarial equivalent thereof, payable monthly to an annuitant from the time of retirement until death and thereafter to the designated coannuitant for his or her life. If the designated co-annuitant is someone other than the member's spouse and is more than 10 years younger than the member, the amount that continues to the co-annuitant at the member's death will be reduced, if appropriate, in accordance with defined percentages required by the Internal Revenue Code and Regulations. The designation of the co-annuitant is effective upon the member's date of retirement and subsequently may not be changed.

In addition to designating a coannuitant, the member designates a contingent beneficiary(ies) and has the right to change designation of contingent beneficiary(ies) at any time prior to the member's death. If upon the death of both the annuitant and the designated co-annuitant, the total number of monthly payments made is less than 120 full months, the remainder necessary to equal 120 full monthly payments is paid in equal shares monthly to the member's contingent beneficiary(ies).

In the event of the deaths of all contingent beneficiaries prior to the deaths of the annuitant or the co-annuitant, the remaining amount due upon the death of both the annuitant and co-annuitant, is commuted and paid in a single lump sum to the estate of the annuitant or the co-annuitant, whoever dies later. In the event any contingent beneficiary survives both the annuitant and co-annuitant and thereafter dies before all payments are made, the remainder of payments due that beneficiary is commuted and paid to his or her estate.

In case of the death of the designated co-annuitant under Option C after the date of application for retirement and before the effective date of retirement, the member may make a change of option or designate a new co-annuitant within 30 days after the death of the previously designated co-annuitant and is subject to the appropriate recalculation of the retirement allowance.

## Option P3

Option P3 is a joint-survivorship option defined as a smaller sum of money than the amount payable under Option A but which is the actuarial equivalent thereof, payable monthly to an annuitant from the time of retirement until death and thereafter to the designated co-annuitant for his or her life. If the designated co-annuitant is someone other than the member's spouse and is more than 10 years younger than the member, the amount that continues to the co-annuitant at the member's death will be reduced, if appropriate, in accordance with defined percentages required by the Internal Revenue Code and Regulations. The designation of the co-annuitant is effective upon the member's date of retirement and subsequently may not be changed.

If the annuitant and co-annuitant should die prior to having received in retirement benefits the total amount of accumulated contributions at the time of retirement, the balance is paid to the designated beneficiary(ies) in a lump sum. If the co-annuitant should pre-decease the annuitant, the benefit will recalculate (or "pop-up") to an Option A benefit amount. If the annuitant should divorce from the co-annuitant, the district courts have jurisdiction to allow the annuitant to remove the prior spouse as the named co-annuitant at which point the benefit will recalculate to an Option A benefit amount.

## Option D

Option D is a reduced single life annuity defined as a smaller sum of money than the amount payable under Option A, the portion thereof attributable to the pension share of retirement allowance being the same as under Option A and the annuity share of the retirement allowance being the actuarial equivalent of such share under Option A. The benefit is payable monthly to an annuitant from the time of retirement until death, with a cash refund to the designated beneficiary(ies) or estate, of any excess of the accumulated contributions of the member at date of retirement over the total amount of the annuity share of the retirement allowance paid to the annuitant up to and including the date of death.


Option E is a joint-survivorship annuity defined as a smaller sum of money than the amount payable under Option A but which is the actuarial equivalent thereof, payable monthly to an annuitant from the time of retirement until death. Thereafter, an amount equal to one-half of the monthly amount paid to the annuitant is payable monthly to the designated co-annuitant for his or her life. The designation of the co-annuitant is effective upon the member's date of retirement and subsequently may not be changed.
In addition to designating a coannuitant, the member designates a contingent beneficiary(ies) and has the right to change designation of contingent beneficiary(ies) at any time prior to the member's death. If upon the death of both the annuitant and the designated co-annuitant, the total number of monthly payments made is less than 120 full months, the remainder necessary to equal 120 full monthly payments is paid in equal shares monthly to the member's contingent beneficiary(ies), using the same amount payable to the designated co-annuitant.

In the event of the deaths of all contingent beneficiaries prior to the deaths of the annuitant or the coannuitant, the remaining amount due upon the death of both the annuitant and co-annuitant, is commuted and paid in a single lump sum to the estate of the annuitant or the co-annuitant, whoever dies later. In the event any contingent beneficiary survives both the annuitant and co-annuitant and thereafter dies before all payments are made, the remainder of payments due that beneficiary is commuted and paid to his or her estate.

In case of the death of the designated co-annuitant under Option E after the date of application for retirement and before the effective date of retirement, the member may make a change of option or designate a new co-annuitant within 30 days after the death of the previously designated co-annuitant and is subject to the appropriate recalculation of the retirement allowance.

## Option P2

Option P2 is a joint-survivorship annuity defined as a smaller sum of money than the amount payable under Option A but which is the actuarial equivalent thereof, payable monthly to an annuitant from the time of retirement until death. Thereafter, an amount equal to one-half of the monthly amount paid to the annuitant is payable monthly to the designated co-annuitant for his or her life. The designation of the co-annuitant is effective upon the member's date of retirement and subsequently may not be changed.

If the annuitant and co-annuitant should die prior to having received in retirement benefits the total amount of accumulated contributions at the time of retirement, the balance is paid to the designated beneficiary(ies) in a lump sum. If the co-annuitant should pre-decease the annuitant, the benefit will recalculate (or "pop-up") to an Option A benefit amount. If the annuitant should divorce from the co-annuitant, the district courts have jurisdiction to allow the annuitant to remove the prior spouse as the named co-annuitant at which point the benefit will recalculate to an Option A benefit amount.

- Retirement benefits are subject to the limits set forth in the United States Internal Revenue Code.
- This summary generally describes the basic benefits available under the Plan as it existed December 31, 2008, and shall in no way be taken as the basis of, or creating, any contractual rights between the District or the System and any person or employee.


## SURVIVOR BENEFITS

(The deceased member was an active, contributing member or a contributing member retired for disability who died prior to eligibility for benefit recalculation.)
I. ELIGIBILITY - Five or more years of continuous earned service with the District

## II. BENEFITS

## SURVIVOR

1. Child/Children
L
2. Spouse with eligible child/children (fewer than 15 years of member earned service)
3. Spouse with eligible child/children (at least 15 years of member earned service but fewer than 25 years of service)
4. Spouse with eligible child/children ( 25 years of member earned service or more)
5. Dependent Parent
6. Spouse (fewer than 15 years of member earned service, payable at age 60)
7. Spouse (at least 15 years, but fewer than 25 years of member earned service, payable at age 50)
8. Spouse (at least 25 years of member earned service, payable at age 50)
\% of Highest Average Salary for each child up to a limit of $30 \%$ or $\$ 160$ for each child up to a limit of $\$ 480$, whichever is greater.

## MONTHLY BENEFIT

The difference between (1) above and $30 \%$ of Highest Average Salary or $\$ 480$, whichever is greater
The difference between (1) above and $40 \%$ of Highest Average Salary, or $\$ 480$, whichever is greater

The difference between (1) above and $40 \%$ of Highest Average Salary plus an additional 2\% for each year of service beyond 25 years, or $\$ 480$, whichever is greater
10\% of Highest Average Salary for each parent or $\$ 240$ for each parent, whichever is greater
$30 \%$ of Highest Average Salary or $\$ 480$, whichever is less

30\% of Highest Average Salary plus an additional $1 \%$ for each year of service beyond 15 years, or $\$ 480$, whichever is greater
$40 \%$ of Highest Average Salary plus an additional $1 \%$ for each year of service beyond 25 years, or $\$ 480$, whichever is greater

Unmarried children are eligible for survivor benefits to age 18. Unmarried children enrolled in an accredited school full time are eligible until age 23 . Disabled children of any age who are unmarried and were financially dependent upon the member are eligible. Spouse/children's benefits are payable as long as there is an eligible child.

## ANNUAL RETIREMENT ALLOWANCE ADJUSTMENT (ARAA)

Effective on January 1 of each year, for persons who became contributing or affiliate members prior to July 1, 2005, and whose contribution balances remain with the retirement system until retirement, an increase in retirement or survivor benefits becomes payable based on $3.25 \%$ of the previous year's retirement or survivor benefit.

For persons who, on or after July 1, 2005, become contributing or affiliate members or rejoin the retirement system after having withdrawn their contribution balances, the increase in retirement or survivor benefits is equal to the lesser of $3.00 \%$ or the increase in the Consumer Price Index for urban wage earners and clerical workers for the preceding year, compounded. The effective date for the ARAA is March 1 of each year following the year of retirement. The first ARAA effective in the year immediately following the year of retirement is calculated in a pro-rated manner based on the number of months retired.

## O Summary of Actuarial Assumptions and Methods

## ASSUMPTIONS AS OF JANUARY 1, 2009

a. The investment return used in the valuation is $8.50 \%$ per annum, compounded annually (net after expenses), and was adopted in 2004.
b. The post-retirement mortality tables used in evaluating the liabilities of service retirement and disability benefits to be paid under the Plan are based on the 20042006 DPSRS Experience Study. These assumptions were adopted in 2007, retroactive to the beginning of the year.
c. The probabilities of pre-retirement death, disability, superannuation, and nonvested withdrawal are based on the Plan's experience. Probabilities for sample ages are shown below and were adopted in 2007, retroactive to the beginning of the year.
d. Individual salaries are assumed to increase by merit and longevity plus $4.50 \%$ for inflation per year. These increases are shown for sample ages below. Active membership is assumed to remain constant. These assumptions were adopted in 2007, retroactive to the beginning of the year.
e. The actuarial value of assets was set equal to the market value as of December 31, 2006, prospectively phasing into a four-year smoothing method that increases the actuarial value by the assumed investment return plus $25 \%$ of the difference between the expected and the actual market value investment income.
f. The retirement Plan's liabilities are funded on the Entry Age Normal Actuarial Cost method. Actuarial liabilities or surpluses are amortized over 30 years as a level percentage of increasing payroll subsequent to each annual valuation.

For the DPS fiscal year beginning July 1, 2008, the employer contribution rate was decreased to $7.58 \%$ from $14.01 \%$ as a result of the issuance of Pension Certificates of Participation and full funding of the unfunded actuarial accrued liability.
g. Annual benefits are assumed to increase $3.25 \%$ of the previous year's retirement benefit, 3.00\% if the individual became a member on or after July 1, 2005.
h. The assumptions and methods are specified by the System upon recommendation of the actuary, a qualified member of the American Academy of Actuaries and ratification by the Board of Education. The information for the schedules in this section is provided by the actuary.
i. Assumptions and methods used for funding purposes meet the parameters set for the disclosures presented in the financial section by GASB Statement No. 25.
j. A study of the Plan's experience took place in 2007 reflecting experience from January 1, 2004 through December 31, 2006. As a result of the study, the recommended changes in actuarial assumptions and methods were adopted in 2007, retroactive to the beginning of the year.
k. The results of the December 31, 2008 actuarial valuation assume an employer contribution rate for the six-month period beginning July1, 2009 equal to the recommended employer contribution rate of $13.92 \%$ of payroll as prescribed by the funding policy under Section 60 of the Plan document.

PERCENT OF MEMBERS SEPARATING BEFORE RETIREMENT
For Reasons Other Than Death or Disability
Due to Death or Disability

| Ages | Service | Male | Female |
| :--- | :---: | :--- | :--- |
| All | 0 | $23.00 \%$ | $23.00 \%$ |
|  | 1 | 20.00 | 20.00 |
|  | 2 | 16.00 | 16.00 |
|  | 3 | 14.00 | 14.00 |
|  | 4 | 12.00 | 12.00 |
| 25 | 5 \& over | 7.36 | 9.89 |
| 30 |  | 6.09 | 8.85 |
| 35 |  | 5.12 | 7.36 |
| 40 |  | 4.43 | 5.82 |
| 45 |  | 3.91 | 3.93 |
| 50 |  | 3.39 | 2.76 |
| 55 |  | 3.11 | 2.53 |
| 60 |  | 2.88 | 2.53 |
| 65 |  | 2.30 | 2.53 |


| Sample | Death |  | Disability |  |
| :---: | :--- | :--- | :--- | :--- |
| Ages | Male | Female | Male | Female |
| 20 | $0.01 \%$ | $0.01 \%$ | $0.00 \%$ | $0.00 \%$ |
| 25 | 0.01 | 0.01 | 0.06 | 0.05 |
| 30 | 0.02 | 0.01 | 0.06 | 0.05 |
| 35 | 0.02 | 0.02 | 0.07 | 0.06 |
| 40 | 0.04 | 0.03 | 0.10 | 0.09 |
| 45 | 0.09 | 0.05 | 0.17 | 0.15 |
| 50 | 0.19 | 0.09 | 0.31 | 0.28 |
| 55 | 0.27 | 0.13 | 0.56 | 0.50 |
| 60 | 0.34 | 0.19 | 1.19 | 1.07 |
| 65 | 0.53 | 0.34 | 0.00 | 0.00 |

## PERCENT OF ELIGIBLE MEMBERS RETIRING NEXT YEAR

Retirement Eligible for Reduced Benefits Eligible for Unreduced Benefits

| Age | Male | Female | Male | Female |
| :--- | :--- | :---: | :---: | :---: |
| 50 | $10.00 \%$ | $5.00 \%$ | $30.00 \%$ | $30.00 \%$ |
| 51 | 10.00 | 5.00 | 30.00 | 30.00 |
| 52 | 10.00 | 6.00 | 30.00 | 30.00 |
| 53 | 10.00 | 7.00 | 30.00 | 30.00 |
| 54 | 10.00 | 8.00 | 35.00 | 35.00 |
| 55 | 10.00 | 8.00 | 35.00 | 35.00 |
| 56 | 10.00 | 9.00 | 35.00 | 25.00 |
| 57 | 10.00 | 10.00 | 35.00 | 25.00 |
| 58 | 11.00 | 10.00 | 30.00 | 25.00 |
| 59 | 12.00 | 10.00 | 30.00 | 25.00 |
| 60 | 13.00 | 11.00 | 30.00 | 20.00 |
| 61 | 14.00 | 12.00 | 35.00 | 20.00 |
| 62 | 15.00 | 13.00 | 40.00 | 30.00 |
| 63 | 15.00 | 14.00 | 35.00 | 20.00 |
| 64 | 15.00 | 15.00 | 35.00 | 30.00 |
| 65 |  |  | 35.00 | 35.00 |
| 66 |  |  | 30.00 | 30.00 |
| 67 |  |  | 25.00 | 25.00 |
| 68 |  |  | 25.00 | 25.00 |
| 69 |  |  | 100.00 | 25.00 |
| 70 |  |  |  | 100.00 |

INDIVIDUAL PAY INCREASE ASSUMPTIONS

| Sample <br> Age | Merit and <br> Longevity | Base (Wage <br> Inflation) | Increase <br> Next Year |
| :--- | :---: | :---: | :---: |
| 20 | $3.50 \%$ | $4.50 \%$ | $8.00 \%$ |
| 25 | 3.50 | 4.50 | 8.00 |
| 30 | 3.20 | 4.50 | 7.70 |
| 35 | 2.80 | 4.50 | 7.30 |
| 40 | 2.10 | 4.50 | 6.60 |
| 45 | 1.30 | 4.50 | 5.80 |
| 50 | 0.80 | 4.50 | 5.30 |
| 55 | 0.40 | 4.50 | 4.90 |
| 60 | 0.20 | 4.50 | 4.70 |
| 65 | 0.00 | 4.50 | 4.50 |

## O Summary of Member Data

## ACTIVE MEMBERS



# Active Member 

Years of Service
Total Number of
Contributing Members: 7,540
Average Years of Service: 9.4


Active
Member Ages
Average Contributing
Member Age: 44.2 Years


Active
Member Salaries
Average Contributing Member Salary: \$51,545

SCHEDULE OF CONTRIBUTING, AFFILIATE AND DEFERRED MEMBER VALUATION DATA

| Calendar <br> Year <br> Ending | Number of <br> Contributing <br> Members | Payroll at <br> Valuation <br> Date | Average <br> Annual <br> Salary | \% Increase <br> in Average <br> Salary | Number of <br> Affiliate <br> Members | Number of <br> Deferred <br> Members |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| 2003 | 7,311 | $\$ 318,122,000$ | $\$ 43,513$ | $0.92 \%$ | 28 | 219 |
| 2004 | 7,192 | $315,157,000$ | 43,820 | 0.71 | 31 | 276 |
| 2005 | 7,179 | $318,405,000$ | 44,352 | 1.21 | 33 | 344 |
| 2006 | 7,102 | $328,608,500$ | 46,270 | 4.32 | 28 | 408 |
| 2007 | 7,282 | $357,049,000$ | 49,032 | 5.97 | 21 | 451 |
| 2008 | 7,540 | $388,652,000$ | 51,545 | 5.13 | 20 | 489 |

## SCHEDULE OF RETIREES AND BENEFICIARIES

|  | Added to Payroll |  |  | Removed from Payroll |  |  | Payroll at End of Year |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | | Average |
| :---: | | And Increase |
| :---: |

## RETIRED MEMBERS




## Average <br> Years Since <br> Retirement: 12.8* <br> * Includes regular and optional early retivements only.

Total recipients: 4,978


Average Retiree Age: 72.0*

* Includes regular and optional early retirements only.
Total recipients: 4,978
Continued
SUMMARY OF MEMBER DATA
MEMBER AND EMPLOYER CONTRIBUTION RATES
(1) The employee contribution rate increased to 8\% on 7/1/98 for all active members.
(2) The rate was $2.68 \%$ from 1/1/996/30/99 and $2.90 \%$ from 7/1/9912/31/99.
(3) The funding policy was amended so that changes in the required employer rate become effective on the July 1 that is 18 months after the end of the calendar year on which the actuarial valuation is based.
${ }^{(4)}$ The rate was $2.90 \%$ from 1/1/036/30/03 and $4.98 \%$ from 7/1/0312/31/03.
(5) The rate was $4.98 \%$ from 1/1/046/30/04 and 8.12\% from 7/1/0412/31/04.
(6) The funding policy was amended to allow for a phase in of the employer contribution rate to achieve the full annual required contribution rate by July 1, 2008. The rate was $8.12 \%$ from 1/1/05-6/30/05 and 9.48\% from 7/1/05-12/31/05.
(7) The rate was $9.48 \%$ from 1/1/066/30/06 and 11.14\% from 7/1/0612/31/06.
${ }^{(8)}$ The rate was $11.14 \%$ from 1/1/076/30/07 and $12.83 \%$ from 7/1/0712/31/07.
(9) The funding policy was amended to consider the $\$ 397.8$ million contribution by the District to pay off the unfunded accrued liability lowering the employer contribution from $14.01 \%$ of pay to the normal cost rate of $7.58 \%$ of pay for the fiscal year beginning July 1, 2008.

The rate was $12.83 \%$ from 1/1/08-6/30/08 and 7.58\% from 7/1/08-12/31/08.

## O Funding

## SOLVENCY TEST

The solvency test is used to test a system's funding progress. In this test, the actuarial valuation assets are compared to the total actuarial accrued liabilities relative to:

1. active member contributions on deposit
2. liabilities for future benefits to present retirees and beneficiaries
3. liabilities for service already rendered by active members

If the contributions to the System are level in concept and soundly contributed, and if the System continues in its present operational pattern for the indefinite future, the System will pay all promised benefits when due.

## Dollars are expressed in thousands

## Aggregate Accrued Liabilities for

|  | (1) | (2) | (3) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (1) | (2) | (3) |  |  |  |  |
| Valuation | Active <br> Member | Retirees <br> and | Employer- <br> Financed | Valuation |  | Liabi d by A |  |
| Date | Contributions | Beneficiaries | Portion | Assets | (1) | (2) | (3) |
| 1/1/2004 | \$ 229,828 | \$ 1,841,065 | \$ 722,895 | \$ 2,531,746 | 100\% | 100\% | 64\% |
| 1/1/2005 | 226,554 | 2,029,799 | 704,637 | 2,611,524 | 100 | 100 | 50 |
| 1/1/2006 | 233,032 | 2,132,638 | 700,185 | 2,693,686 | 100 | 100 | 47 |
| 1/1/2007* | 240,040 | 2,255,016 | 738,657 | 2,854,304 | 100 | 100 | 49 |
| 1/1/2008 | 247,305 | 2,363,997 | 771,956 | 2,968,794 | 100 | 100 | 46 |
| 1/1/2009 | 263,618 | 2,422,883 | 806,510 | 2,944,292 | 100 | 100 | 32 |

* Reflects actuarial assumptions and methodologies adopted during 2007, applied retroactively, effective January 1, 2007.


## Analysis of Financial Experience

Gains and Losses in Accrued Liabilities
During the Years Ended December 31, 2008 and 2007
Resulting from Differences Between
Assumed Experience and Actual Experience

|  | Gain (or Loss) for the Year |
| :--- | :---: | :---: | :---: |
| Type of Activity |  |
| Age \& Service Retirements. Fewer members retired than |  |
| assumed, causing a gain. | 2007 |

## STATISTICAL

## O Introduction to Statistical Section

The Statistical Section includes several schedules that provide financial trend analysis of the Retirement System's overall financial health as well as employer information pertaining to employer participation and contribution requirements. In addition, this section presents analytical information on membership and retirement benefit data. Unless otherwise indicated, the data exhibits and information in these schedules are derived from DPSRS' internal sources.

## FINANCIAL SCHEDULES

The schedule on the following page titled Changes in Plan Net Assets is presented for the last 10 years, allowing the reader an opportunity to review trends in the revenues and expenses of the System. Benefits and refunds are then broken down by type in the following schedule. A complete history (from inception of the plan in 1945 through 2008) of contributions paid into the System is provided on page 63 , including a breakdown of contribution amounts and the corresponding contribution rates, as a percent of salary, made by employees and employers per year. In addition to this schedule, a bar chart illustrating the employee and employer contributions in millions of dollars made in the last 10 years is shown on page 64. This chart allows the reader a quick assessment of the amount of contributions paid in the recent past.

## EMPLOYER SCHEDULES

Exhibits detailing the various employers associated with the Denver Public Schools Retirement System can be found on page 65. The first exhibit compares 2008 employer membership statistics and rank among employers against the same statistics from 1999. The second exhibit lists the System-covered employers, providing full name and address of each employer.

## MEMBERSHIP SCHEDULES

The remaining exhibits illustrating member data elements are listed and summarized below:

- Average Benefit Payments - This schedule found on page 66 shows the average monthly benefit amounts, average Highest Average Salary and number of active retirees per year broken out by years of Earned Service. This information is as of the point of retirement and was provided by the System's independent actuary, Gabriel, Roeder, Smith \& Company..
- Retired Members by Type of Benefit - This schedule breaks down the number of retirees in the existing population by type of retirement as well as by payment option selected at retirement within brackets depicting level of monthly benefit amount currently in pay status.
- Average Monthly Benefit - This 10 -year schedule breaks down the average monthly benefit by year into the base benefit and the sum of all increments (annual cost of living increases plus any additionally granted increases) earned during retirement. This information is as of the end of the calendar year as averaged over the year.


## O Financial Schedules

CHANGES IN PLAN NET ASSETS Last Ten Fiscal Years

|  | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Additions |  |  |  |  |  |  |  |  |  |  |
| Member contributions | 20,650,486 | \$ 22,869,611 | 25,848,785 | 28,275,170 | 32,665,945 | 25,992,388 | \$ 27,269,492 | \$ 28,098,414 | \$ 28,184,570 | \$ 29,904,361 |
| Employer contributions | 7,140,565 | 8,007,508 | 8,735,015 | 9,473,361 | 13,023,157 | 21,142,815 | 28,448,702 | 33,684,185 | 40,572,810 | 434,811,169 |
| Investment income (net of expense) | 384,749,549 | 185,639,527 | $(140,078,546)$ | $(166,488,447)$ | 449,742,992 | 278,447,116 | 243,270,794 | 321,692,181 | 291,189,684 | (802,529,274) |
| Total additions to plan net assets | 412,540,600 | 216,516,646 | (105,494,746) | (128,739,916) | 495,432,094 | 325,582,319 | 298,988,988 | 383,474,780 | 359,947,064 | (337,813,744) |
| Deductions |  |  |  |  |  |  |  |  |  |  |
| Benefit payments | 110,488,088 | 117,179,246 | 131,749,235 | 143,604,377 | 152,838,651 | 163,473,489 | 176,445,323 | 186,215,600 | 195,632,703 | 204,417,308 |
| Refunds | 3,369,172 | 4,355,309 | 3,974,835 | 3,346,228 | 4,893,891 | 6,154,132 | 7,194,798 | 7,460,137 | 8,234,446 | 7,667,059 |
| Administrative expenses | 1,641,347 | 1,648,464 | 2,075,416 | 2,301,329 | 3,233,847 | 3,568,221 | 3,429,572 | 3,345,367 | 3,412,933 | 3,496,530 |
| Total deductions from plan net assets | 115,498,607 | 123,183,019 | 137,799,486 | 149,251,934 | 160,966,389 | 173,195,842 | 187,069,693 | 197,021,104 | 207,280,082 | 215,580,897 |
| Change in plan net asserts | \$ 297,041,993 | \$ 93,333,627 | \$ (243,294,232) | \$ (277,991,850) | \$ 334,465,705 | \$ 152,386,477 | \$ 111,919,295 | \$ 186,453,676 | \$ 152,666,982 | \$ (553,394,641) |


DEDUCTIONS


[^0]BENEFIT AND REFUND DEDUCTIONS FROM NET ASSETS BY TYPE

| Last Ten Fiscal Years |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1999 |  | 2000 |  | 2001 |  | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
| Type of benefit |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Age and service benefits: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Retirees | \$ | 98,833,347 | \$ | 104,508,402 | \$ | 117,451,007 | \$ | 127,835,046 | \$ 136,082,760 | \$ 145,425,714 | \$ 156,855,526 | \$ 165,224,179 | \$ 173,525,666 | \$ 181,049,049 |
| Beneficiaries |  | 6,559,845 |  | 7,216,526 |  | 8,268,715 |  | 9,291,564 | 10,114,247 | 11,125,383 | 12,327,133 | 13,334,797 | 14,130,097 | 15,180,911 |
| Death in service benefits |  | 1,129,879 |  | 1,161,674 |  | 1,273,183 |  | 1,298,875 | 1,338,715 | 1,339,824 | 1,380,060 | 1,433,303 | 1,422,814 | 1,483,630 |
| Disability benefits: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Retirees |  | 3,744,061 |  | 4,041,610 |  | 4,455,273 |  | 4,740,119 | 4,887,851 | 5,157,222 | 5,377,745 | 5,568,278 | 5,867,997 | 6,022,620 |
| Beneficiaries |  | 220,956 |  | 251,034 |  | 301,057 |  | 438,773 | 415,078 | 425,346 | 504,859 | 655,043 | 686,129 | 681,098 |
| Total benefits |  | 110,488,088 |  | 117,179,246 |  | 131,749,235 |  | 143,604,377 | 152,838,651 | 163,473,489 | 176,445,323 | 186,215,600 | 195,632,703 | 204,417,308 |
| Type of refund |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Separation |  | 3,257,281 |  | 4,274,833 |  | 3,959,655 |  | 3,270,872 | 4,845,097 | 5,921,406 | 7,007,955 | 7,402,934 | 8,224,690 | 7,629,914 |
| Death |  | 111,891 |  | 80,476 |  | 15,180 |  | 75,356 | 48,794 | 232,726 | 186,843 | 57,203 | 9,756 | 37,145 |
| Total refunds | \$ | 3,369,172 | \$ | 4,355,309 | \$ | 3,974,835 | \$ | 3,346,228 | \$ 4,893,891 | \$ 6,154,132 | \$ 7,194,798 | \$ 7,460,137 | \$ 8,234,446 | \$ 7,667,059 |

HISTORY OF CONTRIBUTIONS 1945-2008

| Year | Employee Contribution | \% of <br> Salary | Employer Contribution | \% of <br> Salary | Year | Employee Contribution | \% of Salary | Employer Contribution | \% of <br> Salary |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1945 | \$ 20,970 | 6.00\% | \$ | 0.00\% | 1977 | \$ 6,761,325 | 6.00\% | \$ 10,597,741 | 9.40\% |
| 1946 | 252,306 | 6.00 | 357,572 | 8.50 | 1978 | 7,051,761 | 6.00 | 11,318,077 | 9.63 |
| 1947 | 293,841 | 6.00 | 524,000 | 10.70 | 1979 | 7,322,772 | 6.00 | 12,168,251 | 9.97 |
| 1948 | 419,941 | 6.00 | 738,101 | 10.55 | 1980 | 7,749,670 | 6.00 | 13,600,671 | 10.53 |
| 1949 | 506,202 | 6.00 | 1,168,423 | 13.85 | 1981 | 8,251,053 | 6.00 | 17,120,274 | 12.45 |
| 1950 | 569,934 | 6.00 | 1,257,920 | 13.24 | 1982 | 8,603,848 | 6.00 | 20,774,584 | 14.49 |
| 1951 | 635,309 | 6.00 | 1,436,528 | 13.57 | 1983 | 9,060,315 | 6.00 | 22,989,125 | 15.22 |
| 1952 | 723,415 | 6.00 | 1,582,645 | 13.13 | 1984 | 9,382,871 | 6.00 | 23,451,590 | 14.99 |
| 1953 | 793,869 | 6.00 | 1,709,244 | 12.92 | 1985 | 10,015,452 | 6.00 | 24,775,279 | 14.85 |
| 1954 | 950,743 | 6.00 | 2,290,531 | 14.46 | 1986 | 10,502,019 | 6.00 | 26,565,337 | 15.19 |
| 1955 | 1,068,710 | 6.00 | 2,335,859 | 13.11 | 1987 | 10,722,718 | 6.00 | 27,089,048 | 15.17 |
| 1956 | 1,192,281 | 6.00 | 2,517,771 | 12.67 | 1988 | 11,279,373 | 6.00 | 22,412,768 | 11.93 |
| 1957 | 1,297,257 | 6.00 | 2,638,519 | 12.20 | 1989 | 11,523,630 | 6.00 | 22,386,804 | 11.68 |
| 1958 | 1,405,086 | 6.00 | 2,700,863 | 11.53 | 1990 | 11,484,060 | 6.00 | 22,589,146 | 11.80 |
| 1959 | 1,512,280 | 6.00 | 2,884,664 | 11.44 | 1991 | 12,155,118 | 6.00 | 23,855,023 | 11.77 |
| 1960 | 1,657,213 | 6.00 | 3,140,426 | 11.37 | 1992 | 12,857,937 | 6.00 | 26,787,862 | 12.50 |
| 1961 | 1,794,234 | 6.00 | 3,389,182 | 11.33 | 1993 | 12,149,351 | 6.00 | 32,690,548 | 16.39 |
| 1962 | 1,942,689 | 6.00 | 3,666,565 | 11.32 | 1994 | 11,943,024 | 6.00 | 32,358,200 | 16.27 |
| 1963 | 2,170,253 | 6.00 | 4,129,051 | 11.42 | 1995 | 12,604,734 | 6.00/7.00 | 33,672,809 | 16.27 |
| 1964 | 2,296,928 | 6.00 | 4,565,531 | 11.93 | 1996 | 13,170,061 | 6.00/7.00 | 34,395,941 | 16.01 |
| 1965 | 2,405,285 | 6.00 | 3,623,247 | 9.04 | $1997{ }^{(1)}$ | 15,305,167 | 6.00/7.00 | 400,307,299 | 10.01 |
| 1966 | 2,542,358 | 6.00 | 3,778,176 | 8.92 | 1998 | 18,555,336 | 6.00/7.00/8.00 | 8,494,670 | 3.47 |
| 1967 | 2,794,250 | 6.00 | 4,101,055 | 8.81 | 1999 | 20,649,845 | 8.00 | 7,140,565 | 2.79 |
| 1968 | 3,037,008 | 6.00 | 4,413,826 | 8.72 | 2000 | 22,869,611 | 8.00 | 8,007,508 | 2.90 |
| 1969 | 3,344,069 | 6.00 | 4,790,185 | 8.59 | 2001 | 25,848,785 | 8.00 | 8,735,015 | 2.90 |
| 1970 | 3,683,017 | 6.00 | 5,184,773 | 8.45 | 2002 | 28,275,170 | 8.00 | 9,473,361 | 2.90 |
| 1971 | 4,249,617 | 6.00 | 6,116,256 | 8.64 | 2003 | 32,665,945 | 8.00 | 13,023,157 | 3.94 |
| 1972 | 4,498,354 | 6.00 | 6,627,970 | 8.84 | 2004 | 25,992,388 | 8.00 | 21,142,815 | 6.55 |
| 1973 | 4,657,945 | 6.00 | 6,992,933 | 9.01 | 2005 | 27,269,492 | 8.00 | 28,448,702 | 8.80 |
| 1974 | 5,051,951 | 6.00 | 7,565,764 | 8.99 | 2006 | 28,098,414 | 8.00 | 33,684,185 | 10.31 |
| 1975 | 5,787,021 | 6.00 | 8,699,367 | 9.02 | 2007 | 28,184,570 | 8.00 | 40,572,810 | 11.99 |
| 1976 | 6,540,784 | 6.00 | 9,806,004 | 9.00 | 2008 ${ }^{(2)}$ | 29,904,361 | 8.00 | 434,811,169 | 10.21 |

(1) In addition to the $\$ 22,540,381$ budgeted employer contribution, the District contributed the proceeds resulting from the issuance of PCOPs in the amount of $\$ 377.8$ million.
(2) In addition to the $\$ 37,011,169$ budgeted employer contribution, the District contributed the proceeds resulting from the issuance of TVRCOPs in the amount of $\$ 397.8$ million.

CONTRIBUTIONS
1999-2008


* In addition to the 2008 budgeted employer contribution of $\$ 37,011,169$ illustrated above, the District contributed the proceeds resulting from the issuance of TVRCOPs in the amount of $\$ 397.8$ million.


## O Employer Schedules

## PRINCIPAL PARTICIPATING EMPLOYERS

Current Year and Nine Years Ago

|  |  |  |  |  | $\mathbf{1 9 9 9}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

## SYSTEM-COVERED EMPLOYERS

As of December 31, 2008

Academy of Urban Learning Charter 835 East 18th Avenue
Denver, CO 80218-1024
Big Picture High School \#1
Skyland Community High School
1619 E 35th Avenue
Denver, CO 80205-4083
Colorado High School Charter
1175 Osage Street \#100
Denver, CO 80204-3443
Community Challenge School 948 Santa Fe Drive
Denver, CO 80204-3937
Denver Arts and Technology Academy 3752 Tennyson Street
Denver, CO 80212-1914
Denver Public Schools
Retirement System
3700 East Alameda Avenue
Suite 400
Denver, CO 80209-3172

Denver Venture School
2409 Arapahoe Street
Denver, CO 80205-2614
Highline Academy
7808 Cherry Creek Drive South
Suite 304
Denver, CO 80231-3222
KIPP Sunshine Peak Academy
375 South Tejon Street
Denver, CO 80223-1961
Life Skills Center of Denver
1000 Cherokee Street
Denver, CO 80204-4039
Northeast Academy
4895 Peoria Street
Denver, CO 80239-2847
Odyssey Charter
8750 East 28th Avenue
Suite C
Denver, CO 80238-2412
Omar D. Blair Edison Charter
4905 Cathay Street
Denver, CO 80249-8376

Pioneer Charter
3230 East 38th Avenue
Denver, CO 80205-3726
School District No. 1
900 Grant Street
Denver, CO 80203-2907
Southwest Early College
3001 South Federal Boulevard
Box 114
Denver, CO 80236-2711
Urban Learning Communities, Inc.
P.S. 1 Charter

1062 Delaware Street
Denver, CO 80204-4033
West Denver Preparatory
1825 South Federal Boulevard
Denver, CO 80219-4905
Wyatt-Edison Charter
3620 Franklin Street
Denver, CO 80205-3325


## Membership Schedules

## AVERAGE BENEFIT PAYMENTS*

| Retirement Effective Dates | Years of Earned Service |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1/1/1999 to 12/31/2008 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30+ |
| 1999 |  |  |  |  |  |  |
| Average Monthly Benefit | \$ 357.56 | \$ 754.60 | \$ 1,286.11 | \$ 1,671.21 | \$ 2,350.92 | \$ 3,202.92 |
| Average Highest Average Salary | \$ 2,275.74 | \$ 2,549.87 | \$ 3,191.19 | \$ 3,178.43 | \$ 3,668.41 | \$ 4,199.02 |
| Number of Active Retirees | 4 | 14 | 22 | 30 | 60 | 79 |
| 2000 |  |  |  |  |  |  |
| Average Monthly Benefit | 462.05 | 860.44 | 1,013.11 | 1,496.16 | 2,459.44 | 3,295.19 |
| Average Highest Average Salary | 2,677.47 | 2,955.91 | 2,486.83 | 2,712.81 | 3,725.52 | 4,254.75 |
| Number of Active Retirees | 6 | 7 | 20 | 16 | 46 | 64 |
| 2001 |  |  |  |  |  |  |
| Average Monthly Benefit | 467.71 | 899.42 | 1,262.10 | 1,905.44 | 2,813.95 | 3,628.69 |
| Average Highest Average Salary | 2,697.14 | 2,877.47 | 2,987.44 | 3,345.98 | 4,032.72 | 4,381.01 |
| Number of Active Retirees | 5 | 20 | 29 | 40 | 117 | 187 |
| 2002 |  |  |  |  |  |  |
| Average Monthly Benefit | 521.62 | 751.59 | 1,637.54 | 2,225.31 | 3,057.29 | 3,832.07 |
| Average Highest Average Salary | 3,128.32 | 2,329.31 | 3,901.55 | 3,900.38 | 4,335.07 | 4,550.10 |
| Number of Active Retirees | 9 | 10 | 30 | 31 | 53 | 95 |
| 2003 |  |  |  |  |  |  |
| Average Monthly Benefit | 466.79 | 1,118.94 | 1,775.46 | 2,577.55 | 2,854.19 | 4,118.90 |
| Average Highest Average Salary | 2,692.13 | 3,492.59 | 3,964.47 | 4,466.57 | 4,060.62 | 4,821.75 |
| Number of Active Retirees | 9 | 19 | 30 | 28 | 62 | 59 |
| 2004 |  |  |  |  |  |  |
| Average Monthly Benefit | 470.83 | 1,365.12 | 1,884.94 | 2,349.34 | 3,176.39 | 4,376.09 |
| Average Highest Average Salary | 2,370.10 | 4,276.25 | 4,295.87 | 4,146.06 | 4,515.08 | 5,203.43 |
| Number of Active Retirees | 6 | 16 | 44 | 28 | 90 | 112 |
| 2005 |  |  |  |  |  |  |
| Average Monthly Benefit | 742.38 | 1,099.06 | 1,994.59 | 2,584.64 | 3,043.00 | 4,179.45 |
| Average Highest Average Salary | 4,306.11 | 3,488.67 | 4,538.31 | 4,641.57 | 4,427.18 | 5,026.23 |
| Number of Active Retirees | 5 | 20 | 44 | 31 | 58 | 60 |
| 2006 |  |  |  |  |  |  |
| Average Monthly Benefit | 622.55 | 1,307.77 | 1,736.78 | 2,776.00 | 3,110.05 | 3,822.49 |
| Average Highest Average Salary | 3,619.14 | 4,122.32 | 4,024.88 | 4,944.41 | 4,498.28 | 4,568.51 |
| Number of Active Retirees | 20 | 18 | 50 | 29 | 48 | 64 |
| 2007 |  |  |  |  |  |  |
| Average Monthly Benefit | 623.75 | 1,066.26 | 1,830.60 | 2,486.38 | 3,293.99 | 4,405.92 |
| Average Highest Average Salary | 4,026.84 | 3,329.78 | 4,210.98 | 4,406.89 | 4,650.91 | 5,218.25 |
| Number of Active Retirees | 20 | 20 | 45 | 45 | 43 | 50 |
| 2008 |  |  |  |  |  |  |
| Average Monthly Benefit | 640.85 | 1,339.70 | 1,798.06 | 2,753.67 | 3,139.46 | 4,449.47 |
| Average Highest Average Salary | 4,012.13 | 4,332.93 | 4,192.83 | 4,871.83 | 4,535.24 | 5,201.96 |
| Number of Active Retirees | 17 | 16 | 31 | 45 | 28 | 29 |

[^1]RETIRED MEMBERS BY TYPE OF BENEFIT
As of December 31, 2008

| Amount of Monthly Benefit | Number of Retired Members | Type of Retirement |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 | 2 | 3 | 4 | 5 | 6 |
| \$ 1-250 | 22 | 17 | 0 | 4 | 1 | 0 | 0 |
| 251-500 | 190 | 103 | 7 | 18 | 27 | 25 | 10 |
| 501-750 | 287 | 142 | 47 | 28 | 24 | 36 | 10 |
| 751-1,000 | 270 | 109 | 55 | 33 | 22 | 45 |  |
| 1,001-1,250 | 312 | 141 | 91 | 37 | 9 | 29 | 5 |
| 1,251-1,500 | 330 | 160 | 85 | 28 | 10 | 44 | 3 |
| 1,501-1,750 | 268 | 139 | 62 | 39 | 5 | 19 | 4 |
| 1,751-2,000 | 320 | 170 | 71 | 38 | 15 | 23 | 3 |
| Over 2,000 | 4,187 | 3,293 | 463 | 313 | 12 | 98 | 8 |
|  | 6,186 | 4,274 | 881 | 538 | 125 | 319 | 49 |
| Deferred | 489 |  |  |  |  |  |  |
| Total | 6,675 |  |  |  |  |  |  |



## AVERAGE MONTHLY BENEFIT

## Service Retirements

1999-2008


|  | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - Benefit Increases | \$456 | \$483 | \$513 | \$551 | \$601 | \$647 | \$692 | \$743 | \$797 | \$855 |
| - Basic | \$1,449 | \$1,494 | \$1,621 | \$1,702 | \$1,764 | \$1,827 | \$1,904 | \$1,951 | \$1,990 | \$2,029 |

DENVER PUBLIC SCHOOLS
RETIREMENT SYSTEM
3700 E. Alameda Ave.
Suite 400
Denver, Colorado
80209-3172
303.398.7699
wivw.dpsrs.org


[^0]:    - Benefit Payments
    - Refunds
    - Administrative Expenses

[^1]:    * Source: Gabriel, Roeder, Smith \& Company

