

FIRE & POLICE PENSION ASSOCIATION of COLORADO

COMPREHENSIVE

ANNUAL

FINANCIAL

REPORT

for the

FISCAL YEAR

ENDED

**DECEMBER 31, 2016** 

# **FPPA**

This report was created under the direction of the **FPPA Board of Directors** Pamela M. Feely, Chair Nick Nuanes, Vice Chair Jack Blumenthal David L. Bomberger **Todd Bower** Manuel A. Esquibel Sue Morgan **Guy Torres Tyson Worrell** and prepared by the **FPPA Operations Division** Kim Collins, Chief Operations Officer Ahni Smith, Accounting Director



# **FPPA**

Fire & Police Pension Association of Colorado

5290 DTC Parkway, Suite 100 Greenwood Village, CO 80111 303-770-3772 toll-free 800-332-3772

www.FPPAco.org

# FIRE & POLICE PENSION ASSOCIATION of COLORADO





# MISSION STATEMENT

The Fire & Police Pension

Association of Colorado
is committed to our members.

We will prudently invest their
retirement funds,
administer benefits impartially,
and efficiently provide
high quality service.

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#### **FPPA** Administered Plans **FPPA** Defined Benefit System **Defined Benefit Tier Hybrid Tier Local Affiliated Plans** Defined Contribution FPPA Invests & Administers Only **SWDB CSNHP SWH Colorado Springs** Statewide Statewide Old Hire Volunteer **SWMP** New Hire Pension Hybrid Plan **Defined Benefit** Statewide Plans Firefighter Plan Plan Plans Money Defined Benefit Includes Re-Entry and Fire and Police Purchase & Money Purchase hired PRIOR to Supplemental Social and Plan Oct. 1 2006. Security Employers. Money Purchase Only

**SWD&D** Statewide Death & Disability Plan Plans above this bar are covered by the Statewide Death & Disability Plan.

**457** Deferred Compensation Plan

Plans above this bar may participate in the 457 Deferred Compensation Plan.



June 30, 2017

Dear Fire & Police Pension Association Members, Benefit Recipients, Employers, and Members of the Board of Directors:

We are pleased to present the Fire & Police Pension Association's (FPPA) Comprehensive Annual Financial Report (CAFR) for the calendar year ended December 31, 2016. This CAFR was prepared to aid interested parties in assessing FPPA's financial status as of December 31, 2016, and its results for the year then ended. The compilation of this CAFR reflects the combined efforts of FPPA staff and is the responsibility of FPPA management.

#### **Overview of FPPA**

The Fire & Police Pension Association was established in 1980 pursuant to the Colorado Revised Statutes of 1973, as amended. FPPA administers retirement and disability benefits for police officers and firefighters throughout the State of Colorado. FPPA has defined benefit, defined contribution, hybrid, and 457 deferred compensation plans for the benefit of its members. FPPA's defined benefit programs include cost-sharing multiple-employer pension plans as well as agent multiple-employer pension plans and single-employer pension plans. FPPA administers two funds: the Fire & Police Members' Benefit Investment Fund and the Fire & Police Members' Self-Directed Investment Fund ("the Funds").

The Fire & Police Members' Benefit Investment Fund includes the assets of those plans that fall under the complete investment authority of the FPPA Board of Directors. This fund includes the assets of the Defined Benefit System, the Statewide Death & Disability Plan, and Affiliated Local Plans. The Defined Benefit System comprises the Statewide Defined Benefit Plan, the Statewide Hybrid Plan, and the Colorado Springs New Hire Pension Plan. Affiliated Local Plans comprises numerous separate Local "Old Hire" police and fire plans and Volunteer Firefighter pension plans.

The Fire & Police Members' Self-Directed Investment Fund consists of the assets in plans where members control their account by choosing from various mutual fund options selected by the Self-Directed Plans Committee pursuant to the fund structure approved by the Board of Directors. The Fire & Police Members' Self-Directed Investment Fund includes the assets in the Fire & Police Members' Statewide Money Purchase Plan and the Fire & Police Members' Deferred Compensation Plan. In addition, the Fire & Police Members' Self-Directed Investment Fund includes assets of certain Deferred Retirement Option Plans within the Defined Benefit System and affiliated Local "Old Hire" pension plans. This fund also includes the Money Purchase Component of the Defined Benefit System – Statewide Hybrid Plan, and the Separate Retirement Account assets from eligible Defined Benefit System retired members.

# **Financial Highlights**

## **General Economic Conditions**

The Fire & Police Members' Benefit Investment Fund experienced positive performance for the year ended December 31, 2016. Real gross domestic product (GDP), a broad measure of the output of goods and services in the United States, increased at an estimated annual rate of 1.6% in 2016, compared to an increase of 2.6% in 2015. The labor markets improved in 2016 with non-farm payroll employment increasing by 2.2 million jobs during the year. The unemployment rate decreased to 4.7% from 5.0% during 2016. The Federal Reserve increased the targeted federal funds to 0.75% at the end of 2016. The consumer price index increased 1.7% in 2016 compared to an increase of 0.7% in 2015.

The U.S. markets were positive in 2016. Large company stocks, as measured by the Russell 1000 Index, increased 12.1% in 2016 compared to an increase of 0.9% in 2015. Smaller company stocks, as measured by the Russell 2000 Index, increased 21.3% in 2016 compared to a decrease of 4.4% in 2015. The Barclays Capital U.S. Aggregate Bond Index produced a return of 2.6% in 2016 compared to a return of 0.55% in 2015.

Developed international equity markets underperformed the U.S. equity markets in 2016. The MSCI EAFE Index increased by 1.5% in 2016 compared to a decrease of 0.4% in 2015. The MSCI Emerging Markets Index increased 11.6% in 2016 after decreasing 14.6% in 2015.

#### **Letter of Transmittal** continued

In the currency markets, the U.S. dollar was mixed against other major currencies in 2016. The Euro depreciated 3.2% against the Dollar, closing at 1.0517 Dollars per Euro from 1.0862 at the end of 2015. The British Pound depreciated 16.3% against the Dollar, closing at 1.2340 Dollars per GRB from 1.4736 at the end of 2015. The Dollar depreciated 2.9% against the Canadian Dollar resulting in a rate of 1.3441 Canadian Dollars per U.S. Dollar from 1.3839 at the end of 2015. The Dollar depreciated 2.7% relative to the Japanese Yen to 116.96 Yen per Dollar from 120.22 at the end of 2015.

Additional information regarding the investments of the Funds can be found in the Investment section of this report.

#### Investments

Net investible assets totaled \$4.686 billion in market value as of December 31, 2016, which was comprised of the Fire & Police Members' Benefit Investment Fund (\$4.309 billion) and the Fire & Police Members' Self-Directed Investment Fund (\$377 million). The Members' Benefit Investment Fund generated a total time-weighted return of 5.51%, net of fees, for the one-year period ending December 31, 2016. This return was 0.62% below the Implementation Benchmark of 6.13%. The Members' Benefit Investment Fund has achieved a 9.34% annualized return since inception in January 1980.

The Board establishes and continually updates investment allocation targets. At year-end, the following investment allocation targets were in effect: global equity, 36 percent; equity long/short, 10 percent; fixed income & cash, 17 percent; absolute return, 10 percent; managed futures, 4 percent; and illiquid alternatives, 23 percent. At year-end, the Fire & Police Members' Benefit Investment Fund was allocated as follows: Global Equity 38.6%; Equity Long/Short 8.9%; Illiquid Alternatives 23.4%; Fixed Income 15.1%; Absolute Return 9.0%; Managed Futures 3.5%; and Cash & Short Term Investments 1.5%. The Board has established investment policies and objectives to define acceptable levels of risk, asset allocation targets, asset class guidelines, investment performance objectives, and other guidelines governing the management of the Fire & Police Members' Benefit Investment Fund. The Board has adopted a separate statement of policies and objectives for the Fire & Police Members' Self-Directed Investment Fund which includes investment objectives, criteria for the selection of investment options and mutual fund guidelines.

Explanations of FPPA's investment policies and asset allocation strategy, as well as the portfolio's composition are included in the Investment Section of this report. Additionally, a review of investment activity and performance for 2016 is included in that section.

#### **Funding Status**

Each pension plan administered by FPPA must be separately funded. Assets from one plan cannot be used to pay the benefit obligations of any other plan. Therefore, the funding status of each individual plan must be judged separately.

FPPA's funding objective for the Fire & Police Members' Benefit Investment Fund is to meet long-term benefit promises through contributions and investment income. The funding ratios listed below give an indication of how well this objective has been met to date. The higher the funding ratio, the better funded the plan.

The funding ratio (actuarial value of assets divided by actuarial accrued liability) for each of the plans in the Defined Benefit System and the Statewide Death & Disability Plan as of January 1, 2016 is as follows:

Plan (information as of January 1, 2016)	Funding Ratio	Actuarial Value of Assets	Actuarial Accrued Liability
Statewide Death & Disability Plan	104.7%	\$361,070,410	\$344,781,994
Defined Benefit System			
Statewide Defined Benefit Plan	102.4%	1,890,604,068	1,846,961,999
Statewide Hybrid Plan – Defined Benefit Component	132.3%	47,344,971	35,776,922
Colorado Springs New Hire Pension Plan – Police Component	84.9%	271,515,321	319,975,168
Colorado Springs New Hire Pension Plan – Fire Component	80.3%	126,813,938	157,971,179

Affiliated Local Plans are not listed because the data necessary to calculate a gain/loss analysis on all Local Plans was not available as of the January 1, 2016, actuarial valuations.

The Affiliated Local Plans and Colorado Springs New Hire Pension Plan - Police and Fire Components are plans for which FPPA has been asked to and has undertaken investment and recordkeeping responsibility, but are not plans for which FPPA has determined or set the benefits, or the funding policy. Funding for pension liabilities for Affiliated Local Plans is the responsibility of the employers. Funding for the Colorado Springs New Hire Pension Plan – Police and Fire Components is the responsibility of the active members and the employer.

Investment income is a significant driver in a defined benefit plan. Market performance was lower than the actuarial return assumption in 2016, and this factor, viewed in isolation, will likely decrease the funded status of the plans. The actuarial assumptions implemented in January 1, 2016 are a more conservative position for the Fire & Police Pension Association and decreased the funded status of the plans. The assumption changes are discussed in more detail in the Actuarial Section.

## **Active Membership and Participating Employers**

The members listed in the below schedule are comprised of 41.3% police officers, 57.8% firefighters, and 0.9% administrative fire district staff.

Active Membership in the Plans	12/31/2016	12/31/2015	% Change
Statewide Death & Disability Plan	11,975	11,681	2.5%
Defined Benefit System			
Statewide Defined Benefit Plan	7,920	7,550	4.9%
Statewide Hybrid Plan	353	368	(4.1%)
Colorado Springs New Hire Pension Plan*	520	553	(6.0%)
Affiliated Local Plans			
Old Hire*	7	11	(36.4%)
Volunteer Firefighters	3,074	3,243	(5.2%)
Statewide Money Purchase Plan	125	133	(6.0%)

<sup>\*</sup> Plans are closed to new members

The participating employer fire and police departments in the plans are as follows:

Participating Employer Departments in the Plans	12/31/2016	12/31/2015	% Change
Statewide Death & Disability Plan	396	403	(1.7%)
Defined Benefit System			
Statewide Defined Benefit Plan	216	212	1.9%
Statewide Hybrid Plan	37	36	2.8%
Colorado Springs New Hire Pension Plan	1	1	0.0%
Affiliated Local Plans			
Old Hire	49	49	0.0%
Volunteer Firefighters	174	174	0.0%
Statewide Money Purchase Plan	45	41	9.8%

## **Summary Financial Information**

The following schedule is a comparative summary of the revenues and expenses of the Funds for the years ended December 31, 2016 and December 31, 2015.

	12/31/2016	12/31/2015	% Change
Contributions	\$227,732,830	\$249,166,095	(8.6%)
Net Investment Income	246,981,141	72,378,714	241.2%
Benefit Payments and Refunds	(326,863,043)	(330,440,101)	(1.1%)
Administrative Expenses	(7,858,514)	(7,781,821)	1.0%
Pension Expense	(2,223,205)	(442,973)	401.9%
Net Change	\$137,769,209	\$(17,120,086)	(904.7%)

Management's discussion and analysis (MD&A) immediately follows the independent auditor's report and provides a narrative introduction, overview, and analysis of the basic financial statements. The MD&A complements this letter of transmittal and should be read in conjunction with it.

#### **Letter of Transmittal** continued

# **Accounting System and Internal Control**

The financial statements included in this report, along with all other information provided, are the responsibility of the management of the Fire & Police Pension Association. The financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America applicable to financial audit contained in Government Auditing Standards, including the pronouncements of the Governmental Accounting Standards Board (GASB). In management's opinion, the financial statements present fairly the financial position of the FPPA at December 31, 2016, and the result of its operations for the period then ended.

The management of the Fire and Police Pension Association is also responsible for maintaining a system of internal accounting controls designed to provide reasonable assurance that transactions are executed and reported in accordance with generally accepted accounting principles. The concept of reasonable assurance recognizes that:

- (1) The cost of a control should not exceed the benefits likely to be derived; and
- (2) The valuation of costs and benefits requires estimates and judgments by management.

FPPA has an internal audit program that encompasses the examination of internal controls. The internal audit function reports directly to the Executive Director and the Board of Directors. The Board of Directors has established an Audit Committee, comprised of three Board members. The internal auditor reported that FPPA's system of internal controls appears adequate and is being adhered to in the areas tested. Additionally, FPPA completes an annual Service Organization Controls (SOC) 1 Type 2 report on FPPA's internal controls over financial reporting for the Local Affiliated Plans. This report includes controls over information technology and operational processes to provide assurances for Local Affiliated Plans with regard to Governmental Accounting Standards Board (GASB) Statement No. 68, Accounting and Financial Reporting for Pensions. We believe that the internal controls in effect during the year ended December 31, 2016, adequately safeguarded assets and provided reasonable assurance regarding the proper recording and reporting of financial transactions.

# **Newly Implemented Accounting Standards**

FPPA implemented Government Accounting Standards Board (GASB) Statement No. 72, Fair Value Measurement and Application. GASB Statement No. 72 addresses accounting and financial reporting issues related to fair value measurements. The definition of fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. GASB Statement No. 72 provides guidance for determining a fair value measurement for financial reporting purposes and also provides guidance for applying fair value to certain investments and disclosures related to all fair value measurements. Additional information on the impact of implementation is addressed in the Financial Section.

## **Independent Audit**

The accounting firm of CliftonLarsonAllen LLP rendered an opinion as to the fairness of the Funds' 2016 financial statements. The audit was performed in accordance with government auditing standards generally accepted in the United States of America. The Independent Auditors' Report may be found listed in the Table of Contents at the beginning of this document.

#### **Major Initiatives**

In 2016, FPPA updated its strategic plan and made adjustments as needed in response to changing economic conditions. FP-PA's strategic plan provides a road map for meeting the challenges and opportunities in achieving our vision of being a trusted provider of financial security for Colorado police officers and firefighters. The plan guides our efforts to continuously improve our service to our members and employers. A new Board Scorecard has been implemented to provide the Board of Directors with a quick overview of key organizational metrics.

We began an initiative in 2015 to implement the Baldrige Criteria for Performance Excellence to ensure we align our objectives, processes, and resources with our vision. Progress towards meeting our objectives is measured using the following four key results areas:

- Financial Health and Sustainability
- Investment Returns
- Customer Service and Operational Excellence
- Workforce Engagement

Baldrige recipient organizations often set their strategic objectives to achieve a top decile ranking in each key area of importance to their stakeholders. FPPA will follow a similar path as we continue to work to implement this program in 2017. FPPA qualified for the Timberline award in 2016 from the Rocky Mountain Performance Excellence program. Timberline awards are presented to those applicants who demonstrate systematic and mature approaches, effective deployment, process learning, and process integration in their response to criteria questions.

FPPA continued its efforts to improve services, prudently manage fund assets, streamline business operations and increase operational efficiency. In 2016, we completed the following major initiatives:

- FPPA continues to focus on its member and employer education initiative. FPPA's Benefits & Communication Division presented to members from fire and police departments throughout the State covering information about the death and disability benefits, retirement benefits, and other services provided by the Association. At these meetings, we offer retirement projections to assist members in planning for their future retirement needs. FPPA hosts two annual seminars. One seminar is for members with topics including pre-retirement planning, estate and tax planning, insurance services, and long term care insurance. The other seminar is for employers with topics including GASB, managing membership data, contributions reporting, fiduciary responsibility, an overview of the 457 Deferred Compensation Plan, an update from the FPPA Legal department, and other related topics. We strongly recommend these no-cost seminars to members, retirees and employers.
- Enhanced the Employer Portal providing additional features such as the ability to manage documents for required reports. Converted the Member Account Portal (MAP) into a responsive web design to work with portable devices. Redesigned the MAP benefit calculator into a simpler wizard function and expanded the option calculations. Added MAP beneficiary self-service features for active members.
- Redesigned the FPPA website to a responsive web design to work with portable devices. In addition, the new site implemented personas for active members during their career, retirees receiving benefits, employers, and the general public.
- Completed an actuarial audit of the work performed by FPPA's actuary. The audit determined that the actuarial methods, assumptions, processes, and reports are consistent with the applicable Actuarial Standards of Practice and Governmental Accounting Standards Board and were reasonable and appropriate for the valuations. The valuations reviewed provide an appropriate assessment of the health and funding requirements.
- Designed and implemented a revised reentry process for departments interested in affiliating with FPPA that addresses pre-tax/post-tax concerns.
- FPPA revamped its investment governance structure and increased its in-house investment responsibilities. The Investment Staff now oversees and implements portfolio construction and manager selection for all asset classes, subject to approval by an Internal Investment Committee. The Investment Staff continues to expand its responsibility in conducting investment analyses in-house, utilizing external consultants as a resource. In addition, FPPA acquired additional risk management tools for the investment process.

# Legislation

Two pieces of legislation were passed in to law affecting FPPA and its plans in 2016:

#### House Bill 16-1028

Concerning modifying requirements for filing the Statewide Health History form for the Statewide Death and Disability Plan administered by the Fire & Police Pension Association

- Changes the deadline for filing the Statewide Health History form for new firefighters and police officers to within 30 days of the first day of employment.
- Limits pension contributions for a member who becomes eligible for normal retirement while temporarily occupationally disabled to the rate of pension contributions prior to disability up to a maximum of 16%.

#### House Bill 16-1038

Allowing optional affiliation with the Fire & Police Pension Association by a county sheriff department that does not participate in Social Security.

#### **Letter of Transmittal** continued

#### **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 Fire and Police Pension Association for its comprehensive annual financial report for the fiscal year ended December 31, 2015. The Certificate of Achievement is a prestigious national award recognizing conformance with the highest standards for preparation of state and local government financial reports. FPPA has annually received a Certificate of Achievement from GFOA since our first CAFR was published in 1996.

In order to be awarded a Certificate of Achievement, a government unit must publish an easily readable and efficiently organized comprehensive annual financial report, whose contents conform to program standards. The comprehensive annual financial 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. FPPA believes our current report continues to conform to the Certificate of Achievement program requirements, and we are submitting it to GFOA.

In addition, FPPA received The Public Pension Standards Award for 2016 from the Public Pension Coordinating Council. The award recognizes the Association's conformance with professional standards for plan design and administration.

# **Acknowledgments**

This annual report of the Fire and Police Pension Association was prepared through the combined efforts of the FPPA staff under the leadership of the Board of Directors. It is intended to provide complete and reliable information which may be used as a basis for making management decisions and as a means for determining compliance with state statutes.

Access to this report is being provided to the State Auditor, the Joint Budget Committee, the Police Officers' and Firefighters' Pension Reform Commission, all participating employers, and other interested parties.

Respectfully submitted,

Dan M. Slack FPPA Executive Director



Government Finance Officers Association

Certificate of
Achievement
for Excellence
in Financial
Reporting

Presented to

# Fire & Police Pension Association of Colorado

For its Comprehensive Annual Financial Report for the Fiscal Year Ended

**December 31, 2015** 

Jeffry R. Ener

Executive Director/CEO



Public Pension Coordinating Council

Public Pension Standards Award For Funding and Administration 2016

Presented to

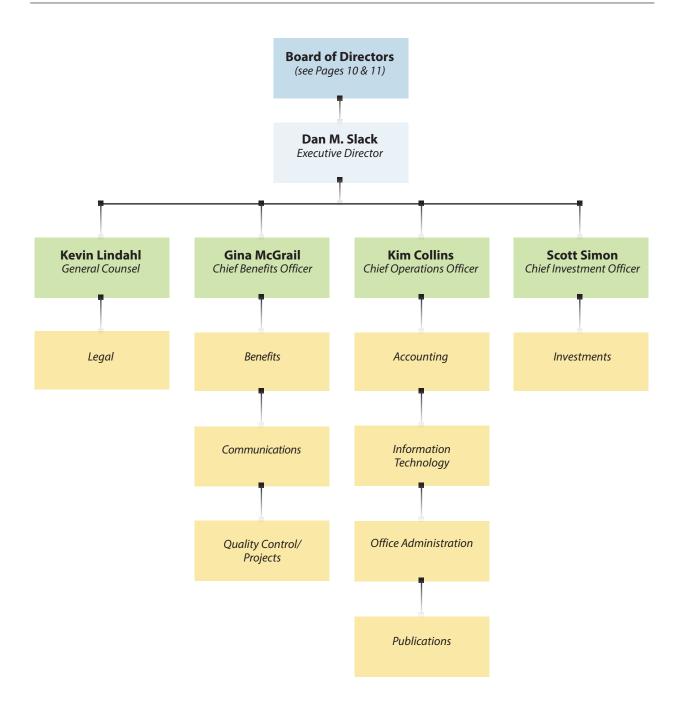
# Colorado Fire and Police Pension Association

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)

alan Helingle



By state statute, the management of the Fire & Police Members' Benefit Investment Fund and the Fire & Police Members' Self-Directed Investment Fund (the Funds) is vested in the Board of Directors of the Fire and Police Pension Association of Colorado. Appointed by the Governor and confirmed by the Senate, the FPPA Board of Directors is composed of nine members:

Two members representing Colorado municipal employers;

One member representing full-time paid firefighters;

One member representing full-time paid police officers;

One member who is either a member of the Board of Directors of a special district, or is the full-time paid professional manager of a special district to represent special districts having volunteer firefighters;

One member from the state's financial or business community with experience in investments;

One member from the state's financial or business community with experience in insurance disability claims; and

One member of the state's financial or business community experienced in personnel or corporate administration in corporations of over 200 employees.

All of the eight Board of Directors mentioned above serve four-year staggered terms.

One member who is a retired firefighter and who, upon completion of his term, is replaced by a retired police officer. Thereafter, the appointment of retired officers alternates between a retired police officer and a retired firefighter for each successive six-year term.

Specific duties of the Board of Directors include investing and managing the Funds, disbursing money from the Funds, setting required contribution levels, and determining the award of disability and survivor benefits. The Board of Directors also appoints an Executive Director who is FPPA's chief administrative officer. The Executive Director appoints FPPA staff who are responsible for the day-to-day administration of the firefighter and police pension funds.

The FPPA Board of Directors accomplishes its business at regular meetings, held ten times per year. In accordance with state law, each meeting's proposed agenda items are posted at least 24 hours in advance. All meetings are open to the public.

# **Board of Directors** as of December 31, 2016



Pamela M. Feely
Board Chair
President,
West Metro Fire Rescue District IV
Member since 2011
Current term expires 9/1/19





Jack Blumenthal
Principal,
Causey Demgen & Moore, Inc.
Member since 2009
Current term expires 9/1/17



D CCP PI M CCC

David L. Bomberger Chief Investment Officer, Pinnacol Assurance Member since 2013 Current term expires 9/1/18

Todd Bower
Deputy Chief,
Denver Fire Department
Member since 2001
Current term expires 9/1/19





Manuel A. Esquibel
City Manager,
City of Brighton
Member since 2013
Current term expires 9/1/19



Sue Morgan Human Resources Manager, Town of Castle Rock Member since 2015 Current term expires 9/1/17



Guy Torres
Managing Director,
Pacific Income Advisers, Inc.
Member since 2016
Current term expires 9/1/20



Tyson Worrell
Detective,
Denver Police Department
Member since 2012
Current term expires 9/1/20

## **Professional Consultants & Investment Managers**

# **Professional Consultants**

#### Actuarial

Cavanaugh Macdonald Consulting, LLC (actuarial audit) Gabriel Roeder Smith & Co

#### **Auditor**

CliftonLarsonAllen LLP

Paragon Audit & Consulting, Inc.

## **Board Medical Advisor**

Clarence Henke, M.D., P.C.

#### **Investment Consultants**

Albourne

Bidart & Ross, Inc.

Pension Consulting Alliance

# **Investment Compliance**

**EIRIS Conflict Risk Network** 

**IW Financial** 

Scherzer International Risk Management

**Background Investigations** 

Subrosa Investigations, LLC

## Master Custodian/Trustee

**BNY Mellon Asset Servicing** 

# Management

Calhoun Consulting Partners, LLC

**Choose People** 

Crescenzo Communications

Gallagher Benefit Services, Inc.

Nicoletti-Flater Associates

# Legal Counsel

Hoffman, Parker, Wilson & Carberry, P.C.

Ice Miller LLP

Jackson Walker LLP

SJT Law, LLC

Stieber Campbell

Thomas L. Kanan, Esq.

# **Governmental Relations**

Lombard & Clayton

# **Investment Managers**

#### **Total Fund Overlay**

**Russell Investments** 

## **Global Equity**

Allianz Global Investors

**Baillie Gifford Overseas** 

**Driehaus Asset Management** 

Kayne Anderson Capital Advisors

**Numeric Investors** 

**Russell Investments** 

State Street Global Advisors

**Walter Scott Partners** 

Winton Capital Management Limited

# **Equity Long/Short**

**AKO Capital** 

**Anchor Bolt Capital** 

**Coatue Qualified Partners** 

**Conatus Capital Associates** 

**Emerging Sovereign Group** 

Hitchwood Capital Management

**Luxor Capital Partners** 

Pershing Square Capital Management

**Rivulet Capital Partners** 

**RK Capital Management** 

Sachem Head Capital Management

Senator Investment Group

**Southpoint Capital Advisors** 

#### Fixed Income

Goldman Sachs Asset Management Manulife Asset Management

**Prudential Capital Group** 

State Street Global Advisors

# **Managed Futures**

**AHL Partners** 

**Graham Capital Management** 

Systematica Investments Services

Winton Capital Management Limited

# **Professional Consultants & Investment Managers** continued

## Real Assets

ArcLight Energy Partners BroadRiver Asset Management

Capital Royalty Partners Energy Capital Partners

Enervest

**EIG Management Company** 

Incus Capital

Petroleum Equity RHO

RiverRock European Capital Partners

**Scout Energy Partners** 

Wood Creek Capital Management

#### Real Estate

Blackrock

**Blackstone Capital Partners** 

H2 Real Estate

JP Morgan Asset Management – Real Estate

Morgan Stanley Real Estate Pauls Realty Fund Advisor Prudential Real Estate Investors RREEF Alternative Investments

Square Mile Velocis

#### Absolute Return

Alphadyne Asset Management AQR Capital Management Arrowgrass Capital Partners

Autonomy Capital HBK Capital Hutchin Hill Capital

MKP Capital Management Pharo Global Advisors Limited

Samlyn Capital

Soroban Capital Partners

## **Private Equity**

**Alchemy Special Opportunities** 

American Securities Boston Ventures

**Bowmark Capital Partners** 

Capital Partners
Catterton Partners
Centre Lane Partners

Coller Investment Management Limited

Commonfund Capital

CVC European Equity Partners Doughty Hanson & Company

# Private Equity - continued

Endeavour Capital
Energy & Minerals Group
Enhanced Equity
Ethos Private Equity
Gilde Buyout Partners
Grey Mountain Partners

HIG Bayside H.I.G. Capital

High Road Capital Partners Insight Venture Partners

J.H. Whitney JMI Equity

Kayne Anderson Capital Advisors Kelso Investment Associates

KPS Capital Partners Larimer Venture Littlejohn & Co. Matlin Patterson Mercato Partners

Mountain View Capital Holdings MVM Life Science Partners

**Nautic Partners** 

NB Dval

**New Enterprise Associates** 

Nordic Capital

NGP Energy Capital Management

Oak Hill Advisors O'Brien-Staley Partners Oxford Bioscience

Palladium Capital Management Raven Capital Management Roark Capital Partners

Rosemont Investment Partners Siguler Guff & Company

**TA Associates** 

**Technology Crossover Ventures** 

Texas Pacific Group
The Raine Group

Thomas McNerney & Partners Transom Capital Group Ufenau Capital Partners Venture Investment Managers

Veritas Capital

#### **General Information**











FPPA administers the Fire & Police Members' Benefit Investment Fund which includes the assets of those plans that fall under the complete investment authority of the FPPA Board of Directors. This fund includes the assets of the Defined Benefit System, the Statewide Death & Disability Plan, and numerous separate Local "Old Hire" police and fire plans, and Volunteer Fire pension plans. The Defined Benefit System comprises the Statewide Defined Benefit Plan, the Statewide Hybrid Plan, and the Colorado Springs New Hire Pension Plan.

In addition, FPPA administers the Fire & Police Members' Self-Directed Investment Fund which consists of the assets of plans where members control their account by choosing from various mutual fund options selected by the Self-Directed Plans Committee pursuant to the fund structure approved by the Board of Directors. The Fire & Police Members' Self-Directed Investment Fund includes the assets in the Fire & Police Members' Statewide Money Purchase Plan, and the IRC 457 Deferred Compensation Plan. In addition, the Fire & Police Members' Self-Directed Investment Fund includes assets of certain Deferred Retirement Option Plans within the Defined Benefit System and Affiliated Local "Old Hire" pension plans. This fund also includes the Money Purchase Component of the Defined Benefit System -Statewide Hybrid Plan and the Separate Retirement Account assets from the eligible Defined Benefit System retired members.

An audit is performed annually on the Fire & Police Members' Benefit Investment Fund and the Fire & Police Members' Self-Directed Investment Fund.

General information about each Fund can be found in the Introductory Section of this annual report. A listing of employers by plan or plan type can be found in the Statistical Section of this report. All data in this annual report, other than the Financial Section which follows, has not been audited by FPPA's outside auditors.

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



CliftonLarsonAllen LLP

#### INDEPENDENT AUDITORS' REPORT

Board of Directors Fire and Police Pension Association of Colorado Greenwood Village, Colorado

#### Report on the Financial Statements

We have audited the accompanying financial statements of the of the Fire and Police Members' Benefit Investment Fund (consisting of the Affiliated Local Plans, the Statewide Death and Disability Plan, and the Defined Benefit System) and the Fire and Police Members' Self-Directed Investment Fund (consisting of the Fire and Police Members' Statewide Money Purchase Plan, the Self-Directed Assets for the Affiliated Local and Defined Benefit System Plans, and the Internal Revenue Code 457 Deferred Compensation Plan) of the Fire and Police Pension Association of Colorado (the "Association"), as of and for the year ended December 31, 2016, and the related notes to the financial statements, as listed in the table of contents.

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

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

#### Auditors' Responsibility

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

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



Board of Directors
Fire and Police Pension Association of Colorado

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

#### Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the Fire and Police Members' Benefit Investment Fund and the Fire and Police Members' Self-Directed Investment Fund as of December 31, 2016, and the changes in fiduciary net position for the year then ended, in accordance with accounting principles generally accepted in the United States of America.

#### **Report on Summarized Comparative Information**

We have previously audited the Association's 2015 financial statements, and we expressed an unmodified audit opinion on those audited financial statements in our report dated June 20, 2016. In our opinion, the summarized comparative information presented herein as of and for the year ended December 31, 2015 is consistent, in all material respects with the audited financial statements from which it has been derived.

#### Other Matters

#### Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, schedule of annual money-weighted rate of return on pension plan investments, schedule of changes in the employer's net pension liability for cost sharing and single employer plans, schedule of employer contributions and notes to required supplementary information for cost sharing and single employer plans, schedule of employers contributions for other postemployment benefits Plans, and schedule of funding progress for other post-employment benefits plans be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

#### Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the Association's basic financial statements. The other supplementary information listed in the table of contents is presented for purposes of additional analysis and are not a required part of the basic financial statements.

# **Independent Auditors' Report** | CliftonLarsonAllen LLP Letter - continued

Board of Directors
Fire and Police Pension Association of Colorado

The other supplementary information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the other supplementary information is fairly stated, in all material respects, in relation to the basic financial statements 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 audit of the basic financial statements and, accordingly, we express no opinion on them.

#### Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated June 6, 2017, on our consideration of the Association's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the result of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Association's internal control over financial reporting and compliance.

CliftonLarsonAllen LLP

Clifton Larson Allen LLP

Denver, Colorado June 6, 2017

# Management's Discussion & Analysis

Management's Discussion and Analysis of the Fire & Police Pension Association's (FPPA) financial performance provides an overview of financial activities for the fiscal year ended December 31, 2016. This discussion and analysis is more meaningful when read in conjunction with the FPPA financial statements and accompanying notes to the financial statements. The FPPA actual results, performance and achievements expressed or implied in these statements are subject to changes in interest rates, securities markets, general economic conditions, legislation, regulations, and other factors.

FPPA administers two funds: the Fire & Police Members' Benefit Investment Fund and the Fire & Police Members' Self-Directed Investment Fund ("the Funds"). The Fire & Police Members' Benefit Investment Fund includes the assets of those plans that fall under the complete investment authority of the FPPA Board of Directors. This fund includes the assets of the Defined Benefit System, the Statewide Death & Disability Plan, and numerous separate Local "Old Hire" police and fire plans, and Volunteer Fire pension plans. The Defined Benefit System comprises the Statewide Defined Benefit Plan, the Statewide Hybrid Plan, and the Colorado Springs New Hire Pension Plan.

The Fire & Police Members' Self-Directed Investment Fund consists of the assets of plans where members control their account by choosing from various mutual fund options selected by the Self-Directed Plans Committee pursuant to the fund structure approved by the Board of Directors or other member-selected investment options available through a Self-Directed Brokerage Account administered by FPPA's recordkeeper. The Fire & Police Members' Self-Directed Investment Fund includes the assets in the Fire & Police Members' Statewide Money Purchase Plan and the IRC 457 Deferred Compensation Plan. In addition, the Fire & Police Members' Self-Directed Investment Fund includes assets of certain Deferred Retirement Option Plans within the Defined Benefit System and affiliated Local "Old Hire" pension plans. This fund also includes the Money Purchase Component of the Defined Benefit System – Statewide Hybrid Plan and the Separate Retirement Account assets from eligible Defined Benefit System retired members.

The members of the FPPA Board of Directors serve as the fiduciaries for the Funds and are responsible for the investment of the Funds. They also select the investment options available to self-directed plan members. As fiduciaries, the FPPA Board members are required to discharge their duties in the interest of members and beneficiaries.

# **Financial Highlights**

Fiduciary Net Position for all plans administered by FPPA increased \$137,769,209 during the calendar year 2016.

#### **Change in Fiduciary Net Position**

Affiliated Local Plans	\$(49,449,362)
Statewide Death & Disability Plan	9,281,790
Defined Benefit System	
Statewide Defined Benefit Plan	136,474,596
Statewide Hybrid Plan	6,741,355
Colorado Springs New Hire Plan – Fire Component	3,588,581
Colorado Springs New Hire Plan – Police Component	12,772,433
FPPA Staff Healthcare Subsidy Plan	7,540
Fire & Police Members' Statewide Money Purchase Plan	1,270,260
Self-Directed Assets for Affiliated Local and Defined Benefit System Plans	6,247,623
IRC 457 Deferred Compensation Plan	10,834,393
otal Increase in Fiduciary Net Position	\$137,769,209

The Fire & Police Members' Benefit Investment Fund experienced continued positive performance for the year ended December 31, 2016. Global stock indices were up approximately 8.5 percent and global bond indices were up approximately 2.1 percent for the year (compared to 2015, where global stock indices were down 1.8 percent along with global bond indices being down 3.2 percent).

#### Financial Section

## Management's Discussion & Analysis continued

For the year ended December 31, 2016, the gross rate of return on the Fire & Police Members' Benefit Investment Fund was 6.3 percent, (5.5 percent, net of fees). Performance for the year ended December 31, 2015 was 2.7 percent (1.9 percent, net of fees). The net investment gain for all of the funds, including the Fire & Police Members' Self-Directed Investment Fund administered by FPPA, for the year ended December 31, 2016 was \$246,675,048 as compared to \$71,940,226 for 2015. Overall the investment portfolio continues to face a low return environment. There are no current known facts, conditions or decisions that are expected to have a significant effect on the financial position or results of operations.

FPPA continues to implement additional risk-reducing strategies, primarily through the use of alternative investments. Noting the additional management fees associated with alternative investments, FPPA studied the most cost-efficient way to effectively implement these investment strategies. FPPA chose to develop in-house investment capabilities in lieu of utilizing third-party consultants and fund-of-funds. As a result, a modest increase in FPPA's operating budget for additional investment staff and resources is balanced against a significant reduction in potential management fees.

#### **Net Investment Gain**

Affiliated Local Plans	\$80,088,389
Statewide Death & Disability Plan	17,935,147
Defined Benefit System	
Statewide Defined Benefit Plan	101,347,158
Statewide Hybrid Plan	2,653,230
Colorado Springs New Hire Plan – Fire Component	6,567,600
Colorado Springs New Hire Plan – Police Component	14,371,234
FPPA Staff Healthcare Subsidy Plan	12,190
Fire & Police Members' Statewide Money Purchase Plan	732,303
Self-Directed Assets for Affiliated Local and Defined Benefit System Plans	15,239,580
IRC 457 Deferred Compensation Plan	7,728,217
Total Net Investment Gain	\$246,675,048

#### **Overview of the Financial Statements**

The FPPA 2016 fund financial statements, notes to financial statements, required supplementary schedules and other supplementary schedules are prepared in conformity with Governmental Accounting Standards Board (GASB) Statement No. 67, Financial Reporting for Pension Plans. Statement No. 67 focuses on plan financial reporting and changes FPPA's financial statements through required note disclosures, actuarial calculations and schedules. In 2015, FPPA began reporting a net pension liability (NPL) instead of the previously required unfunded actuarial accrued liability (UAAL). FPPA has not changed its funding methodology with the implementation of Statement No. 67. Additionally, the Statewide Death & Disability Plan and FPPA Staff Healthcare Subsidy Plan are not impacted by Statement No. 67 and continue to be reported as Other Post-Employment Benefits (OPEB) plans under GASB Statement Nos. 43 and 45.

The management discussion and analysis is intended to serve as an introduction to FPPA's Financial Statements. Below is a short description of the following four components of the Financial Section for FPPA: (1) Fund Financial Statements, (2) Notes to the Financial Statements, (3) Required Supplementary Information, and (4) Other Supplementary Schedules.

Fund Financial Statements. There are two financial statements presented for the Funds. The Statement of Fiduciary Net Position is a snapshot of account balances as of December 31, 2016. This statement reflects the net assets available to pay future pension benefits. The Statement of Changes in Fiduciary Net Position reflects all the activities that occurred during the year ended December 31, 2016. This statement shows the impact of those activities as additions and deductions to the Funds.

Notes to the Financial Statements. The notes are an integral part of the financial statements and provide additional

information that is essential for a full understanding of the data provided in the fund financial statements.

**Required Supplementary Information.** The required supplementary information consists of the following schedules: Schedule of Annual Money-Weighted Return on Pension Plan Investments, Schedule of Changes in the Employers' Net Pension Liability, Schedule of Employers' Contributions, Schedule of Funding Progress for OPEB Plans and Schedule of Employer Contributions for OPEB Plans.

Other Supplementary Schedules. The additional schedules (Fiduciary Net Position by Participating Employer, Payments to Consultants, Schedule of Administration and Investment Expenses) are presented for the purpose of additional analysis.

# **Comparative Summary Financial Statements**

Fire & Police Members' Benefit Investment Fund. The defined benefit plans within this fund provide retirement, survivor and disability benefits to the employees of affiliated employers. Benefits are funded by member, employer and State of Colorado contributions and by earnings on investments.

Fire & Police Members' Self-Directed Investment Fund. The defined contribution plan assets are held for the exclusive benefit of the members. Benefits are funded by member and/or employer contributions and by earnings on the investments.

Fire & Police Members' Benefit Investment Fund Fiduciary Net Position	12/31/2016	12/31/2015	% Change
Assets			
Cash and Short Term Investments	\$225,582,807	\$112,115,091	101.21%
Securities Lending Collateral	77,397,016	90,788,092	(14.75%)
Total Other Investments	4,084,258,668	4,005,627,901	1.96%
Receivables	17,570,051	91,135,518	(80.85%)
Other Assets	3,957,706	4,242,253	(6.71%)
Deferred Outflows of Resources	3,587,365	1,303,567	175.20%
Total Assets	\$4,412,353,613	\$4,305,212,422	2.49%
Liabilities			
Securities Lending Liabilities	\$77,357,635	\$90,783,248	(14.79%)
Investment and Other Liabilities	8,438,940	10,875,965	(22.41%)
Deferred Intflows of Resources	208,317		100.00%
Net Pension Liability	17,552,907	14,174,328	23.84%
Total Liabilities	\$103,557,799	\$115,833,541	(10.60%)
Fiduciary Net Position Restricted for Pension and Other			
Post-Employment Benefits	\$4,308,795,814	\$4,189,378,881	2.85%

# Financial Section

# Management's Discussion & Analysis continued

Fire & Police Members' Self-Directed Investment Fund Fiduciary Net Position	12/31/2016	12/31/2015	% Change
Assets			
Cash and Short Term Investments	\$161,989	\$205,748	(21.27%)
Total Other Investments	374,819,565	357,207,630	4.93%
Receivables	1,815,122	1,031,022	76.05%
Fiduciary Net Position Restricted for Pension and			
Other Post-Employment Benefits	\$376,796,676	\$358,444,400	5.12%

Fire & Police Members' Benefit Investment Fund Changes in the Fiduciary Net Position	12/31/2016	12/31/2015	% Change
Additions			
Employer Contributions	\$108,459,923	\$120,765,934	(10.19%)
Member Contributions	71,090,171	81,888,575	(13.19%)
Contributions for Service Reinstatement	59,172		100.00%
Affiliations (Withdrawals) *		(424,968)	100.00%
State Contributions	2,942,988	2,916,894	0.89%
Investment Income	222,974,948	72,866,479	206.00%
Securities Lending Income	306,093	438,488	(30.19%)
Total Additions	\$405,833,295	\$278,451,402	45.75%
Deductions			
Benefit Payments	\$274,598,388	\$260,160,933	5.55%
Refunds of Contributions	3,058,092	2,083,960	46.74%
Administrative Expenses	6,536,677	6,131,263	6.61%
Pension Expense	2,223,205	1,245,947	78.43%
Total Deductions	\$286,416,362	\$269,622,103	6.23%
Change in Fiduciary Net Position Restricted for Pension and			
Other Post-Employment Benefits	\$119,416,933	\$8,829,299	1252.51%

<sup>\*</sup> The fiduciary net position of the Fire & Police Members' Benefit Investment Fund decreased by \$424,968 due to the idle funds distribution of Cedaredge Old Hire Police Plan and Rocky Ford Old Hire Fire Plan during 2015.

# Management's Discussion & Analysis continued

Fire & Police Members'	12/21/2016	12/21/2015	0/ 61
Self-Directed Investment Fund Changes in Fiduciary Net Position	12/31/2016	12/31/2015	% Change
Additions			
Employer Contributions	\$3,216,216	\$3,146,176	2.23%
Member Contributions	41,964,360	40,873,484	2.67%
Investment Income/(Loss)	23,700,100	(926,253)	2658.71%
Total Additions	\$68,880,676	\$43,093,407	59.84%
Deductions			
Refunds of Contributions	\$49,206,563	\$68,195,208	(27.84%)
Administrative Expenses	1,321,837	847,584	55.95%
Total Deductions	\$50,528,400	\$69,042,792	(26.82%)
Change in Fiduciary Net Position Restricted for Pension and			
Other Post-Employment Benefits	\$18,352,276	\$(25,949,385)	170.72%

# **Financial Section B** Basic Financial Statements

**Statement of Fiduciary Net Position** | December 31, 2016 with Comparative Combined Totals for 2015

	Total Members' Benefit Investment Fund	Total Members' Self-Directed Investment Fund	Combined Totals 2016	Combined Totals 2015
ASSETS				
Cash & Short Term Investments (Note 4)	\$225,582,807	\$161,989	\$225,744,796	\$112,320,839
Investments (Note 4)				
Fixed Income	760,159,795		760,159,795	766,317,573
Global Equity	1,401,071,123		1,401,071,123	1,284,501,375
Equity Long/Short	382,439,478		382,439,478	437,548,064
Real Assets	236,471,123		236,471,123	124,384,305
Real Estate	200,004,785		200,004,785	220,458,804
Absolute Return	383,507,769		383,507,769	401,528,607
Private Capital	570,893,680		570,893,680	
Private Equity				533,102,280
Private Debt				72,502,251
Managed Futures	149,710,915		149,710,915	165,284,642
Domestic Equity Funds		90,101,284	90,101,284	89,206,628
International Equity Funds		15,390,927	15,390,927	16,340,151
Balanced Funds		154,941,810	154,941,810	136,623,364
Fixed Income Funds		20,650,694	20,650,694	20,913,425
Money Market & Stable Value Funds		35,638,775	35,638,775	35,357,769
Brokeragelink Funds		58,096,075	58,096,075	58,766,293
Securities Lending Collateral	77,397,016		77,397,016	90,788,092
Total Investments	\$4,161,655,684	\$374,819,565	4,536,475,249	\$4,453,623,623
Total Cash and Investments	\$4,387,238,491	\$374,981,554	4,762,220,045	\$4,565,944,462
Receivables				
Other	\$46,384	\$1,400,848	\$1,447,232	\$768,539
Assets Sold-Pending Trades	9,644,854		9,644,854	84,824,914
Contributions	3,111,404	414,274	3,525,678	1,610,175
Accrued Interest and Dividends	4,767,409		4,767,409	4,962,912
Total Receivables	\$17,570,051	\$1,815,122	\$19,385,173	\$92,166,540
Properties and Equipment, at Cost, Net of				
Accumulated Depreciation/Amortization (Note 7)	\$3,748,192		\$3,748,192	\$4,001,722
Other Assets	209,514		209,514	240,531
	203/311		203/311	210,551
Deferred Outflows of Resources Changes in Net Pension Liability (Note 8)	3,587,365		3,587,365	1,303,567
TOTAL ASSETS	\$4,412,353,613	\$376,796,676	\$4,789,150,289	\$4,663,656,822
	<del>+ -,,,</del>	4010/110/010	, ,,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
LIABILITIES				
Payables Accounts, Employee and Participants Payable	¢2 206 422		\$2.206.422	¢1 072 152
Assets Purchased-Pending Trades	\$2,286,432		\$2,286,432 6,152,508	\$1,872,153
	6,152,508			9,003,812
Securities Lending Liabilities (Note 4) <b>Deferred Inflows of Resources</b>	77,357,635		77,357,635	90,783,248
	200 217		200 217	
Changes in Net Pension Liability (Note 8)	208,317		208,317	14 174 220
Net Pension Liability (Note 8)  TOTAL LIABILITIES	17,552,907		17,552,907	14,174,328
TOTAL LIADILITIES	\$103,557,799		\$103,557,799	\$115,833,541
FIDUCIARY NET POSITION RESTRICTED FOR PENSION AND OTHER POST-EMPLOYMENT BENEFITS	\$4,308,795,814	\$376,796,676	\$4,685,592,490	\$4,547,823,281
	. ,,,	, ,	. , ,	. , . ,

**Statement of Changes in Fiduciary Net Position** | For the year ended December 31, 2016 with Comparative Combined Totals for 2015

	Total Members' Benefit Investment Fund	Total Members' Self-Directed Investment Fund	Combined Totals 2016	Combined Totals 2015
ADDITIONS				
Contributions				
Employer	\$108,459,923	\$3,216,216	\$111,676,139	\$123,912,110
Member	71,090,171	41,964,360	113,054,531	122,762,059
Contributions for Service Reinstatements	59,172		59,172	
Affiliations (Withdrawals)				(424,968)
State Contributions	2,942,988		2,942,988	2,916,894
Total Contributions	\$182,552,254	\$45,180,576	\$227,732,830	\$249,166,095
Investment Income				
Net Appreciation (Depreciation) in Fair Value of Investment	s \$197,351,252	\$12,405,061	\$209,756,313	\$14,523,801
Interest	11,627,940	32,447	11,660,387	10,392,269
Dividends	32,628,103	8,597,417	41,225,520	48,035,074
Other Income	17,504,138		17,504,138	33,994,461
Brokeragelink Income (Loss)	,50 .,.50	2,665,175	2,665,175	(351,346)
Gain on Securities Lending	34,537	_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	34,537	72,407
Total Investment Income (Loss)	\$259,145,970	\$23,700,100	\$282,846,070	\$106,666,666
Less Investment Consulting	\$756,225		\$756,225	\$743,225
Less Investment Management Fees	31,361,216		31,361,216	30,202,534
Less Investment Legal Fees	325,366		325,366	252,619
Less Investment Closing Costs	55,614		55,614	106,869
Less FPPA Investment Personnel Services	2,518,564		2,518,564	2,375,749
Less Bank Fees	800,632		800,632	775,499
Less Other Misc. Investment Expenses	353,405		353,405	269,945
Net Investment Income	\$222,974,948	\$23,700,100	\$246,675,048	\$71,940,226
Securities Lending				
Income	\$524,125		\$524,125	\$197,231
Borrowers Rebates	(64,014)		(64,014)	418,637
Agent Fees	(154,018)		(154,018)	(177,380)
Net Securities Lending Income	\$306,093		\$306,093	\$438,488
Total Additions	\$405,833,295	\$68,880,676	\$474,713,971	\$321,544,809
DEDUCTIONS				
Benefit Payments	\$274,598,388		\$274,598,388	\$260,160,933
Refunds of Contributions (including interest earned	l) 3,058,092	49,206,563	52,264,655	70,279,168
Administrative Expenses	6,536,677	1,321,837	7,858,514	6,978,847
Pension Expense	2,223,205		2,223,205	1,245,947
Total Deductions	\$ 286,416,362	50,528,400	336,944,762	338,664,895
NET INCREASE (DECREASE) IN FIDUCIARY NET POSITION	\$119,416,933	\$18,352,276	\$137,769,209	\$ (17,120,086)
FIDUCIARY NET POSITION RESTRICTED FOR PI	ENSION AND OTHE	R POST-FMPI OVM	FNT RENEFITS	di.
BEGINNING OF YEAR	\$4,189,378,881	\$358,444,400	\$4,547,823,281	\$4,564,943,367
END OF YEAR	\$4,308,795,814	\$376,796,676	\$4,685,592,490	\$4,547,823,281

**Statement of Fiduciary Net Position** | December 31, 2016

			Defined Benefit Syste			
	Affiliated Local Plans	Statewide Death & Disability	Statewide Defined Benefit	Statewide Hybrid DB Component	Colorado Springs Fire Component	
ASSETS		2.00.0	Jenene	- Component	- Component	
Cash & Short Term Investments (Note 4)	\$79,166,159	\$18,838,208	\$103,685,276	\$2,772,202	\$6,611,951	
Investments (Note 4)	412/120/102	1.0/220/200	4 100/000/21	+-/-·-/	1-1	
Fixed Income	\$266,770,911	\$63,480,229	\$349,394,439	\$9,341,655	\$22,280,683	
Global Equity	491,692,697	117,002,129	643,978,361	17,217,858	41,066,132	
Equity Long/Short	134,213,528	31,937,161	175,781,760	4,699,825	11,209,502	
Real Assets	82,987,310	19,747,481	108,689,904	2,906,010	6,931,093	
Real Estate	70,189,793	16,702,211	91,928,776	2,457,872	5,862,246	
Absolute Return	134,588,435	32,026,373	176,272,781	4,712,953	11,240,814	
Private Capital	200,349,753	47,674,794	262,401,509	7,015,750	16,733,194	
Private Equity	200,515,755	17,071,751	202,101,303	7,013,730	10,733,171	
Private Legalty Private Debt			-			
Managed Futures	52,539,634	12,502,217	68,812,060	1,839,808	4,388,106	
Domestic Equity Funds	32,339,034	12,302,217	00,012,000	1,000,000	7,500,100	
International Equity Funds			-			
Balanced Funds			-			
Fixed Income Funds			-			
Money Market & Stable Value Funds  Brokeragelink Funds						
	27 161 752	6 462 252	25 574 214	0F1 127	2 260 547	
Securities Lending Collateral  Total Investments	27,161,753	6,463,352	35,574,214	951,137	2,268,547	
Total Cash and Investments	\$1,460,493,814 \$1,539,659,973	\$347,535,947 \$366,374,155	\$1,912,833,804 \$2,016,519,080	\$51,142,868 \$53,915,070	\$121,980,317 \$128,592,268	
	\$1,559,655,75	\$300,374,133	\$2,010,319,000	\$33,913,070	\$120,392,200	
Receivables						
Other	\$16,278	\$3,873	\$21,319	\$570	\$1,360	
Assets Sold-Pending Trades	3,384,771	805,433	4,433,092	118,526	282,696	
Contributions	494,633	370,205	1,501,066	25,795	252,323	
Accrued Interest and Dividends	1,673,077	398,122	2,191,258	58,587	139,735	
Total Receivables	\$5,568,759	\$1,577,633	\$8,146,735	\$203,478	\$676,114	
Properties and Equipment, at Cost, Net of Accum	nulated					
Depreciation/Amortization (Note 7)	\$1,315,393	\$313,008	\$1,722,792	\$46,062	\$109,861	
Other Assets	73,526	17,496	96,300	2,575	6,141	
Deferred Outflows of Resources						
Changes in Net Pension Liability (Note 8)	\$1,258,952	\$299,577	\$1,648,871	\$44,085	\$105,148	
TOTAL ASSETS	\$1,547,876,603	\$368,581,869	\$2,028,133,778	\$54,211,270	\$129,489,532	
LIABILITIES						
Payables						
Accounts, Employee and Participants Payable	\$802,402	\$190,938	\$1,050,919	\$28,098	\$67,017	
Assets Purchased-Pending Trades	2,159,165	513,790	2,827,895	75,609	180,333	
Securities Lending Liabilities (Note 4)	27,147,932	6,460,063	35,556,113	950,653	2,267,393	
Deferred Intflows of Resources	۷,۱٦۱,۶۵۷	0,700,003	1,000,110	930,033	۷,۷01,۵33	
Changes in Net Pension Liability (Note 8)	73,107	17,396	95,750	2,560	6,106	
Net Pension Liability (Note 8)				2,560	514,485	
TOTAL LIABILITIES	6,160,027 <b>\$36,342,633</b>	1,465,827	8,067,893 <b>\$47,598,570</b>	\$1,272,629	\$3,035,334	
		\$8,648,014	347,386,370	31,272,029	33,U33,334	
FIDUCIARY NET POSITION RESTRICTED FOR P		£350 033 055	£1 000 535 300	ĆE2 020 644	¢126 454 100	
AND OTHER POST-EMPLOYMENT BENEFITS	\$1,511,533,970	\$359,933,855	\$1,980,535,208	\$52,938,641	\$126,454,198	

		<b>T</b> . I					
Colorado Springs Police Component	FPPA Staff Healthcare Subsidy	Total Members' Benefit Investment Fund	Members' Statewide Money Purchase	Self-Directed Assets for Affiliated Local & DB System	IRC 457 Deferred Compensation	Total Members' Self-Directed Investment Fund	Combined Totals 2016
component	Subsituy	1 4114	i di ciidoc	u DD System	compensation		20.0
\$14,496,581	\$12,430	\$225,582,807	\$2,147	\$108,784	\$51,058	\$161,989	\$225,744,796
\$48,849,992	\$41,886	\$760,159,795					\$760,159,795
90.036.744	77,202	1,401,071,123					1,401,071,123
24,576,629	21,073	382,439,478					382,439,478
15,196,295	13,030	236,471,123					236,471,123
12,852,866	11,021	200,004,785					200,004,785
24,645,281	21,132	383,507,769					383,507,769
36,687,223	31,457	570,893,680					570,893,680
9,620,841	8,249	149,710,915					149,710,915
			3,159,120	46,235,060	40,707,104	90,101,284	90,101,284
			426,089	8,800,664	6,164,174	15,390,927	15,390,927
			5,530,877	101,543,790	47,867,143	154,941,810	154,941,810
			627,274	12,848,367	7,175,053	20,650,694	20,650,694
			346,314	30,200,430	5,092,031	35,638,775	35,638,775
			33,953	54,181,998	3,880,124	58,096,075	58,096,075
4,973,748	4,265	77,397,016					77,397,016
\$267,439,619	\$229,315	\$4,161,655,684	\$10,123,627	\$253,810,309	\$110,885,629	\$374,819,565	\$4,536,475,249
\$281,936,200	\$241,745	\$4,387,238,491	\$10,125,774	\$253,919,093	\$110,936,687	\$374,981,554	\$4,762,220,045
\$2,981	\$3	\$46,384		\$32,787	\$1,368,061	\$1,400,848	\$1,447,232
619,805	531	9,644,854					9,644,854
467,382		3,111,404	19,219	159,388	235,667	414,274	3,525,678
306,367	263	4,767,409	,—				4,767,409
\$1,396,535	\$797	\$17,570,051	\$19,219	\$192,175	\$1,603,728	\$1,815,122	\$19,385,173
4 - 12 - 21 - 2 -	1	4 11 /01 0/00 1	7 17/217	4	4 1/2 22/1 22	7 1/2 15/1-1	, , , , , , , , , , , , , , , , , , , ,
\$240,869	\$207	\$3,748,192					\$3,748,192
13,464	12	209,514					209,514
,		,					
\$230,534	\$198	\$3,587,365					\$3,587,365
\$283,817,602	\$242,959	\$4,412,353,613	\$10,144,993	\$254,111,268	\$112,540,415	\$376,796,676	\$4,789,150,289
\$146,932	\$126	\$2,286,432					\$2,286,432
395,377	339	6,152,508					6,152,508
4,971,218	4,263	77,357,635					77,357,635
,,,,,	-,===	,,,					, ,
13,387	11	208,317					208,317
1,127,999	967	17,552,907				1	17,552,907
\$6,654,913	\$5,706	\$103,557,799					\$103,557,799
\$277,162,689	\$237,253	\$4,308,795,814	\$10,144,993	\$254,111,268	\$112,540,415	\$376,796,676	\$4,685,592,490

**Statement of Changes in Fiduciary Net Position** for the Year Ended December 31, 2016

				Defined Benefit Sy			
	Affiliated Local Plans	Statewide Death & Disability	Statewide Defined Benefit	Statewide Hybrid DB Component	Colorado Springs Fire Component		
ADDITIONS		•		•			
Contributions							
Employer	\$39,169,647	\$15,145,180	\$41,240,159	\$1,296,013	\$3,700,396		
Member	156,691	3,231,908	59,793,315	4,117,438	1,082,855		
Contributions for Service Reinstatements	130,091	3,231,900	20,412	4,117,430	38,760		
Affiliations (Withdrawls)			20,412		30,700		
State Contributions	2 042 000						
	2,942,988	¢10.277.000	¢101.053.006	ČE 412 451	ć4 022 011		
Total Contributions	\$42,269,326	\$18,377,088	\$101,053,886	\$5,413,451	\$4,822,011		
Investment Income							
Net Appreciation (Depreciation) in Fair Value of Investme	nts \$70,304,741	\$16,469,302	\$89,817,157	\$2,353,896	\$5,774,019		
Interest	4,204,863	972,037	5,234,069	134,619	340,860		
Dividends	11,775,407	2,726,640	14,709,348	378,812	956,264		
Other Income	6,217,051	1,458,275	7,985,677	211,741	510,993		
Brokeragelink Income							
Gain on Securities Lending	12,460	2,886	15,572	402	1,013		
Total Investment Income	\$92,514,522	\$21,629,140	\$117,761,823	\$3,079,470	\$7,583,149		
Less Investment Consulting	\$259,792	\$77,230	\$343,180	\$8,912	\$21,232		
Less Investment Management Fees	10,773,779	3,202,788	14,231,943	369,560	880,508		
Less Investment Legal Fees	111,776	33,228	147,653	3,834	9,135		
Less Investment Closing Costs	19,106	5,680	25,238	655	1,561		
Less FPPA Investment Personnel Services	865,223	257,210	1,142,942	29,679	70,712		
Less Bank Fees	275,048	81,765	363,332	9,435	22,479		
Less Other Misc. Investment Expenses		36,092			9,922		
Net Investment Income	121,409	· · · · · · · · · · · · · · · · · · ·	160,377	4,165			
Net investment income	\$80,088,389	\$17,935,147	\$101,347,158	\$2,653,230	\$6,567,600		
Securities Lending							
Income	\$183,937	\$43,769	\$240,905	\$6,441	\$15,362		
Borrowers Rebates	(22,465)	(5,346)	(29,422)	(787)	(1,876)		
Agent Fees	(54,051)	(12,862)	(70,792)	(1,893)	(4,514)		
Net Securities Lending Income	\$107,421	\$25,561	\$140,691	\$3,761	\$8,972		
Total Additions	\$122,465,136	\$36,337,796	\$202,541,735	\$8,070,442	\$11,398,583		
DEDUCTIONS							
Benefit Payments	\$168,257,048	\$26,128,642	\$60,019,888	\$1,191,766	\$7,395,735		
Refunds of Contributions (including interest earned		59,172	1,813,180	17,151	167,056		
Administrative Expenses	2,238,786	684,693	2,961,033	76,562	182,391		
Pension Expense	500,661	183,499	1,273,038	43,608	64,820		
Total Deductions	\$171,914,498	\$27,056,006	\$66,067,139	\$1,329,087	\$7,810,002		
NET INCREASE (DECREASE) IN FIDUCIARY NET POSITION	\$(49,449,362)	\$9,281,790	\$136,474,596	\$6,741,355	\$3,588,581		
FIDUCIARY NET POSITION RESTRICTED FOR PENSI	ON AND OTHER P	OST-EMPLOYMEN	T BENEFITS				
	\$1,560,983,332	\$350,652,065	\$1,844,060,612	\$46,197,286	\$122,865,617		
	\$1,511,533,970	\$359,933,855	\$1,980,535,208	\$52,938,641	\$126,454,198		

Colorado Springs Police	FPPA Staff Healthcare	Total Members' Benefit Investment	Members' Statewide Money	Self-Directed Assets for Affiliated Local	IRC 457 Deferred	Total Members' Self-Directed Investment	Combined Totals
Component	Subsidy	Fund	Purchase	& DB System	Compensation	Fund	2016
 \$7,900,050	\$8,478	\$108,459,923	\$424,263	\$1,630,058	\$1,161,895	\$3,216,216	\$111,676,139
 2,707,964		71,090,171	406,716	32,195,754	9,361,890	41,964,360	113,054,531
 		59,172					59,172
		2.042.000					2.042.000
\$10,608,014	\$8,478	2,942,988 <b>\$182,552,254</b>	\$830,979	\$33,825,812	\$10,523,785	\$45,180,576	2,942,988 <b>\$227,732,830</b>
\$10,000,014	30,470	\$162,332,234	\$630,979	\$55,025,012	\$10,323,763	\$43,160,370	\$227,732,630
\$12,621,444	\$10,693	\$197,351,252	\$424,148	\$7,891,745	\$4,089,168	\$12,405,061	\$209,756,313
 740,861	631	11,627,940	244	28,741	3,462	32,447	11,660,387
 2,079,859	1,773	32,628,103	305,960	4,804,054	3,487,403	8,597,417	41,225,520
 1,119,458	943	17,504,138					17,504,138
 			1,951	2,515,040	148,184	2,665,175	2,665,175
 2,202	2	34,537		_,	,		34,537
\$16,563,824	\$14,042	\$259,145,970	\$732,303	\$15,239,580	\$7,728,217	\$23,700,100	\$ 282,846,070
	, ,	, , ,	,				
\$45,840	\$39	\$756,225					\$756,225
 1,901,033	1,605	31,361,216					31,361,216
 19,723	17	325,366					325,366
 3,371	3	55,614					55,614
 152,669	129	2,518,564					2,518,564
 48,532	41	800,632					800,632
 21,422	18	353,405					353,405
\$14,371,234	\$12,190	\$ 222,974,948	\$732,303	\$15,239,580	\$7,728,217	\$23,700,100	\$246,675,048
	. ,	, ,					
 \$33,682	\$29	\$524,125					\$524,125
 (4,114)	(4)	(64,014)					(64,014)
(9,898)	(8)	(154,018)					(154,018)
\$19,670	\$17	\$306,093					\$306,093
\$24,998,918	\$20,685	\$405,833,295	\$1,563,282	\$49,065,392	\$18,252,002	\$68,880,676	\$474,713,971
\$11,592,619	\$12,690	\$274,598,388					\$274,598,388
 83,530	Ţ. <u>_</u> ,_,	3,058,092	247,528	41,738,925	7,220,110	49,206,563	52,264,655
 392,882	330	6,536,677	45,494	1,078,844	197,499	1,321,837	7,858,514
 157,454	125	2,223,205	13,171	1,070,011	137,133	1,321,037	2,223,205
\$12,226,485	\$13,145	\$286,416,362	\$293,022	\$42,817,769	\$7,417,609	\$50,528,400	\$336,944,762
1 1 1 1	, , , , , ,	, , , , , , , , , , , , , , , , , , , ,	1/	,,,	41,111,111	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
\$12,772,433	\$7,540	\$119,416,933	\$1,270,260	\$6,247,623	\$10,834,393	\$18,352,276	\$137,769,209
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4244 200 254	ć220 <b>7</b> 42	¢4 400 270 000	ćo 074 705	£247.042.44=	¢101 704 005	12F0 444 400	£4 £47 000 000
 \$264,390,256	\$229,713	\$4,189,378,881	\$8,874,733	\$247,863,645	\$101,706,022	\$358,444,400	\$4,547,823,281
 \$277,162,689	\$237,253	\$4,308,795,814	\$10,144,993	\$254,111,268	\$112,540,415	\$376,796,676	\$4,685,592,490

# **NOTE 1 | ORGANIZATION & PLAN DESCRIPTIONS**

The Fire & Police Members' Benefit Investment Fund was established in 1980 pursuant to the Colorado Revised Statutes of 1973, as amended. (The fund was originally named the Fire & Police Members' Benefit Fund; the name was changed to the Fire & Police Members' Benefit Investment Fund as a result of legislation enacted in 2006.) The Fire & Police Members' Self-Directed Investment Fund was created by Colorado House Bill 1059 in 2006. It combined the separate money purchase plan and self-directed plan funds that had been created by prior legislation. The Funds are administered by a nine-member Board of Directors appointed by the Governor and confirmed by the Senate to serve four-year staggered terms. In 2010, legislation was passed to extend the term of the retired member position of the Board to a six-year term. As trustee, the Fire & Police Pension Association of Colorado (FPPA), collects, invests, administers, and disburses monies on behalf of fire fighters and police officers in the State of Colorado within the Fire & Police Members' Benefit Investment Fund and the Fire & Police Members' Self-Directed Investment Fund.

The Fire & Police Members' Benefit Investment Fund includes the assets of those plans that fall under the complete investment authority of the FPPA Board of Directors. This fund includes the assets of the Defined Benefit System, affiliated Local "Old Hire" police and fire plans, affiliated Volunteer Firefighter pension plans, and the Statewide Death & Disability plan.

The Fire & Police Members' Self-Directed Investment Fund consists of the assets of plans where members control their account by choosing from various mutual fund options selected by the Self-Directed Plans Committee pursuant to the fund structure approved by the Board of Directors or other member-selected investment options available through a Self-Directed Brokerage Account administered by FPPA's recordkeeper. This fund includes the assets in the Fire & Police Members' Statewide Money Purchase Plan and the IRC 457 Deferred Compensation Plan. In addition, this fund includes assets of certain Deferred Retirement Option Plans within the Defined Benefit System and affiliated Local "Old Hire" pension plans. It also includes the Money Purchase component of the Defined Benefit System – Statewide Hybrid Plan and the Separate Retirement Account assets from eligible Defined Benefit System retired members.

The Affiliated Local Plans include defined benefit retirement plans for fire and police employees in the State of Colorado hired before April 8, 1978 (Old Hires), provided that such plans have affiliated with FPPA, and the affiliated Volunteer Firefighter pension plans in the State of Colorado. Collectively, these are agent multiple-employer plans.

The **Statewide Death & Disability Plan** is a cost-sharing multiple-employer defined benefit death and disability plan. This plan is reported as an other post-employment plan (OPEB) based on the criteria established by the Governmental Accounting Standards Board (GASB).

The Defined Benefit System comprises the Statewide Defined Benefit Plan, the Statewide Hybrid Plan, and the Colorado Springs New Hire Pension Plan.

The Statewide Defined Benefit Plan covers fire and police employees hired in the State of Colorado by affiliated employers on or after April 8, 1978.

The Statewide Hybrid Plan became effective January 1, 2004 and provides a combination of defined benefit and money purchase retirement benefits to the Members of those Employers who have either (1) established a local money purchase plan pursuant to C.R.S. § 31-30.5-801 or 31-31-601 or (2) withdrawn into the Statewide Money Purchase Plan pursuant to C.R.S. § 31-31-501 and subsequently elected to participate in the Statewide Hybrid Plan under C.R.S. § 31-31-1101.

The Colorado Springs New Hire Pension Plan was formed as of October 1, 2006 from two plans merging into one plan document but with a fire and police component. The Plan covers firefighters and police officers who were hired by the City of Colorado Springs on or after April 8, 1978 but prior to October 1, 2006.

The FPPA Staff Healthcare Subsidy Plan provides a post-employment healthcare premium subsidy for FPPA Staff meeting minimum service requirements.

The Fire & Police Members' Statewide Money Purchase Plan is a multiple-employer defined contribution plan.

The Self-Directed Assets for Affiliated Local and Defined Benefit System Plans include supplemental benefits for the De-

ferred Retirement Option Plans (DROP), the Money Purchase component for the Statewide Hybrid Plan, and the Separate Retirement Account assets from eligible Defined Benefit System retired members.

The IRC 457 Deferred Compensation Plan, created under Internal Revenue Code Section 457, collects amounts deferred by participants of affiliated employers. The assets are held in trust for the exclusive benefit of participants.

In order to facilitate investing and to reduce operating costs, FPPA pools assets within the Fire & Police Members' Benefit Investment Fund for investment purposes. Each month shared revenues (i.e., investment income or loss) and shared operating expenses are allocated to each affiliate and to the statewide plans, based upon each plan's proportionate share of total assets. Assets in the Fire & Police Members' Self-Directed Investment Fund are excluded from this allocation process.

#### A. Affiliated Local Plans

#### 1. Plan Description

This is an agent multiple-employer Public Employee Retirement System. There are 223 local plans affiliated with FPPA as of December 31, 2016. These plans are for the benefit of two distinct groups: 1) fire and police employees of affiliated employers hired prior to April 8, 1978 (Old Hires) and 2) volunteer firefighters of affiliated plans. The Old Hire plans are closed to new entrants as of April 8, 1978. Several volunteer firefighter plans have also chosen to close their plans to new entrants.

The Affiliated Local Plans represent the assets of numerous separate plans that have been pooled for investment purposes. The pension plans (volunteer and paid) represented in the Fire & Police Members' Benefit Investment Fund and the Fire & Police Members' Self-Directed Investment Fund (for Deferred Retirement Option Plan (DROP) assets only) have elected to affiliate with FPPA for plan administration and investment only. Each plan has a separate plan document and actuarial valuation and is governed by its own local pension board which has the authority to amend the plan benefits, such as cost of living increases, funeral benefits, and others as applicable to each plan.

#### 2. Contributions

As each affiliated employer has its own plan, there is no uniform amount for either contributions or benefit provisions. There are no paid employees within the Volunteer Firefighter's pension plans and employees do not contribute to their pension plan. The State of Colorado contributes to some of the Affiliated Local Plan Volunteer Firefighters Pension Plans as defined in the Colorado Revised Statutes. Funding for the Local Old Hire Pension Plans is the sole obligation of the employer.

## 3. Benefit Provisions

The benefits vary with each Old Hire plan. The member's Normal Retirement Date for several plans is based on the date a member has completed years of credited service, usually twenty to twenty-five years. Most plans require the member to complete twenty to twenty-five years of credited service and attain the age of 50 to 55. The annual Normal Retirement Benefit calculation ranges from 50-75 percent of salary. Several plans offer a lump sum actuarial equivalent benefit. Most Old Hire plans offer a 50-100 percent benefit to the surviving spouse until death or remarriage. Some plans also offer actuarially equivalent post-retirement death benefits. Several Old Hire plans offer a cost-of-living increase to their retirees and beneficiaries. Some only offer an ad-hoc cost-of-living increase. Others offer an escalation benefit based on the rank at which the member retired. Several Old Hire plans allow a member to participate in the Deferred Retirement Option Plan (DROP) after reaching eligibility for retirement. A member continues to work while participating in the DROP, but must terminate employment within a given time frame, generally between three to five years of entry into the DROP.

The benefits also vary for each Volunteer Firefighter plan. Volunteer Firefighter plans Normal Retirement Date is at age

50 with 20 years of service. The plans vary and offer a flat dollar benefit from \$0 - \$1,400 per month. Some volunteer firefighter plans offer a 50 percent benefit to the surviving spouse until death or remarriage. Volunteer Firefighter plans are restricted by statute and cannot offer a cost-of-living increase.

#### 4. Membership

The memberships of these groups as of December 31, 2016, are as follows:

Deferred Retirement Option Plan (DROP) Old Hire Members	4
Retirees and Beneficiaries Currently Receiving Benefits	6,639
Terminated Vested Members Entitled To Benefits But Not Yet Receiving Them	259
Old Hire Members Fully Vested	3
Volunteer Firefighter Members	2,815
Total Members	9,720

#### B. Defined Benefit System - Statewide Defined Benefit Plan

#### 1. Plan Description

The Plan is a cost-sharing multiple-employer defined benefit pension plan covering substantially all full-time employees of participating fire or police departments in Colorado hired on or after April 8, 1978 (New Hires), provided that they are not already covered by a statutorily exempt plan. As of August 1, 2003, the Plan may include clerical and other personnel from fire districts whose services are auxiliary to fire protection. The Plan became effective January 1, 1980 and currently has 216 participating employer fire and police departments.

Employers once had the option to elect to withdraw from the Plan, but a change in state statutes permitted no further withdrawals after January 1, 1988.

The Plan assets are included in the Fire & Police Members' Benefit Investment Fund and the Fire & Police Members' Self-Directed Investment Fund (for Deferred Retirement Option Plan (DROP) assets and Separate Retirement Account assets from eligible retired members).

#### 2. Contributions

The Plan sets contribution rates at a level that enables all benefits to be fully funded at the retirement date of all members. Contribution rates for this Plan are set by state statute. Employer contribution rates can only be amended by state statute. Member contribution rates can be amended by state statute or by election of the membership.

Members of this Plan and their employers are contributing at the rate of 9.0 percent and 8.0 percent of base salary, respectively, for a total contribution rate of 17.0 percent in 2016. In 2014, the members elected to increase the member contribution rate to the Plan beginning in 2015. Member contribution rates will increase 0.5 percent annually through 2022 to a total of 12.0 percent of base salary. Employer contributions will remain at 8.0 percent resulting in a combined contribution rate of 20.0 percent in 2022.

Contributions from members and employers of plans re-entering the system are established by resolution and approved by the FPPA Board of Directors. The reentry group has a combined contribution rate of 21.0 percent of base salary in 2016. It is a local decision on who pays the additional 4.0 percent contribution. Per the 2014 member election, the reentry group will also have their required member contribution rate increase 0.5 percent annually beginning in 2016 through 2022 for a total combined member and employer contribution rate of 24.0 percent.

The contribution rate for members and employers of affiliated social security employers is 4.5 percent and 4.0 percent of base salary, respectively, for a total contribution rate of 8.5 percent in 2016. Per the 2014 member election, the affiliated social security group will also have their required member contribution rate increase 0.25 percent annually beginning in 2016 through 2022 to a total of 6.0 percent of base salary. Employer contributions will remain at 4.0 percent resulting in a combined contribution rate of 10.0 percent in 2022.

#### 3. Benefits

On May 23, 1983, the Colorado Revised Statutes were amended to allow the Trustees of the Plan to change the retirement age on an annual basis, depending upon the results of the actuarial valuation and other circumstances. The amended statutes state that retirement age should not be less than age 55 or more than age 60. The Trustees subsequently elected to amend the retirement provisions, effective July 1, 1983, such that any member with at least 25 years of service may retire at any time after age 55 and shall be eligible for a normal retirement pension.

The annual normal retirement benefit is 2.0 percent of the average of the member's highest three years' base salary for each year of credited service up to ten years, plus 2.5 percent for each year of service thereafter. The benefit earned prior to January 1, 2007 for members of affiliated Social Security employers will be reduced by the amount of Social Security income payable to the member annually. Effective January 1, 2007, members currently covered under Social Security will receive half the benefit when compared to the Statewide Defined Benefit Plan. Benefits paid to retired members are evaluated and may be re-determined every October 1. The amount of any increase is based on the Board's discretion and can range from 0 to the higher of 3 percent or the Consumer Price Index.

In addition, upon retirement a member may receive additional benefits credited to the member's "Separate Retirement Account" each year after January 1, 1988. These are attributable to contributions in excess of the actuarially determined pension cost and the allocation of the net Fire & Police Members' Benefit Investment Fund earnings and losses thereon. Members do not vest in amounts credited to their Separate Retirement Account until retirement, and the Plan may use such stabilization reserve amounts to reduce pension cost in the event such cost exceeds contributions. It was previously mentioned that reentry members have a higher contribution rate. As a result their Separate Retirement Account (SRA) has two components; the standard SRA and the reentry SRA. The component of a member's SRA attributable to the higher contribution rate is considered the reentry SRA. The reentry SRA cannot be used to subsidize the costs for the non-reentry members. Effective July 1, 2016, the standard Separate Retirement Account contribution rate for members of the Statewide Defined Benefit Plan was set at 0 percent. The reentry Separate Retirement Account contribution rate was set at 3.70 percent.

A member is eligible for an early retirement at age 50 or after 30 years of service. The early retirement benefit equals the normal retirement benefit reduced on an actuarially equivalent basis. Upon termination, an employee may elect to have member contributions, along with 5.0 percent as interest, returned as a lump sum distribution. Alternatively, a member with at least five years of accredited service may leave contributions with the Plan and remain eligible for a retirement pension at age 55 equal to 2.0 percent of the member's average highest three years' base salary for each year of credited service up to ten years, plus 2.5 percent for each year of service thereafter.

### 4. Membership

The participating employees (members) of the Plan as of December 31, 2016, are as follows:

Retirees and Beneficiaries Receiving Benefits	1,220
Terminated Members Entitled to Benefits But Not Yet Receiving Such Benefits	716
Deferred Retirement Option Plan (DROP) Members	304
Fully Vested Members	391
Partially Vested Members	4,128
Non-Vested Members	2,381
Total Members	9,140

## C. Defined Benefit System – Statewide Hybrid Plan

# 1. Plan Description

The Plan was established January 1, 2004 as a cost-sharing multiple-employer pension plan covering full-time firefighters and police officers from departments that elect coverage. The Plan may also cover clerical staff or other fire district personnel whose services are auxiliary to fire protection. The Plan is comprised of two components: Defined Benefit and Money Purchase. With the latter component, employees have the option of choosing among various mutual funds offered by an outside investment manager. The Plan currently has 37 participating employer departments.

Employers may not withdraw from the Plan once affiliated. The Plan assets associated with the Defined Benefit component are included in the Fire & Police Members' Benefit Investment Fund and the Plan assets associated with the Money Purchase component and Deferred Retirement Option Plan (DROP) assets are included in the Fire & Police Members' Self-Directed Investment Fund.

#### 2. Contributions

The Plan sets contribution rates at a level that enables all benefits to be fully funded at the retirement date of all members. The members of this Plan and their employers are currently each contributing at the rate determined by the individual employer, however, the rate for both employer and members must be at least 8 percent of the member's base salary. The amount allocated to the Defined Benefit Component is set annually by the Fire & Police Pension Association Board of Directors. Excess contributions fund the Money Purchase Component of the Plan. The Defined Benefit Component contribution rate from July 1, 2016 through June 30, 2017 is 13.5 percent. The Defined Benefit Component contribution rate from July 1, 2015 through June 30, 2016 was 12.6 percent.

Within the Money Purchase Component, members are always fully vested in their own contributions, as well as the earnings on those contributions. Vesting in the employer's contributions within the Money Purchase Component, and earnings on those contributions occurs according to the vesting schedule set by the plan document at 20.0 percent per year after the first year of service to be 100 percent vested after 5 years of service. Employer and member contributions are invested in funds at the discretion of members.

A member may elect to make voluntary after-tax contributions to the Money Purchase Component of the Plan.

#### 3. Benefits

The Plan document states that any member may retire from further service and become eligible for a normal retirement pension at any time after age 55, if the member has at least 25 years of service.

The annual normal pension of the Defined Benefit Component is 1.5 percent of the average of the member's highest three years' base salary for each year of credited service. Benefits paid to retired members of the Defined Benefit Component are evaluated and may be re-determined annually on October 1. The amount of any increase is based on the Board's discretion and can range from 0.0 to 3.0 percent.

A member is eligible for early retirement at age 50 or after of 30 years of service. The early retirement benefit equals the normal retirement benefit reduced on an actuarially equivalent basis. Upon termination, a member may elect to have all contributions, along with 5.0 percent as interest, returned as a lump sum distribution from the Defined Benefit Component. Alternatively, a member with at least five years of accredited service may leave contributions with the Defined Benefit Component of the Plan and remain eligible for a retirement pension at age 55 equal to 1.5 percent of the average of the member's highest three years' base salary for each year of credited service. In addition, upon termination, the vested account balance within the Money Purchase Component becomes available to the member.

### 4. Membership

The participating employees (members) of the Plan – Defined Benefit Component and Money Purchase Only Component as of December 31, 2016, are as follows:

Defined Benefit Component: Retirees and Beneficiaries Receiving Benefits	37
Defined Benefit Component: Terminated Members Entitled to Benefit But Not Yet Receiving Such Benefits	23
Money Purchase Component: Retirees and Beneficiaries Receiving Benefits and Terminated Members Entitled to Benefits But Not Yet Receiving Such Benefits	174
Deferred Retirement Option Plan (DROP) Members	7
Fully Vested Member	48
Partially Vested Members	251
Non-Vested Members	24
Total Members	564

### D. Defined Benefit System - Colorado Springs New Hire Pension Plan

### 1. Plan Description

Two plans from the City of Colorado Springs joined the Fire & Police Pension Association Defined Benefit System as of October 1, 2006. They are now one single-employer defined benefit plan, but with a fire component and a police component for fire and police employees hired by the City of Colorado Springs on or after April 8, 1978 but prior to October 1, 2006. The plan is closed to new members as of October 1, 2006.

Employers may not withdraw from the Fire & Police Pension Association Defined Benefit System once elected. The Plan has had several elections since 2006 to allow members to consider transferring to the Fire & Police Pension Association Defined Benefit System - Statewide Defined Benefit Plan. The Plan assets are included in the Fire & Police Members' Benefit Investment Fund and the Fire & Police Members' Self-Directed Investment Fund (for Deferred Retirement Option Plan (DROP) assets and Separate Retirement Account assets from eligible retired members).

### 2. Contributions

The Plan sets contribution rates at a level that enables all benefits to be fully funded at the retirement date of all members within each component as determined by the actuarial study. Effective January 1, 2016, the Fire Component actuarially determined contribution is \$4,522,810. Of this amount the members of the Plan contribute 10 percent of basic salary and the employer remitted the remainder. Effective January 1, 2017, the Fire Component actuarially determined contribution is \$5,132,890. For the Police Component, the actuarially determined contribution for 2016 was \$9,645,675. Of this amount the members of the plan contributed 8 percent of basic salary and the employer remitted the remainder. Effective January 1, 2017, the actuarially determined contribution is \$10,368,391.

### 3. Benefits

### Police Component

The Plan document states that any member may retire and be eligible for a normal retirement pension at any time after age 50, if the member has at least 25 years of service.

The annual normal pension equals 2.0 percent of the member's final average salary (past 39 payroll periods) for each full year of credited service up to ten years plus 2.75 percent for each full year thereafter with a maximum benefit of 75 percent. Cost-of-living-adjustments begin on October 1 immediately before the retiree turns 60, or 10 years after benefits payment commence, whichever is earlier. The amount of the cost-of-living adjustment cannot exceed 3.0 percent per year subject to limitations linked to the consumer price index.

In addition, upon retirement a member may receive additional benefits credited to the member's Separate Retirement Account. These are attributable to contributions in excess of the actuarially determined pension cost and any earnings or losses thereon. Members do not vest in amounts credited to their account until retirement and the Plan may use such

stabilization reserve amounts to reduce pension cost in the event such cost exceeds contributions. Effective January 1, 2016, the Separate Retirement Account contribution rate for members of the Police Component was set at 0 percent. This rate will remain the same for calendar year 2017.

A member is eligible for an early retirement benefit after completion of 20 years of service and attainment of age 45. The early retirement benefit is reduced by 7.5 percent for each year that the member is less than age 50.

Upon termination, a member may elect to have all contributions, along with 5 percent per annum, as interest, returned as a lump sum distribution. Alternatively, a member with at least 10 years of accredited service may leave contributions with the Plan and remain eligible for a retirement pension at age 50 equal to 2.0 percent of the member's final average salary (past 39 payroll periods) for each full year of credited service up to ten years plus 2.75 percent for each full year thereafter with a maximum benefit of 75 percent.

#### Fire Component

The Plan document states that any member may retire and become eligible for a normal retirement pension at any time after age 55, if the member has at least 25 years of service.

The annual normal pension is 2.0 percent of the member's final average salary (past 39 payroll periods) for each full year of credited service up to ten years plus 2.85 percent for each full year thereafter with a maximum benefit of 77 percent. Cost-of-living-adjustments begin on October 1 immediately before the retired firefighter turns 65 or 10 years after benefits payment commence, whichever is earlier. The amount of the cost-of-living adjustment cannot exceed 3.0 percent per year subject to limitations linked to the consumer price index.

In addition, upon retirement a member may receive additional benefits credited to the member's Separate Retirement Account. These are attributable to contributions in excess of the actuarially determined pension cost and any earnings or losses thereon. Members do not vest in amounts credited to their account until retirement and the Plan may use such stabilization reserve amounts to reduce pension cost in the event such cost exceeds contributions. Effective January 1, 2016, the Separate Retirement Account contribution rate for members of the Fire Component was set at 0 percent. This rate will remain the same for calendar year 2017.

A member is eligible for an early retirement benefit at age 50 and after completion of 20 years of service. The early retirement benefit is reduced by 4.615 percent for each year that the member is less than age 55.

Upon termination, a member may elect to have all contributions, along with 5 percent per annum, as interest, returned as a lump sum distribution. Alternatively, a member with at least 10 years of accredited service may leave contributions with the Plan and remain eligible for a retirement pension at age 55 equal to 2.0 percent of the member's final average salary (past 39 payroll periods) for each full year of credited service up to ten years plus 2.85 percent for each full year thereafter with a maximum benefit of 77 percent.

## 4. Membership

The participating employees (members) of the Plan as of December 31, 2016, are as follows:

Retirees and Beneficiaries Receiving Benefits	381
Terminated Members Entitled to Benefits But Not Yet Receiving Such Benefits	12
Deferred Retirement Option Plan (DROP) Members	80
Fully Vested Members	45
Partially Vested Members	383
Non-Vested Members	0
Total Members	901

## E. Fire & Police Members' Statewide Money Purchase Plan

#### 1. Plan Description

The Plan is a multiple-employer defined contribution (money purchase) pension fund covering full-time employees of participating fire or police districts in Colorado. As of August 1, 2003, the Plan may include part-time police and fire employees. The Plan may also include clerical or other personnel from fire districts whose services are auxiliary to fire protection.

The Fire & Police Members' Statewide Money Purchase Plan became effective on January 1, 1995. Participants can choose from various mutual funds selected by the Self-Directed Plans Committee pursuant to the fund structure approved by the Board of Directors, as well as mutual funds or other investments offered through a Self-Directed Brokerage Account. There were 45 contributing employer departments as of December 31, 2016. The Plan assets are included in the Fire & Police Members' Self-Directed Investment Fund.

### 2. Contributions and Vesting

Contributions to the Plan are calculated as a percentage of the member's base salary, which is specified by state statute. Current participants contribute 8.0 percent of salary, which is matched by the employer. Members are always fully vested in their own contributions, and the earnings on those contributions. Vesting in the employer's contributions and earnings on those contributions occurs according to the vesting schedule set by state statute at 20 percent per year after the first year of service to be 100 percent vested after 5 years of service. Employer and member contributions are invested in funds at the discretion of members.

### 3. Membership

The participating employees (members) of the Plan as of December 31, 2016, are as follows:

Retirees and Beneficiaries Receiving Benefits and Terminated Members Entitled to Benefit But Not Yet Receiving Such Benefits	151
Fully Vested Members	31
Partially Vested Members	68
Non-Vested Members	26
Total Members	276

### F. Self-Directed Assets for the Affiliated Local and Defined Benefit System Plans

# 1. Plan Description

These defined contribution accounts consist of the assets of plans where members control their account by choosing from various mutual fund options selected by the Self-Directed Plans Committee pursuant to the fund structure approved by the Board of Directors, as well as mutual funds or other investments offered through a Self-Directed Brokerage Account. The members in this group are in the defined benefit plans described above within Note 1.

The Deferred Retirement Option Plan (DROP) assets which fund a supplemental benefit within the Local Old Hire and Defined Benefit System Plans are included in the Fire & Police Members' Self-Directed Investment Fund. In general, the DROP program allows a member to elect to participate in the supplemental benefit after reaching eligibility for normal retirement (and in some cases, early or vested retirement). A member can continue to work while participating in the DROP, but must terminate employment within 5 years of entry into the DROP. The member's percentage of retirement benefit is frozen at the time of entry into the DROP. The monthly payments that begin at entry into the DROP are accumulated until the member terminates service, at which time the DROP accumulated benefits can be paid as a lump sum, if desired.

Also included is the money purchase component for the Defined Benefit System – Statewide Hybrid Plan. The Plan is described above in Note 1, Section C.

The Separate Retirement Account assets from eligible Defined Benefit System retired members are included in the Fire & Police Members' Self-Directed Investment Fund. The benefits are described above in Note 1, Sections B and D.

### 2. Contributions and Vesting

Within the DROP programs, the member continues contributing at the rate described in each plan, which is credited to the DROP. The member is vested 100 percent in their DROP account. Total DROP assets are \$98,594,329 as of December 31, 2016.

The Defined Benefit System – Statewide Hybrid Plan contributions and vesting are described above in Note 1, Section C.

The Separate Retirement Accounts within the Defined Benefit System are described above in Note 1, Section B and D.

#### 3. Membership

Membership is listed within the defined benefit plans described above in Note 1.

# NOTE 2 | SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

### A. Basis of Accounting

FPPA follows the accounting principles and reporting guidelines as set forth by the Governmental Accounting Standards Board. The financial statements are prepared using the accrual basis of accounting and reflect the overall operations of FPPA. Member and employer contributions are recognized in the period in which the contributions are due, and benefits and refunds are recognized when payable in accordance with the terms of each plan.

## B. Reporting Entity

The Governmental Accounting Standards Board has specified the criteria that define a governmental entity for financial reporting purposes. FPPA has considered the possibility of inclusion of additional entities in its comprehensive annual financial report. The definition of the reporting entity is based primarily on financial accountability.

FPPA would be financially accountable for an outside entity if it appointed a voting majority of the organization's governing body and could impose its will on that organization. The same would hold true if FPPA might potentially accrue benefits or incur specific financial burdens on FPPA from an outside entity. Finally, FPPA may be financially accountable for governmental organizations that are fiscally dependent upon it.

Based upon the application of the above criteria, FPPA has no includable entities. In addition, FPPA is not included in the financial statements of any other entity.

### C. Investments and Investment Income & Expenses

FPPA adopted Governmental Accounting Standards Board (GASB) Statement No. 72, Fair Value Measurement and Application for the year ended December 31, 2016. This statement addresses accounting and financial reporting related to fair value measurements of assets and liabilities. The guidance provides for expanded information about the assets and liabilities measured at fair value with required disclosures around the hierarchy of inputs in the valuation technique. These footnote disclosures can be found in Note 4, Deposits and Pension Plan Investments.

Investments are carried at fair value using quoted market prices, with the following exceptions:

1. Private fund investments are recorded at estimated fair value based on valuation of the underlying investments as reported by the general partner via the most recent capital account statements. Reported management fees for private fund investments do not include performance fees, which can generally range from 10-20 percent of a fund's earnings. Performance fees are in the nature of a profit-sharing arrangement and are not considered by management to be a pension expense. FPPA will analyze public market performance and utilize discussions with the general partners to approximate an aggregate change in year-end valuations of its private fund investments. The aggregate change in valuations applied to the 2016 financial statements was a positive \$11,658,511.

2. Hedge funds are valued based upon net asset values provided by each hedge fund's third-party administrator. Reported management fees for hedge funds do not include performance fees, which can generally range from 10-20 percent of a fund's earnings. Performance fees are in the nature of a profit-sharing arrangement and are not considered by management to be a pension expense.

Within the Fire & Police Members' Self-Directed Investment Fund, fair value of the Stable Value Funds are determined by the Investment Manager of the Fund and are based on the contract value of the investment adjusted for interest earned and accrued expenses.

Investment transactions are accounted for on the trade date.

Short term investments refer to all investments with a maturity of less than one year, including short term investment funds, repurchase agreements, commercial paper, certificates of deposit, treasury bills, and government agency issues.

Dividend income is recorded on the ex-dividend date. Interest income is accounted for using the accrual method of accounting.

Expenses directly associated with investment management, operations and servicing have been included as 'FPPA Investment Personnel Services' in the Statement of Changes in Fiduciary Net Position. The Schedule of Administrative and Investment Expenses provides a listing of investment expenses by type.

### D. Cash and Short Term Investments

Cash and short term investments consist of money market funds, cash and cash equivalents held by money managers, certificates of deposit, short term fixed income securities with maturity of 12 months or less, and demand deposits.

### E. Property and Equipment

FPPA has a \$5,000 capitalization threshold for tangible assets. The capitalization threshold for intangible assets, specifically internal use computer software, is \$100,000. Property and equipment are stated at cost, less any write-downs for impairment in value, and are depreciated/amortized using the straight-line method over estimated lives as follows:

Computer and Office Equipment	3 - 5 years
Vehicles	5 years
Furniture	10 years
Building and Improvements	5 - 30 years
Tenant Improvements	life of lease
Internal Use Computer Software	7 years

# F. Income Taxes

FPPA is exempt from federal income taxes under Section 115 of the Internal Revenue Code.

#### G. Refunds

For defined benefit plans, refunds represent a return of member or employer contributions from the plan. For defined benefit system members, refunds are lump sum distributions to terminated members of their member contributions plus interest, as described above in Note 1. For Affiliated Local Plans, refunds are directed by the local plan board as payments to reimburse the employer or made on behalf of an employer as payment of plan related expenses.

For defined contribution plans, refunds represent distributions to members equal to all or a portion of their member account balances comprised of member and employer contributions and investment earnings or losses.

## H. FPPA Employee Retirement Plan

FPPA participates in the State Division Trust Fund, a cost-sharing multiple-employer defined benefit pension fund administered by the Public Employees' Retirement Association of Colorado. The net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, pension expense, information about the fiduciary net position and additions to/deductions from the fiduciary net position of the SDTF have been determined using the economic resources measurement focus and the accrual basis of accounting. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

#### I. Estimates

The preparation of the financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from these estimates. Actuarially determined future benefit payments require the use of significant estimates. FPPA believes that the techniques and assumptions used in establishing these estimates are appropriate.

### J. Allocation

Expenses and investments are allocated to each Plan according to its proportionate share of total assets. If an expense is determined to be attributable to one particular or several different Plans, then that expense is allocated only to those attributable Plans, rather than being allocated to all Plans as described above. In the current year, Plan administration costs are included in the Net Increase in Fiduciary Net Position Available of the Fire & Police Members' Benefit Investment Fund.

### K. New Accounting Pronouncements

In June 2015, the GASB issued Statement No. 74, Financial Reporting for Postemployment Benefits Other Than Pension Plans. The statement establishes new accounting and financial reporting requirements for governments whose employees are provided with other post-employment benefits (OPEB), as well as for certain nonemployer governments that have a legal obligation to provide financial support for OPEB provided to the employees of other entities. This standard is effective for financial statements for fiscal years beginning after June 15, 2016. Management is evaluating the impact of this new statement as it relates to the Statewide Death & Disability Plan and the FPPA Staff Healthcare Subsidy Plan.

In June 2015, the GASB issued Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions. The statement addresses accounting and financial reporting for other post-employment benefits that are provided to the employees of state and local governmental employers. Statement No. 75 establishes standards for recognizing and measuring liabilities, deferred outflows of resources, deferred inflows of resources, and expenses related to OPEB in the basic financial statements, in addition to requiring more extensive note disclosures and required supplementary information. This standard is effective for financial statements for fiscal years beginning after June 15, 2017. Management is evaluating the impact of the new standard to assist employers in the Statewide Death & Disability Plan with implementation and anticipates the related communications with participating employers will require significant effort.

In March 2016, the GASB issued Statement No. 82, Pension Issued. This statement addresses certain issues that were raised with respect to GASB Statement No. 67, Financial Reporting for Pension Plans, Statement No. 68, Accounting and Financial Reporting for Pensions, and Statement No. 73. Statement No. 82 addresses issues regarding (1) the presentation of payroll-related measures in required supplementary information, (2) the selection of assumptions and the treatment of deviations from the guidance in an Actuarial Standard of Practice for financial reporting purposes, and (3) the classification of payments made by employers to satisfy employee (plan member) contribution requirements. Management has early adopted this standard with minimal impact to FPPA financial reporting.

## NOTE 3 | NET PENSION LIABILITY FOR COST-SHARING AND SINGLE EMPLOYER PLANS

#### A. Net Pension Liability

Defined Benefit System	Total Pension Liability	Plan Fiduciary Net Position*	Employers' Net Pension Liability (Asset)	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
Statewide Defined Benefit Plan	\$2,013,142,793	\$1,985,393,043	\$27,749,750	98.62%
Statewide Hybrid Plan - Defined Benefit Component	42,589,683	53,087,030	(10,497,347)	124.65%
Colorado Springs New Hire Pension Plan - Fire Component	163,442,191	126,527,898	36,914,293	77.41%
Colorado Springs New Hire Pension Plan - Police Component	336,068,031	277,111,969	58,956,062	82.46%
Total	\$2,555,242,698	\$2,442,119,940	\$113,122,758	95.57%

\*The Plan Fiduciary Net Position used to calculate the Net Pension Liability is the net invested plan assets as of December 31, 2016. It does not include the impact of contributions not received during 2016 and the net pension liability associated with the FPPA Staff participation in the Public Employees' Retirement Association of Colorado pension plan further described in Note 8, FPPA Employee Retirement Plan.

The net pension liability (i.e., the plan's liability determined in accordance with Governmental Accounting Standards Board (GASB) Statement No. 67, Financial Reporting for Pension Plans, less the fiduciary net position) as of December 31, 2016, is shown above. Actuarial valuation of the ongoing plans involves estimates of the reported amounts and assumptions about probability of occurrence of events far into the future. Examples include assumptions about future employment mortality and future salary increases. Amounts determined regarding the net pension liability are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. The last experience study was performed in 2015 and the changes in assumptions are included in the totals presented in table above. The Schedule of Employers' Net Pension Liability presents multi-year trend information about whether the plan fiduciary net positions are increasing or decreasing over time relative to the total pension liability. These schedules are presented in the Required Supplementary Information section. The Total Pension Liability as of December 31, 2016, is based on the results of the most recent actuarial valuation date and rolled-forward using generally accepted actuarial procedures.

## **B.** Summary of Actuarial Assumptions

A summary of the actuarial assumptions as of the latest actuarial valuation is shown below.

## **Defined Benefit System**

Statewide Defined Benefit Plan	Statewide Hybrid Plan - Defined Benefit Component	Colorado Springs New Hire Pension Plan - Fire and Police Components
January 1, 2016	January 1, 2016	January 1, 2016
Entry Age Normal	Entry Age Normal	Entry Age Normal
Level % of Payroll, Open	Level % of Payroll, Open	Level Dollar, Closed
30 Years	30 Years	22 Years, Beginning January 1, 2016
5-Year Smoothed Fair Value	5-Year Smoothed Fair Value	5-Year Smoothed Fair Value
7.50%	7.50%	7.50%
4.0% - 14.0%	4.0% - 14.0%	4.0% - 14.0%
0.00%	0.00%	2.4% (Fire Component) 2.6% (Police Component)
2.50%	2.50%	2.50%
	Benefit Plan  January 1, 2016  Entry Age Normal  Level % of Payroll, Open  30 Years  5-Year Smoothed Fair Value  7.50%  4.0% - 14.0%	Statewide Defined Benefit Component  January 1, 2016  Entry Age Normal  Level % of Payroll, Open  30 Years  5-Year Smoothed Fair Value  7.50%  4.0% - 14.0%  Plan - Defined Benefit Component  Plan - Defined Benefit Component  Plan - Defined Benefit Component  Santa Sundary 1, 2016  Entry Age Normal  Level % of Payroll, Open  So Years  5-Year Smoothed Fair Value  7.50%  4.0% - 14.0%  0.00%

As of January 1, 2016, the post-retirement mortality tables for non-disabled retirees is a blend of the Annuitant and Employee RP-2014 generational mortality tables with blue collar adjustment, projected with Scale BB. The occupationally disabled post-retirement mortality assumption uses the same table as used for healthy annuitants, except there is a three year setforward, meaning a disabled member age 70 will be valued as if they were a 73 year old healthy retiree. The totally disabled post-retirement mortality assumption uses the RP-2014 generational mortality tables for disabled annuitants, except an additional provision to apply a minimum 3 percent mortality probability to males and 2 percent mortality probability for females, is included to reflect substantial impairment for this population. The pre-retirement non-duty mortality tables are adjusted to 55% of the RP-2014 mortality tables for active employees. The on-duty mortality rate is 0.00020.

### C. Target Allocations

Asset Class	Target Allocation	Long Term Expected Rate of Return
Global Equity	36%	9.25%
Equity Long/Short	10%	7.35%
Illiquid Alternatives	23%	10.75%
Fixed Income	15%	4.10%
Absolute Return	10%	6.55%
Managed Futures	4%	5.50%
Cash	2%	2.00%
Total	100%	

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term ex-

pected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the Plans target asset allocation as of December 31, 2016, are summarized in the above table.

The discount rate used to measure the total pension liability was 7.50 percent. The projection of cash flows used to determine the discount rate assumed that contributions from participating employers will be made based on the actuarially determined rates based on the Board's funding policy, which establishes the contractually required rates under Colorado statutes. Based on those assumptions, the Plan fiduciary net position was projected to be available to make all the projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

## D. Changes in Discount Rates

Defined Benefit System	1.00% Decrease *	Current Discount Rate *	1.00% Increase *
Statewide Defined Benefit Plan	\$293,690,563	\$27,749,750	\$(195,153,962)
Statewide Hybrid Plan - Defined Benefit Component	(5,277,745)	(10,497,347)	(14,890,058)
Colorado Springs New Hire Pension Plan - Police Component	59,694,434	36,914,293	18,240,359
Colorado Springs New Hire Pension Plan - Fire Component	109,123,020	58,956,062	18,282,919
Total	\$457,230,272	\$113,122,758	\$(173,520,742)

<sup>\*</sup> Both the long-term rate of return and the resulting single discount rate used were 7.50 percent.

In accordance with GASB Statement No. 67 regarding the disclosure of the sensitivity of the net pension liability to changes in the discount rate, the above table presents the net pension liability of the participating employers calculated using the discount rate of 7.50 percent, as well as what the employers' net pension liability would be if it were calculated using a discount rate that is 1.00 percent lower (6.50 percent) or 1.00 percent higher (8.50 percent) than the current rate.

## NOTE 4 | DEPOSITS AND PENSION PLAN INVESTMENTS

Under Colorado statutes, FPPA, as trustee of the Fire & Police Members' Benefit Investment Fund, has complete discretionary authority to invest and reinvest funds of the Fire & Police Members' Benefit Investment Fund, subject to the prudent investor rule.

FPPA has established a statement of investment objectives and policies for managing and monitoring the Fire & Police Members' Benefit Investment Fund. The investment objective for the Fire & Police Members' Benefit Investment Fund is to balance and prudently manage the investment needs (risk and return) of all plans participating in the Fund.

The investment policy also defines the fiduciaries' responsibilities with respect to the Fire & Police Members' Benefit Investment Fund, their investment authority under the prudent investor rule, the level of acceptable risk for investments, statutory asset allocation restrictions, investment performance objectives, and guidelines within which outside investment managers may operate.

FPPA utilizes an asset liability study as its primary process to establish the overall risk tolerance for the Fund. In establishing Investment Allocation Policy Targets, the Board considers the historical and expected risks and correlations of investment classes in creating a portfolio which reduces risk through investment diversification. The Board conducts a formal asset liability study and investment allocation review on an annual basis.

The Board establishes and continually updates interim investment allocation targets. Beginning in February 2016, the following investment allocation targets were in effect: global equity, 36 percent; equity long/short, 10 percent; fixed income and cash, 17 percent; absolute return, 10 percent; managed futures, 4 percent; and illiquid alternatives, 23 percent. At the end 2015 and through February 2016, the following interim investment allocation targets were in effect: global equity, 37 percent; equity long/short, 10 percent; fixed income and cash, 18 percent; absolute return, 11 percent; managed futures, 4 percent; and illiquid alternatives, 20 percent. There were no significant investment policy changes in 2016 other than the above changes in allocation targets.

### A. Cash Deposits and Short Term Investments

Cash deposits and short term investments represent both operating cash accounts held by banks and investment cash on deposit with the investment custodian. FPPA considers fixed income securities with a maturity of 12 months or less to be short term investments.

The table below presents FPPA combined total deposits and short term investments as of December 31, 2016.

Deposits with Banks	\$15,973,656
Short Term Investments (maturity of 12 months or less)	209,771,140
Total Deposits and Short Term Investments	\$225,744,796

### B. Pension Plan Investments

The assets of the Fire & Police Members' Self-Directed Investment Fund are invested in commingled mutual fund investment vehicles. These investments at December 31, 2016 are summarized in the following table:

Total Investments  Total Cash and Investments	\$374,819,565 <b>\$374,981,554</b>
Brokeragelink Funds	58,096,075
Money Market & Stable Value Funds	35,638,775
Fixed Income Funds	20,650,694
Balanced Funds	154,941,810
International Equity Funds	15,390,927
Domestic Equity Funds	\$90,101,284
Investments	
Cash and Short Term Investments	\$161,989

The investments reflected on the Statement of Fiduciary Net Position for the Fire & Police Members' Benefit Investment Fund at December 31, 2016 are summarized in the following table:

Cash and Short Term Investments	\$225,582,807
Investments	
Fixed Income	\$760,159,795
Global Equity	1,401,071,123
Equity Long/Short	382,439,478
Real Assets	236,471,123
Real Estate	200,004,785
Absolute Return	383,507,769
Private Capital	570,893,680
Managed Futures	149,710,915
Securities Lending Collateral	77,397,016
Total Investments	\$4,161,655,684
Total Cash and Investments	\$4,387,238,491

The annual money-weighted rate of return for the Fire & Police Members' Benefit Investment Fund was 5.5 percent for 2016. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

### C. Fair Value Measurement

The Funds categorize their fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset and give the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (level 1 measurements) and the lowest priority to unobservable inputs (level 3 measurements).

- Level 1 Unadjusted quoted prices for identical instruments in active markets.
- **Level 2** Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs are observable.
- Level 3 Valuations derived from valuation techniques in which significant inputs are unobservable.

Investments that are measured at fair value using the net asset value per share (or its equivalent) as a practical expedient are not classified in the fair value hierarchy.

The categorization of investments within the hierarchy is based upon the pricing transparency of the instrument and should not be perceived as the particular investment's risk.

In instances where inputs used to measure fair value fall into different levels in the fair value hierarchy, fair value measurements in their entirety are categorized based on the lowest level input that is significant to the valuation. The Funds assessment of the significance of particular inputs to these fair value measurements requires judgment and considers factors specific to each asset or liability. The table below shows the fair value leveling of the investments for the Funds.

	Fair Value Measures Using			
	Fair Value as of 12/31/2016	Quoted Prices in Active Markets Using Level 1	Significant Other Observable Inputs Level 2	Significant Unobservable Inputs Level 3
Fire & Police Members' Benefit Investment Fo		Coming Level !		
Investments Measured by Fair Value Level				
<u> </u>				
ASSETS				
Short-Term Securities				
Short-Term	\$33,305,824		\$33,305,824	
STIF	150,533,366	\$150,533,366		
Total Short-Term Securities	\$183,839,190	\$150,533,366	\$33,305,824	
Global Equity				
U.S. Common Stocks	\$655,865,176	\$655,865,176		
Foreign Stocks	527,859,148	527,859,148		
Preferred Stocks	1,743,732	1,743,732		
Total Global Equity	\$1,185,468,056	\$1,185,468,056		
Fixed Income				
Asset Backed Securities	\$11,798,163		\$11,798,163	
Corporate Bonds	102,931,243		102,931,243	
Government & Agency	171,062,914	\$169,195,432	1,867,482	
Mortgages-Agency	4,722,162		4,722,162	
Mortgages-Non-Agency	9,039,682		9,039,682	
International Bonds	34,539,592		34,539,592	
Revenue Bonds	5,583,909		5,583,909	
TIPS	6,466,830	6,466,830		
Private Placements	90,132,001		88,269,834	\$1,862,167
Preferred Stock	6,225,181	3,055,015	3,170,166	
Total Fixed Income	\$442,501,677	\$178,717,277	\$261,922,233	\$1,862,167
Private Capital	, ,- ,-	, ,	, , ,	. , ,
U.S. Common Stocks	\$111	\$111		
Total Private Capital	\$111	\$111		
Total Investment Assets	\$1,811,809,034	\$1,514,718,810	\$295,228,057	\$1,862,167
	4 ./6/662/65 .	4 1,5 1 1,7 1 5,6 1 5	4200/220/007	ţ :/cc=/:c/
LIABILITIES				
Derivative Investments	Ć(02.4.0E4)	¢(024.051)		
Futures Contracts	\$(834,951)	\$(834,951)	0.000	
Options Contracts	8,022		8,022	
Foreign Exchange Forward Contracts	2,722,648	2,722,648		
Swaps	(1,743,019)		(1,743,019)	
Total Derivative Investments	\$152,700	\$1,887,697	\$(1,734,997)	
Total Investment Liabilities	\$152,700	\$1,887,697	\$(1,734,997)	
<b>INVESTED SECURITIES LENDING COLLATER</b>	AL			
Asset Backed Securities	\$233,203		\$233,203	
Repurchase Agreement	77,163,813		77,163,813	
Total Invested Securities Lending Collateral	\$77,397,016		\$77,397,016	
INVESTMENTS MEASURED AT THE NET ASSET			4.2/55//010	
Commingled Global Equity	\$214,341,163			
Commingled Global Equity  Commingled Fixed Income				
Absolute Return	318,767,322 383,507,769			
Equity Long/Short	382,439,478			
Managed Futures	149,710,915			
Private Capital	570,893,569			
Real Assets	236,471,123			
Real Estate	200,004,785			
Total Investments Measured at the NAV	\$2,456,136,124			
OTHER INVESTMENTS				
Cash	\$41,743,617			
Total Other Investments	\$41,743,617			
TOTAL INVESTMENTS AT FAIR VALUE	£4 207 220 404	£1 F1F C0C F07	6270.000.076	£1.000.100
TOTAL INVESTMENTS AT FAIR VALUE	\$4,387,238,491	\$1,515,606,507	\$370,890,076	\$1,862,167

	Fair Value Measures Using			
	Fair Value as of 12/31/2016	Quoted Prices in Active Markets Using Level 1	Significant Other Observable Inputs Level 2	Significant Unobservable Inputs Level 3
Fire & Police Members' Self-Directed Investme	nt Fund			
Investments Measured by Fair Value Level				
ASSETS				
U.S. Common Stocks	\$32,215,082	\$32,215,082		
Preferred Stocks	7,560	7,560		
Rights/Warrants	165	165		
Total Global Equity	\$32,222,807	\$32,222,807		
Fixed Income				
Corporate Bonds	\$36,832		\$36,832	
Revenue Bonds	218,560		218,560	
Total Fixed Income	\$255,392		\$255,392	
Total Investment Assets	\$32,478,199	\$32,222,807	\$255,392	
LIABILITIES				
Derivative Investments				
Options Contracts	\$(6,630)		\$(6,630)	
Total Derivative Investments	\$(6,630)		\$(6,630)	
Total Investment Liabilities	\$(6,630)		\$(6,630)	
Total Investments Measured by Fair Value Level	\$32,471,569	\$32,222,807	\$248,762	
INVESTMENTS MEASURED AT THE NET ASSET	VALUE (NAV)			
Domestic Equity Funds	\$90,101,284			
International Equity Funds	15,390,927			
Balanced Funds	154,941,810			
Fixed Income Funds	20,650,694			
Money Market & Stable Value Funds	35,638,775			
Brokeragelink Funds	25,624,506			
Total Investments Measured at the NAV	\$342,347,996			
OTHER INVESTMENTS				
Cash	\$161,989			
Total Other Investments	\$161,989			
			****	
TOTAL INVESTMENTS MEASURED AT FAIR VALUE	\$374,981,554	\$32,222,807	\$248,762	

Fire & Police Members' Benefit Investment Fund	Fair Value as of 12/31/2016	Unfunded Commitments	Redemption Frequency (If Currently Eligible)	Redemption Notice Period (Days)
Commingled Global Equity	\$214,341,163		Daily, Monthly	1-30
Commingled Fixed Income <sup>2</sup>	318,767,322		Daily, Monthly	3-30
Absolute Return				
Alternative Beta <sup>3</sup>	88,396,759		Bi-weekly, Monthly	15-30
Long Short <sup>4</sup>	28,458,678		Quarterly	60
Global Macro	144,027,547		Monthly, Quarterly	30-60
Opportunistic <sup>6</sup>	20,128,720		Quarterly	45
Multi-Strategy <sup>7</sup>	102,496,065		Quarterly	65-90
Equity Long/Short				
Activist <sup>8</sup>	49,515,408		Quarterly	65
Event Driven <sup>9</sup>	63,823,680		Quarterly, Two Year	60-90
Long Short <sup>10</sup>	269,100,390		Quarterly, Annual	45-90
Managed Futures				
Alternative Beta	74,599,491		Daily, Weekly	1-3
Hedge Fund <sup>12</sup>	75,111,424		Monthly	30
Private Capital	570,893,569	\$332,967,271	Not Eligible	
Real Assets	236,471,123	161,426,570	Not Eligible	
Real Estate	200,004,785	38,658,867	Not Eligible	
Total Investments Measured at the NAV	\$2,456,136,124	\$533,052,708		
Fire & Police Members' Self-Directed Investment Fund				
Domestic Equity Funds <sup>14</sup>	\$90,101,284		Daily	None
International Equity Funds <sup>15</sup>	15,390,927		Daily	None
Balanced Funds <sup>16</sup>	154,941,810		Daily	None
Fixed Income Funds <sup>17</sup>	20,650,694		Daily	None
Money Market & Stable Value Funds <sup>18</sup>	35,638,775		Daily	None
Brokeragelink Funds <sup>19</sup>	25,624,506		Daily	None
Total Investments Measured at the NAV	\$342,347,996			

# Fire & Police Members' Benefit Investment Fund

- Commingled Global Equity Consisting of four funds. These funds target diversified geographic and capitalization exposure to global equity markets. Three funds are dedicated emerging markets equity strategies. One fund is a dedicated MLP strategy.
- Commingled Fixed Income Consisting of two funds. These funds target stable returns and income across broad US and global bond markets. One fund is an aggregation of passive fixed income exposures. One fund is dedicated to private placements.
- Alternative Beta Consisting of two funds. These funds target systematic exposure to broad hedge fund strategies and style risk premia.
- <sup>4</sup> Long Short Consisting of one fund. This fund will maintain both long and short exposures within the equity markets.
- <sup>5</sup> Global Macro Consisting of four funds. These strategies maintain systematic or discretionary exposure to the equity, fixed income, commodity and currency markets

- 6 Opportunistic Consisting of one fund. This fund is a dedicated merger arbitrage strategy.
- 7 Multi-Strategy Consisting of two funds. These funds target a relative value approach in actively allocating to various hedge fund strategies...
- 8 Activist Consisting of two funds. These funds target undervalued companies where the investment manager can act as a catalyst for change.
- <sup>9</sup> Event Driven Consisting of two funds. These funds target companies with an impending catalyst for revaluation.
- 10 Long Short Consisting of six funds. These funds will maintain both long and short exposures within the equity markets.
- <sup>11</sup> **Alternative Beta** Consisting of two funds. These funds target systematic exposure to trend following strategies in securities markets.
- <sup>12</sup> Hedge Fund Consisting of two funds. These funds target active exposure to trend following strategies in securities
- <sup>13</sup> Private Capital, Real Assets and Real Estate Private Capital consisting of 78 funds with exposure to buyout funds, venture capital and special situations. Real Assets is comprised of 18 funds with exposure to energy, lending and diversified assets. Real Estate is comprised of 13 funds with invests in U.S. and global real estate.

#### Fire & Police Members' Self-Directed Investment Fund

- <sup>14</sup> Domestic Equity Funds Consisting of seven funds. These funds target diversified geographic and capitalization exposure to US equity markets.
- 15 International Equity Funds Consisting of five funds. These funds target diversified geographic and capitalization exposure to Non-US equity markets. One fund is dedicated to emerging markets.
- <sup>16</sup> Balanced Funds Consisting of twelve funds. These target date funds provide diversified global exposure to equity and fixed income strategies appropriate for a participant's retirement age.
- <sup>17</sup> Fixed Income Funds Consisting of four funds. These funds target stable returns and income across broad US and global bond markets. One fund is a dedicated high yield strategy.
- <sup>18</sup> Money Market & Stable Value Funds Consisting of two funds. These funds target stable cash returns.
- <sup>19</sup> Brokeragelink Funds Consisting of several funds. These funds may include various strategies as chosen by the participant.

# D. Investment Risk

Investments are exposed to various risks including custodial credit risk, concentration of credit risk, credit risk, interest rate risk, and foreign currency risk.

### 1. Custodial Credit Risk

FPPA has no formal policy for custodial credit risk for investments. Custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, FPPA would not be able to recover the value of investment or collateral securities that are in possession of an outside party. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in FPPA's name and are held by either counterparty or the counterparty's trust department or agent but not in FPPA's name. Investment-related cash deposits are under the custody of The Bank of New York Mellon which has an AA- long-term senior debt credit rating by Standard & Poor's and an Aa2 rating by Moody's and an AA- rating by Fitch. As of December 31, 2016, FPPA had exposure to cash deposits in the amount of \$225,582,807. The securities lending program is managed by Deutsche Bank. Deutsche Bank has an A longterm senior debt credit rating by Standard & Poor's and an A3 rating by Moody's and an A+ rating by Fitch. Invested collateral within the securities lending program is \$77,397,016. Cash deposits and invested collateral would be exposed to custodial credit risk since these deposits are not collateralized or insured. For the Fire & Police Members' Self-Directed Investment Fund, all assets are in custody with Fidelity Investments. The custodial agent carries no custodial credit risk as all assets are insured and/or collateralized by the securities held by Fidelity Investments in FPPA's name.

### 2. Concentration of Credit Risk

FPPA does not have any investments representing five percent or more of the Fire & Police Members' Benefit Investment Fund assets or the Fire & Police Members' Self-Directed Investment Fund in any single issuer. These funds do have investments representing five percent or more of the respective fund assets with investment manager organizations.

The following table summarized FPPA's investments within the Fire & Police Members' Benefit Investment Fund representing five percent or more with any one organization as of December 31, 2016.

Asset Class Manager	Fair Value	% of Total Fund Assets
SSgA BC Aggregate Bond	\$264,464,564	6.15%

There were no investments greater than 5 percent with any one organization within the Fire & Police Members' Self-Directed Investment Fund.

### 3. Credit Risk

Credit risk is the risk that an issuer of a debt instrument will not fulfill its obligations. Although FPPA does not have a specific policy relating to credit risk, through its Master Statement of Investment Policies and Objectives for the Fund, FPPA has established and monitors specific guidelines regarding the types, exposures and quality of securities within each fixed income portfolio.

The following table summarizes FPPA's fixed income securities credit quality ratings as of December 31, 2016.

	Fixed Income Portfolio			
Credit Quality Rating	Fair Value	% of Portfolio		
Fire & Police Members' Benefit Investment Fund				
Aaa/AAA	\$226,067,315	21.69%		
Aa/AA	44,913,294	4.31%		
A	129,763,560	12.45%		
Baa/BBB	96,269,120	9.24%		
Ba/BB	38,215,848	3.67%		
В	26,923,306	2.58%		
Caa/CCC	3,743,014	0.36%		
Ca/CC	1,236,659	0.12%		
С	9,000	0.00%		
D	1,453,140	0.14%		
Not Rated	15,903,277	1.53%		
Total Credit Risk Debt Securities	\$584,497,533	56.08%		
U.S. Government Securities	175,662,262	16.86%		
Total Fixed Income Securities	\$760,159,795	72.94%		
Cash	225,582,807	21.64%		
Subtotal	\$985,742,602	94.58%		
*Fire & Police Members' Self-Directed Investment Fund				
Fixed Income Funds	\$20,650,694	1.98%		
Money Market & Stable Value Funds	35,638,775	3.42%		
Cash	161,989	0.02%		
Subtotal	\$56,451,458	5.42%		
- Fotal	\$1,042,194,060	100.00%		

<sup>\*</sup> Fire & Police Members' Self-Directed Investment Fund is not rated.

# 4. Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. FPPA utilizes effective duration as the primary measure of interest rate risk within its fixed income investments. Although FPPA does not have a specific policy relating to interest rate risk, through its Master Statement of Investment Policies and Objectives for the Fund, FPPA has established and monitors specific guidelines regarding the types, exposures and quality of securities within each fixed income portfolio.

The following table summarizes the effective duration of the FPPA's fixed income portfolios at December 31, 2016:

	Fixed Income Portfol		
ecurity Type	Fair Value	Effective Duration	
Fire & Police Members' Benefit Investment Fund			
Asset Backed Securities	\$11,798,163	2.324	
Corporate Bonds	319,843,618	4.888	
Financial Futures	120,016	11.681	
Fixed Income Swaps	(1,237,241)	8.597	
Government & Agency	272,917,861	2.929	
International Bonds	34,539,592	3.936	
Mortgages- Non-Agency	9,039,682	1.006	
Mortgages-Agency	4,722,162	3.485	
Preferred Stock	6,225,181	0.000	
Private Placements	90,132,001	1.922	
Puts/Calls/Options	8,021	0.000	
Revenue Bonds	5,583,909	7.472	
TIPS	6,466,830	2.658	
Cash	225,582,807	0.003	
Subtotal	\$985,742,602		
Fire & Police Members' Self-Directed Investment Fund			
Fixed Income Funds	\$20,650,694	4.361	
Money Market & Stable Value Funds	35,638,775	1.690	
Cash	161,989	0.003	
Subtotal	\$56,451,458		
otal	\$1,042,194,060	2.807	

## 5. Foreign Currency Risk

Foreign currency risk is the risk that changes in foreign exchange rates will adversely affect the fair value of an investment. FPPA's exposure to foreign currency risk derives primarily from its allocations to non-U.S. dollar denominated international equity. Other sources of foreign currency risk are derived from fixed income and alternative investments. Although FPPA does not have a specific policy relating to foreign currency risk, through its Master Statement of Investment Policies and Objectives for the Fund, FPPA has established and monitors specific guidelines regarding the types, exposures and quality of securities within each investment portfolio.

The fair value of FPPA's exposure to foreign currency risk at December 31, 2016 is summarized in the following table:

Currency	Cash	Global Equity	Fixed In- come	Private Capital	Total
Australian Dollar		\$29,944,535	\$4,248,280		\$34,192,815
British Pound		79,976,982		\$19,862,852	99,839,834
Canadian Dollar		48,969,618	2,074,854		51,044,472
Danish Krone		10,276,257			10,276,257
Euro Currency		141,217,080	7,051,164	43,405,444	191,673,688
Hong Kong Dollar		56,252,754			56,252,754
Indian Rupee		10,552,016			10,552,016
Israeli Shekel		1,393,202			1,393,202
Japanese Yen	\$22,171,628	127,827,672	5,958,501		155,957,801
Korean Won		24,100,946			24,100,946
Malaysian Ringgit		1,233,170			1,233,170
Mexican Peso	7,317,685	1,598,966	2,865,204		11,781,855
New Zealand Dollar		1,129,359	4,470,310		5,599,669
Norwegian Krone		4,882,252	1,282,202		6,164,454
Philippine Peso			1,557,513		1,557,513
Russian Ruble		1,850,144			1,850,144
Singapore Dollar		4,216,070	2,426,756		6,642,826
South African Rand		5,245,617			5,245,617
Swedish Krona		17,089,907	1,017,393		18,107,300
Swiss Franc		38,967,862			38,967,862
Taiwan Dollar		20,086,019			20,086,019
Thailand Baht		5,455,982			5,455,982
Turkish Lira		3,763,368			3,763,368
United Arab Emirates Dirham		1,487,338			1,487,338
Other (less than \$1 million in holdings)	3,502,290	3,556,819	2,409,313		9,468,422
Subtotal	\$32,991,603	\$641,073,935	\$35,361,490	\$63,268,296	\$772,695,324
U.S. Dollar	192,591,204	759,997,188	724,798,305	507,625,384	2,185,012,081
Grand Total	\$225,582,807	\$1,401,071,123	\$760,159,795	\$570,893,680	\$2,957,707,405

The above chart excludes the investment classes of equity long/short, real assets, real estate, absolute return, managed futures, securities lending, and the assets of the Fire & Police Members' Self-Directed Investment Fund which are comprised of U.S. dollar based investments.

### E. Securities Lending

Colorado statute allows FPPA to participate in securities lending transactions. FPPA has, via a Securities Lending Authorization Agreement, authorized Deutsche Bank to lend the securities to broker-dealers and banks. Securities are held at BNY Mellon Bank.

FPPA receives as collateral U.S. and foreign dollar cash, U.S. government securities, foreign sovereign debt and irrevocable bank letters of credit. Borrowers are required to deliver collateral for each loan in amounts equal to 102 percent of the fair value of the loaned securities with respect to U.S. securities and 105 percent of the fair value of loaned securities with respect to foreign securities. FPPA does not impose any restrictions on the amounts of loans that Deutsche Bank made on its behalf. FPPA and borrowers maintained the right to terminate all securities lending transactions on demand. The cash or U.S. Government and Agency securities collateral

received on each loan is invested, together with the cash collateral of other qualified tax-exempt plan lenders. Maturities of the investments made with cash collateral generally do not match the maturities of securities loans. The securities lending positions at December 31, 2016 and December 31, 2015 are as follows:

	December 31, 2016	December 31, 2015
Fair Value of Securities on Loan	\$75,547,864	\$88,409,440
Collateral Held	77,357,635	90,783,248
Fair Value of Invested Collateral	77,397,016	90,788,092
Securities Lending Obligations	77,410,620	90,808,707

The invested collateral and corresponding obligation are reflected in the Statement of Fiduciary Net Position as assets and liabilities, respectively. Due to the decline in the fair value in the invested collateral, the liability represented by the securities lending obligation is greater than the invested collateral. For the year ended December 31, 2016, the increase in fair value of the invested collateral was \$34,537 in comparison to the increase in fair value of the invested collateral for the year ended December 31, 2015 of \$72,407. These changes are reflected in the "Gain on Securities Lending" line on the Statement of Changes in Fiduciary Net Position. The invested collateral securities in this program are typically held to maturity and expected to mature at par.

As of December 31, 2016, FPPA had no credit exposure to the collateral held within the securities program because the fair value of the collateral exceeded the fair value of the securities amount borrowed. The agreement with FPPA's lending agent provides that the lending agent will indemnify FPPA if loaned securities are not returned and FPPA suffers direct losses due to a borrower's default or the lending agent's noncompliance with the contract. FPPA will have credit exposure with respect to investments in debt instruments as part of the securities lending investment pool.

FPPA records its share of lending fees as an expense with a corresponding effect of recognizing security lending income earned.

The following table presents the balances relating to securities lending transactions at December 31, 2016:

Securities Lent	Fair Value of Securities on Loan	Collateral Held
Lent for Cash Collateral:		
U.S. Government and Agency Securities	\$2,589,272	\$2,625,958
Corporate Bonds	14,657,129	15,037,097
Domestic Stocks	55,879,382	57,141,375
International Stocks	2,422,081	2,553,205
Total	\$75,547,864	\$77,357,635

At December 31, 2016, the fair value of the invested collateral was \$77,397,016.

### F. Interest Income

The Statement of Changes in Fiduciary Net Position for the Fire & Police Members' Benefit Investment Fund reflects interest investment income of \$11,627,940 for the year 2016. Interest income for the Fire & Police Members' Self-Directed Investment Fund totaled \$32,447 for 2016.

## NOTE 5 | IRC 457 DEFERRED COMPENSATION PLAN

The IRC 457 Deferred Compensation Plan, created under Internal Revenue Code Section 457, collects voluntary deferred contributions or, effective November 30, 2016, post-tax contributions through the Roth option by participants of affiliated plans and employees of FPPA. The assets are held in trust for the exclusive benefit of participants. Plan participation is voluntary and contributions are separate from the defined benefit or money purchase contributions made to FPPA.

All contributions are invested in the Fire & Police Members' Self-Directed Investment Fund. This plan allows employees to defer a portion of their salary until future years. Participants in the plan are allowed to transfer account balances among a variety of investment funds, or change the contribution percentages designated to each fund on a daily basis. The core investment funds as of December 31, 2016 are:

- Vanguard Institutional Target Retirement 2010 Fund Institutional Shares
- Vanguard Institutional Target Retirement 2015 Fund Institutional Shares
- Vanguard Institutional Target Retirement 2020 Fund Institutional Shares
- Vanguard Institutional Target Retirement 2025 Fund Institutional Shares
- Vanguard Institutional Target Retirement 2030 Fund Institutional Shares
- Vanguard Institutional Target Retirement 2035 Fund Institutional Shares
- Vanguard Institutional Target Retirement 2040 Fund Institutional Shares
- Vanguard Institutional Target Retirement 2045 Fund Institutional Shares
- Vanguard Institutional Target Retirement 2050 Fund Institutional Shares
- Vanguard Institutional Target Retirement 2055 Fund Institutional Shares
- Vanguard Institutional Target Retirement Income Fund Institutional Shares
- American Beacon Large Cap Value Fund Institutional Class
- American Funds New Perspective Fund Class R6
- Artisan Mid Cap Fund Investor Class
- Dreyfus/The Boston Company Small Cap Value Fund Class I
- Fidelity® Growth Company Fund Class K
- Fidelity® Money Market Trust Retirement Government Money Market Portfolio Class I
- Franklin International Small Cap Growth Fund Class R6
- Gabelli Small Cap Growth Fund Class I
- Harbor International Fund Institutional Class
- John Hancock Funds Disciplined Value Mid Cap Fund Class R6
- Metropolitan West High Yield Bond Fund Class Institutional
- Oppenheimer Developing Markets Fund Class I
- Dodge & Cox Income Fund
- Templeton Global Bond Fund Class R6
- Vanguard Total Bond Market Index Fund Institutional Shares
- Vanguard Total International Stock Index Fund Admiral Shares
- Vanguard Total Stock Market Index Fund Institutional Shares
- Wells Fargo Stable Return Portfolio Class C

In addition, participants may utilize a Self-Directed Brokerage Account in which the investments are not explicitly offered by the plan and are selected directly by the participant. The deferred compensation and associated appreciation in the fair value of the assets held are not available to employees until termination, retirement, death, or an unforeseen emergency. As of December 31, 2016, there were 2,493 participants with account balances within the plan.

In 2016, participants could contribute up to \$18,000 into the plan. Catch-up contributions up to \$6,000 in 2016 were allowed for participants who had attained age 50 before the close of the plan year. As an alternative to the age 50+ catch-up provisions, participants could defer up to twice the contribution limit in a given year for the three years prior to normal retirement age if the maximum contributions have not been made previously. If the "double limit" or Enhanced Contribution Limit is used, the participant cannot use the age 50+ catch-up provision with the same year. A participant may trigger the Enhanced Contribution Limit by electing a normal retirement age. "Normal Retirement Age" means age 70 ½ or some other earlier age specified in writing by the participant. In no event shall normal retirement age be earlier than the earliest date at which one may retire under the employer's basic pension plan without the employer's consent and receive immediate retirement benefits, without incurring an actuarial or similar reduction in benefits. The Enhanced Contribution Limit is available to a participant only during one three-year period. If a participant uses the Enhanced Contribution Limit and then postpones normal retirement age or returns to work after retiring, the limitation shall not be available again before a subsequent retirement.

Participants are eligible to take distributions from their account under any of the following conditions: 1.) Participant attains age 70 ½ in the current calendar year 2.) Participant incurs a separation of service, defined as the termination of employment with the Employer due to death, retirement, or other cause 3.) Participant suffers an approved hardship that results from an unforeseeable emergency 4.) Trustee-to-Trustee transfer to an FPPA defined benefit plan within the Defined benefit System to purchase service. Benefits for a Participant or Beneficiary shall commence no later than April 1 of the calendar year in which the Participant attains age 70 1/2. Beginning in July 2015, participants are eligible to take loans from their account. The outstanding loan balance as of December 31, 2016 is \$1,368,061 and is recorded as part of Other Receivables on the Statements of Fiduciary Net Position.

In response to the 1996 Small Business Protection Act, the Governmental Accounting Standards Board issued Statement No. 32, Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans. This statement requires that amounts deferred under a qualified Section 457 plan be held in trust for the exclusive benefit of participating employees, and not be accessible by the sponsoring government or its general creditors.

In response to this statement, FPPA has modified its trust agreement with respective affiliates to place this plan's activity within the Fire & Police Members' Self-Directed Investment Fund for the purposes of financial statement presentation. Fund balance reserved for withdrawals at December 31, 2016 is \$112,540,415.

# NOTE 6 | OTHER POST EMPLOYMENT BENEFITS (OPEB)

### A. Statewide Death & Disability Plan

### 1. Plan Description

The Plan is a cost-sharing multiple-employer defined benefit death and disability plan covering full-time employees of substantially all fire and police departments in Colorado. As of August 1, 2003, the Plan may include part-time police and fire employees. Contributions to the Plan are used solely for the payment of death and disability benefits. Employers who are covered by Social Security may elect supplementary coverage by the Plan. The Plan was established in 1980 pursuant to Colorado Revised Statutes and currently has 401 participating employer departments. Included in that number are 5 contributing employers as of December 31, 2016, who are covered by Social Security and have elected supplementary coverage by the Plan. The Plan assets are included in the Fire & Police Members' Benefit Investment Fund.

Plan benefits provide 24-hour coverage, both on and off duty and are available for members not eligible for normal retirement under a defined benefit plan, or members who have not met 25 years of accumulated service and age 55 under a money purchase plan.

In the case of an on-duty death, benefits may be payable to the surviving spouse and/or dependent children of active members who were eligible to retire, but were still working. On-duty death and disability benefits are free from state and federal taxes in the event that a member's disability is determined to be the result of an on-duty injury or an occupational disease.

# 2. Contributions

Prior to 1997, the Plan was primarily funded by the State of Colorado, whose contributions were established by Colorado statute. In 1997 the State made a one-time contribution of \$39,000,000 to fund past and future service costs for all firefighters and police officers hired prior to January 1, 1997. No further State contributions are anticipated. Members hired on or after January 1, 1997, began contributing 2.4 percent of base salary to this Plan as of January 1, 1997. The

contribution increased to 2.6 percent of base salary as of January 1, 2007. This percentage can vary depending on actuarial experience. All contributions are made by members or on behalf of members. The 2.6 percent contribution may be paid entirely by the employer or member, or it may be split between the employer and the member.

Since the Aggregate Funding Method used in the annual actuarial valuation does not identify or separately amortize unfunded actuarial liabilities, information about the Statewide Death & Disability Plan's funded status and funding progress has been prepared using the Entry Age Normal Funding Method for that purpose. As provided on the following pages, the single equivalent amortization period based on the above contribution policy and the entry age normal actuarial cost method is 2.6 years as of January 1, 2016.

#### 3. Benefits

Benefits are established by Colorado statute.

If a member dies prior to normal retirement eligibility while off-duty, the surviving spouse shall receive a benefit (including payments made from local defined contribution plans) equal to 40 percent of the monthly base salary paid to the member prior to death. An additional 10 percent of base salary is payable if a surviving spouse has two or more dependent children. If there is no surviving spouse, but the member had one or two dependent children, the benefit payable is 40 percent of the member's monthly base salary. If there is no spouse but three or more dependent children, the benefit equals 50 percent of the member's monthly base salary.

As of October 15, 2002, if a member dies prior to retirement while on-duty; the surviving spouse shall receive a benefit equal to 70 percent of the member's monthly base salary regardless of the number of dependent children. If there is no spouse but one or more dependent children living in the member's household the benefit equals 70 percent of the member's monthly base salary. If there are dependent children without a surviving spouse, and they do not live in the household, the benefit is 40 percent for the first child and 15 percent for each additional child, but not greater than 70 percent in total. Benefits will be paid to the spouse until death and to dependent children until, death, marriage or other termination of dependency.

The Plan provides the members with two types of disability: occupational and total.

Occupational Disability means a member is unable to perform his/her assigned duties due to a medical condition that is expected to last at least 1 year. Assigned duties are those specific tasks or job duties that a member is required to regularly perform. Within the Occupational Disability category, there are two sub-categories: Temporary Occupational Disability and Permanent Occupational Disability.

Temporary Occupational Disability is an occupational disability for which there is prognosis for improvement or recovery through surgical treatment, counseling, medication, therapy or other means.

Permanent Occupational Disability is an occupational disability caused by a condition that is permanent or degenerative and for which there is no prognosis for improvement or recovery through surgical treatment, counseling, medication, therapy or other means.

Total Disability means the member is unable to engage in any substantial gainful activity due to a medically determined physical or mental impairment that may be expected to result in death or that has lasted or is expected to last at least 1 year.

A member who becomes disabled prior to normal retirement eligibility shall be eligible for disability benefits.

If the member is totally disabled, he shall receive 70 percent of his base salary preceding disability.

If the member is occupationally disabled and his disability is determined to be a permanent occupational disability, he shall receive 50 percent of his base salary preceding disability regardless of his family status. If the member is occupationally disabled and his disability is determined to be a temporary occupational disability, he shall receive 40 percent of his base salary preceding disability regardless of his family status for up to five years.

Total disability and permanent occupational disability benefits are offset by the Money Purchase, DROP or SRA balances, converted to annuities. For member's who also participate in Social Security, disability benefits are reduced by Social Security disability benefits derived from employment as a member, if applicable.

Temporary Occupational Disability benefits are payable for a maximum of five years. Permanent Occupational and Total Disability benefits are payable as long as the member remains disabled.

A benefit adjustment of up to 3 percent may be granted to members and spouses by the Fire & Police Pension Association Board of Directors annually. Totally disabled members and their beneficiaries receive an automatic benefit adjustment each year of 3 percent. The benefit adjustment is effective October 1st. A benefit adjustment may begin after receiving benefits for at least 12 calendar months prior to October 1.

### 4. Membership

The participating employees (members) of the Plan as of December 31, 2016, are as follows:

Retirees and Beneficiaries Currently Receiving Benefits	1,111
Active Non-Vested Members	11,975
Total Members	13,086

## 5. Funded Status and Funding Progress

The funded status of the Statewide Death & Disability Plan as of January 1, 2016, the most recent actuarial valuation date, is as follows:

Recults	Using the	Aggregate	Funding	Method
resuits	usina me	Addredate	runama	Method

Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	(Surplus)/ Unfunded AAL (UAAL) (b-a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b – a) / c)
 \$361,070,410	\$344,781,994	\$(16,288,416)	104.72%	\$863,105,687	(1.89%)

Since the Aggregate Funding Method presented in the previous chart does not identify or separately amortize unfunded actuarial liabilities, information about the Statewide Death & Disability Plan's funded status and funding progress has been prepared using the Entry Age Normal Funding Method for that purpose. The following information presented is intended to serve as a surrogate for the funded status and funding progress of the plan.

# Results Using the Entry Age Normal Funding Method

Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	(Surplus)/ Unfunded AAL (UAAL) (b-a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percent- age of Covered Payroll ((b – a) / c)	Equivalent Amortizations Period
\$361,070,410	\$347,242,942	\$(13,827,468)	103.98%	\$863,105,687	(1.60%)	2.6 years

The funded status of the Statewide Death & Disability Plan decreased from 110.8 percent as of January 1, 2015 to 104.0 percent as of January 1, 2016.

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employers and plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employers and plan members to that point. The actuarial methods and assumptions used include techniques that are designed to reduce the effects of short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations. The actuarially determined amounts are subject to continual revision as results are compared to past expectations and new estimates are made about the future. Key methods and assumptions used in the latest actuarial valuation are presented here:

Valuation Date	January 1, 2016
Actuarial Method	Aggregate Funding (1)
Amortization Method	N/A
Amortization Period	N/A
Asset Valuation Method	5-Year Smoothed Fair Value
Actuarial Assumptions:	
Investment Rate of Return*	7.5%
Projected Salary Increases*	4.0% - 14.0%
Benefit Adjustment	0% - 3%
*Includes inflation at	2.5%

(1) The aggregate funding method does not identify or separately amortize unfunded actuarial liabilities.

For financial reporting purposes, the projection of benefits for the Statewide Death & Disability Plan does not explicitly incorporate the potential effects of the legal limit on employer contributions

# 6. Significant Factors Affecting Trends in Actuarial Information

Investment returns on a smoothed basis as well as salary increases less than expected during 2016 created liability gains for the Plan. In addition, increased contributions to the Statewide Defined Benefit Plan increase the amounts considered for Money Purchase Offset and accordingly reduce the projected benefits payable from the Statewide Death & Disability Plan, creating another liability gain. Outstanding deferred gains will put upward pressure on the funded ratio in future valuations.

The global assumption set for plans administered by FPPA was changed in conjunction with the 2015 Experience Study and effective with the January 1, 2016 valuations. Significant changes include:

- · Reduce the inflation assumption from 3.0% to 2.5%
- · Increase the real rate of return assumption from 4.5% to 5.0%, resulting in no overall change to the nominal return assumption of 7.5%
- · Add an explicit charge for administrative expenses in the actuarial contribution determination
- · Revise the base mortality tables and the explicit assumption for increasing longevity in the future to reflect current mortality studies
- · Increase the expected incidence of Total Disability for members of FPPA's defined benefit plans

## B. FPPA Staff Healthcare Subsidy Plan

### 1. Plan Description

FPPA administers a single-employer defined benefit healthcare plan (FPPA Staff Healthcare Subsidy Plan). The plan provides a healthcare premium subsidy to all full time employees who leave FPPA and have completed at least ten years of service with the FPPA. Currently, 22 employees meet those eligibility requirements and 7 are receiving a benefit. The program began in March 1993.

### 2. Contributions and Benefit provisions

FPPA provides a health care premium subsidy to eligible retirees. The subsidy period is limited to the number of years actually worked at FPPA and further limited to the maximum subsidy paid by the Public Employees Retirement Association of Colorado (PERA). The subsidy is \$11.50 per month for each year of PERA covered service with a maximum of 20 years. This amount decreases to \$5.75 per month for each year of PERA covered service when the beneficiary becomes Medicare eligible. Currently, the maximum subsidy paid by PERA is \$230 per month pre-Medicare and \$115 per month Medicare-covered. The PERA subsidy can be increased by an act of the Colorado General Assembly. The retiree health plan does not issue a publicly available financial report.

Contributions to the FPPA Staff Healthcare Subsidy Plan are made solely by the Employer. Employees do not contribute to the Plan.

### 3. Funding Policy

FPPA applies alternative measurement methods instead of obtaining actuarial valuations due to the small size of this plan. FPPA is funding this plan by taking the projected liability (\$291,369 as of December 31, 2016) less the unsmoothed fair value of assets (\$228,811 as of October 31, 2016) and amortizing this over 10 years at the FPPA 7.5 percent actuarial rate. Based on this calculation, FPPA contributed \$8,478 in 2016. FPPA has provided contributions to the Plan equivalent to the annual required contribution. As a result, the Net OPEB obligation is zero as of December 31, 2016. The following table contains information regarding the OPEB cost of the FPPA Staff Healthcare Subsidy Plan:

	12/31/2016	12/31/2015	12/31/2014
Annual OPEB Cost	\$8,478	\$5,818	\$6,240
% of Annual OPEB Cost Contributed this period	100.00%	100.00%	100.00%
Net OPEB Obligation	\$0	\$0	\$0

## 4. Funded Status and Funding Progress

The funded status of the FPPA Staff Healthcare Subsidy Plan as of December 31, 2016, the most recent date in which alternative measurement methods were applied, is as follows:

Value of Assets (as of 10/31/2016) (a)	Accrued Liability (b)	(Surplus)/ Unfunded Accrued Liability (b-a)	Funded Ratio (a / b)	Covered Payroll (c)	Unfunded Liability as a Percentage of Covered Payroll ((b – a) / c)
\$228,811	\$291,369	\$62,558	78.53%	\$0	N/A

The funded status of the FPPA Staff Healthcare Subsidy Plan decreased between December 31, 2016 and December 31, 2015 due to unfavorable market returns.

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employers and plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of employer benefit costs to that point. The alternative measurement methods and assumptions used include techniques that are designed to reduce the effects of short-term volatility in the accrued liabilities and the value of assets, consistent with the long-term perspective of the calculations. The determined amounts are subject to continual revision as results are compared to past expectations and new estimates are made about the future. Key

methods and assumptions used in the latest valuation are presented below:

Valuation Date	December 31, 2016
Actuarial Method	Not Applicable – Alternative Measurement Methods Used
Amortization Method	Level Dollar Amortization
Amortization Period	10 Years
Asset Valuation Method	Fair Value
Actuarial Assumptions: Investment Rate of Return Discount Rate* *Includes inflation at	7.5% 7.5% 2.5%

For financial reporting purposes, the projection of benefits for the FPPA Staff Healthcare Subsidy Plan does not explicitly incorporate the potential effects of the legal limit on employer contributions.

5. Significant Factors Affecting Trends in Valuation Information The plan increased eligible active participants in 2016 with more employees reaching the 10 years of service minimum creating a negative impact to the funded status of the plan in 2016.

# NOTE 7 | PROPERTY AND EQUIPMENT

Property and equipment at December 31, 2016, is comprised of the following:

General Assets	Balance 12/31/2015	Additions	Deletions	Balance 12/31/2016
Nondepreciable Assets:				
Land	\$1,937,742			\$1,937,742
Depreciable Assets:				
Building & Improvements	2,484,772	\$9,717	\$(7,242)	2,487,247
Equipment	516,795	70,084	(156,976)	429,903
Intangible Assets (Internally generated computer software)	5,516,241	551,573		6,067,814
Totals at Historical Cost	\$10,455,550	\$631,374	\$(164,218)	\$10,922,706
Less Accumulated Depreciation/Amortization for:				
Building & Improvements	\$(1,801,313)	\$(66,492)	\$7,242	\$(1,860,563)
Equipment	(434,306)	(48,612)	156,976	(325,942)
Intangible Assets (Internally generated computer software)	(4,218,209)	(769,800)		(4,988,009)
Total Accumulated Depreciation/	¢(¢ 452 020)	¢(004 004)	¢164 210	¢(7.174.514)
Amortization	\$(6,453,828)	\$(884,904)	\$164,218	\$(7,174,514)
Total Net Assets	\$4,001,722	\$(253,530)	\$0	\$3,748,192

Land, Building, and Improvements are held as an operating asset and not held within the Fire & Police Members' Benefit Investment Fund. Depreciation/Amortization Expense for 2016 totaled \$884,904.

# NOTE 8 | FPPA EMPLOYEE RETIREMENT PLAN

### A. Plan Description

All employees of FPPA are provided with pensions through the State Division Trust Fund (SDTF)—a cost-sharing multiple-employer defined benefit pension plan administered by the Public Employees' Retirement Association of Colorado (PERA). Plan benefits are specified in Title 24, Article 51 of the Colorado Revised Statutes (CRS), as amended. Colorado State law provisions may be amended from time to time by the Colorado General Assembly. PERA issues a publicly available comprehensive annual financial report that can be obtained at www.copera.org/investments/pera-financial-reports. PERA's report includes information regarding the investment strategies, allocations and returns of the SDTF, actuarial assumptions and historical information regarding employer contributions and changes in benefit provisions.

#### **B.** Contributions

Plan members and FPPA are required to contribute at a rate set by statute. The contribution requirements of plan members and FPPA are established under CRS § 24-51-401. During 2016, members contributed 8.0 percent of covered salary and FPPA contributed 18.23 percent of covered salary. FPPA's contributions to the SDTF for the years ending December 31, 2016, 2015 and 2014 were \$920,107, \$802,974, and \$666,652, respectively, equal to the required contributions for each year.

### C. Benefits Provided

PERA provides retirement, disability, and survivor benefits. Retirement benefits are determined by the amount of service credit earned and/or purchased, highest average salary, the benefit structure under which the member retires, the benefit option selected at retirement, and age at retirement. Retirement eligibility is specified in tables set forth at CRS § 24-51-602, 604, 1713, and 1714.

The lifetime retirement benefit for all eligible retiring employees under the PERA Benefit Structure is the greater of the highest average salary multiplied by 2.5 percent and then multiplied by years of service credit or the value of the retiring employee's member contribution account plus a 100 percent match on eligible amounts as of the retirement date. This amount is then annuitized into a monthly benefit based on life expectancy and other actuarial factors.

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

Disability benefits are available for eligible employees once they reach five years of earned service credit and are determined to meet the definition of disability.

### D. FPPA Accounting for the SDTF

FPPA accounts for the SDTF under GASB Statement No. 68, Accounting and Financial Reporting for Pensions. GASB Statement No. 68 requires FPPA to record a net pension liability based on its proportionate share of the SDTF's collective net pension liability. Likewise, FPPA's proportionate share of the SDTF's deferred outflows and deferred inflows of resources related to pension and pension expense are recorded in the Statements of Fiduciary Net Position and Statements of Changes in Fiduciary Net Position for the year ending December 31, 2016.

The total pension liability was determined from the December 31, 2015 actuarial valuation. The proportionate share of the FPPA net pension liability calculated using the discount rate of 7.50 percent is \$17,552,907. The proportionate share of the net pension liability would be \$22,174,283 if it were calculated using a discount rate that is 1-percentage-point lower (6.50 percent) or \$13,685,321 if it were calculated using a discount rate that is 1-percentage-point higher (8.50 percent) than the current rate.

# NOTE 9 | FPPA EMPLOYEE DEFINED CONTRIBUTION PENSION PLAN

# A. Plan Description

The SDTF members of FPPA may contribute to the Voluntary Investment Program (VIP), an Internal Revenue Code Section 401(k) defined contribution plan administered by PERA. Plan participation is optional, and contributions are separate from others made to PERA. Title 24, Article 51, Part 14 of the CRS, as amended, assigns the authority to establish the Plan provisions to the PERA Board of Trustees. PERA issues a publicly available comprehensive annual financial report for the Program. That report can be obtained at www.copera.org/investments/pera-financial-reports.

#### **B.** Contributions

The VIP is funded by member contributions and discretionary employer matching contributions. The maximum contribution levels are set by the Internal Revenue Service and change annually. FPPA matched member contributions up to a maximum \$1,000 in 2016. Employees are immediately vested in their own contributions, employer contributions and investment earnings. The VIP member contributions from FPPA employees for the year ended December 31, 2016 were \$123,468 and the matching employer contributions were \$10,504.

## NOTE 10 | FPPA EMPLOYEE OTHER POST-EMPLOYMENT BENEFITS

#### A. Plan Description

FPPA contributes to the Health Care Trust Fund (HCTF), a cost sharing multiple-employer healthcare trust administered by PERA. The HCTF benefit provides a health care premium subsidy and health care programs (known as PERACare) to PERA participating benefit recipients and their eligible beneficiaries. Title 24, Article 51, Part 12 of the CRS, as amended, establishes the HCTF and sets forth a framework that grants authority to the PERA Board to contract, self-insure and authorize disbursements necessary in order to carry out the purposes of the PERACare program, including the administration of health care subsidies. PERA issues a publicly available comprehensive annual financial report that includes financial statements and required supplementary information for the HCTF. That report can be obtained at www.copera.org/investments/pera-financial-reports.

### **B.** Contributions

FPPA is required to contribute at a rate of 1.02 percent of PERA-includable salary for all PERA members as set by statute. No member contributions are required. The contribution requirements for FPPA are established under Title 24, Article 51, Part 4 of the CRS, as amended. The apportionment of the contributions to the HCTF is established under Title 24, Article 51, Section 208(1)(f) of the CRS, as amended. For the years ending December 31, 2016, 2015 and 2014, FPPA's contributions to the HCTF were \$51,766, \$47,261, and \$41,384, respectively, equal to their required contributions for each year.

# **NOTE 11 | RISK MANAGEMENT**

FPPA is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters. It carries commercial coverage of these risks of loss. Claims have not exceeded coverage in any of the last three fiscal years.

# **NOTE 12 | DERIVATIVE INSTRUMENTS**

#### A. Forward Foreign Exchange Contracts

Through its various money managers, FPPA may enter into forward foreign exchange contracts to hedge against changes in currency prices relative to the U. S. dollar. Forward foreign exchange contracts are a contractual obligation between two parties to pay or receive specific amounts of foreign currency at a future date in exchange for another currency at an agreed-upon exchange rate. Forward commitments are not standardized and carry counterparty risk. Forwards are usually transacted over the counter (OTC) with the foreign exchange department of a bank located in a major money market. Recognition of realized gain or loss depends on whether the currency exchange rate has moved favorably or unfavorably to the contract holder upon termination of the contract. As of December 31, 2016, the total portfolio had 0.2% percent net exposure to forward foreign exchange contracts. The fair value of exposure was comprised of \$1,343,252,791 in payables and \$1,352,631,868 in receivables, for a net exposure of \$9,379,077.

### B. Equity Index Futures

FPPA through its various managers has invested in equity index futures. These future positions are used solely to provide liquidity and market exposure.

FPPA utilizes an Exposure Manager to temporarily rebalance the portfolio via the use of derivatives contracts, primarily index futures. Derivatives contracts can be used to approximate the benchmarks of underlying managers or asset classes. An Exposure Manager may also be utilized to create equity exposure up to the amounts of cash held within the accounts of FPPA's domestic and international equity managers. As of December 31, 2016, the total portfolio had 0.0% percent net exposure to equity index futures. The fair value of exposure was comprised of \$954,967 in payables and \$0 in receivables, for a net exposure of (\$954,967).

## C. Financial Futures, Options

FPPA, through its various money managers, has entered into exchange traded financial futures. The purpose of these contracts is for hedging, as an alternative to investments in the cash market and as an additional yield curve management strategy. These futures included U.S. agency, bond and treasury futures and options. In addition, contracts include Eurodollar and interest rate swap futures. Money managers may also invest in forward contracts. These transactions relate to a forward commitment strategy in cash equivalents or short duration securities with an effective duration of one year or less. As of December 31, 2016, the total portfolio had 0.1% percent net exposure financial futures. The fair value of exposure was comprised of \$5,679,893 in payables and \$7,811,500 in receivables, for a net exposure of \$2,131,607.

# NOTE 13 | COMMITMENTS AND CONTINGENCIES

FPPA is involved in various claims and legal actions arising in the ordinary course of business. In the opinion of FPPA's legal counsel, the ultimate resolution of these matters will not have a material adverse effect on the financial condition of the Fire & Police Members' Benefit Investment Fund. FPPA has invested in certain limited partnerships and private fund investments. As part of these investments, FPPA has agreed to contribute additional funds at various times. At December 31, 2016, FPPA had committed approximately \$533.1 million in additional funds to these investments.

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# ■ Schedule of Annual Money-Weighted Rate of Return on Pension Plan Investments

The annual money-weighted rate of return for the Fire & Police Members' Benefit Investment Fund is as follows:

As of December 31	Annual Money-Weighted Rate of Return
2016	5.5%
2015	1.9%
2014	9.9%

Note - Information prior to 2014 is not available.

# **Financial Section** ■ **Required Supplementary Information - 2016** continued

# **Cost-Sharing and Single Employer Plans**

Schedule of Changes in the Employers' Net Pension Liability | December 31, 2016

<b>Defined Benefit System</b>   Statewide I			
	2016	2015	2014
Total Pension Liability			
Service Cost	\$72,572,756	\$66,774,163	\$1,231,110
Interest	138,918,731	124,407,008	2,197,875
Benefit Changes	3,080,926	2,819,803	(9,641,302
Difference Between Actual and			
Expected Experience	8,604,791	18,544,608	9,903,233
Assumption Changes	32,998,660		
Benefit Payments	(59,989,380)	(53,076,425)	(47,700,529
Refunds	(1,813,180)	(1,763,962)	(1,848,698
Net Change in Total Pension Liability	\$194,373,304	\$157,705,195	\$127,433,152
Total Pension Liability - Beginning	1,818,769,489	1,661,064,294	1,533,631,141
Total Pension Liability - Ending	\$2,013,142,793	\$1,818,769,489	\$1,661,064,293
Plan Fiduciary Net Position			
Contributions - Employer	\$40,930,412	\$38,807,864	\$35,952,356
Contributions - Member	59,427,866	71,434,264	47,508,931
Net Investment Income	101,475,943	30,587,174	138,837,648
Benefit Payments	(59,989,380)	(53,076,425)	(47,700,529
Refunds	(1,813,180)	(1,763,962)	(1,848,698
Administrative Expense	(3,383,884)	(3,022,691)	(1,242,382
Contributions for Service Reinstatements	20,412		
Other			
Net Change in Plan Fiduciary			
Net Position	\$136,668,189	\$82,966,224	\$171,507,326
Plan Fiduciary Net Position -			
Beginning*	1,848,724,854	1,765,758,630	1,623,049,809
Plan Fiduciary Net Position -			
Ending*	\$1,985,393,043	\$1,848,724,854	\$1,794,557,135
Net Pension Liability - Ending	\$27,749,750	\$(29,955,365)	\$(133,492,842
Plan Fiduciary Net Position as a			
Percentage of the			
Total Pension Liability	98.6%	101.6%	108.0%
Covered Employee Payroll	\$535,968,391	\$495,534,535	\$449,010,427
Net Pension Liability as a			
Percentage of Covered			
Employee Payroll	5.2%	(6.0%)	(29.7%

Note - Information prior to 2014 is not available

<sup>\*</sup>The Plan Fiduciary Net Position used to calculate the Net Pension Liability in the above Schedules of Changes in the Employers' Net Pension Liability uses the net invested plan assets as of December 31 of each year presented. It does not include the impact of contributions not received during 2016 and the net pension liability associated with the FPPA Staff participation in the Public Employees' Retirement Association of Colorado pension plan.

# Cost-Sharing and Single Employer Plans continued

Schedule of Changes in the Employers' Net Pension Liability | December 31, 2016 continued

	2016	2015	2014
Total Pension Liability			
Service Cost	\$1,296,839	\$1,231,110	\$1,312,804
Interest	2,686,507	2,197,875	1,978,643
Benefit Changes	360,485	279,549	195,705
Difference Between Actual and			
Expected Experience	2,908,771	2,908,248	1,409,819
Assumption Changes	676,345		
Benefit Payments	(1,191,766)	(953,099)	(752,330
Refunds	(17,151)	(18,365)	(43,962
Net Change in Total Pension Liability	\$6,720,030	\$5,645,318	\$4,100,679
Total Pension Liability - Beginning	35,869,653	30,224,335	26,123,656
Total Pension Liability - Ending	\$42,589,683	\$35,869,653	\$30,224,335
Plan Fiduciary Net Position			
Contributions - Employer	\$1,298,684	\$1,302,433	\$1,237,843
Contributions - Member	4,118,336	4,341,844	1,765,286
Net Investment Income	2,656,991	673,519	3,185,166
Benefit Payments	(1,191,766)	(953,099)	(752,330
Refunds	(17,151)	(18,365)	(43,962
Administrative Expense	(87,869)	(73,679)	(26,331
Contributions for Service Reinstatements	(0.7002)	(, 0,0,0)	(20,001
Other			
Net Change in Plan Fiduciary			
Net Position	\$6,777,225	\$5,272,653	\$5,365,672
Plan Fiduciary Net Position -			
Beginning*	46,309,805	41,037,152	36,323,815
Plan Fiduciary Net Position -			
Ending*	\$53,087,030	\$46,309,805	\$41,689,487
Net Pension Liability - Ending	\$(10,497,347)	\$(10,440,152)	\$(11,465,152)
Plan Fiduciary Net Position as a			
Percentage of the			
Total Pension Liability	124.6%	129.1%	137.9%
Covered Employee Payroll	\$13,829,122	\$13,295,699	\$13,246,537
Net Pension Liability as a			
Percentage of Covered			
Employee Payroll	(75.9%)	(78.5%)	(86.6%

Note - Information prior to 2014 is not available.

<sup>\*</sup>The Plan Fiduciary Net Position used to calculate the Net Pension Liability in the above Schedules of Changes in the Employers' Net Pension Liability uses the net invested plan assets as of December 31 of each year presented. It does not include the impact of contributions not received during 2016 and the net pension liability associated with the FPPA Staff participation in the Public Employees' Retirement Association of Colorado pension plan.

# **Cost-Sharing and Single Employer Plans**

Schedule of Changes in the Employer's Net Pension Liability | December 31, 2016

	2016	2015	2014
Total Pension Liability			
Service Cost	\$2,129,584	\$2,368,863	\$2,394,998
Interest	11,647,997	10,798,529	10,259,613
Benefit Changes			
Difference Between Actual and			
Expected Experience	(535,223)	1,091,231	(989,275)
Assumption Changes	5,122,523		
Benefit Payments	(7,389,735)	(6,228,574)	(5,317,236)
Refunds	(167,056)		
Net Change in Total Pension Liability	\$10,808,090	\$8,030,049	\$6,348,100
Total Pension Liability - Beginning	152,634,101	144,604,052	138,255,953
Total Pension Liability - Ending	\$163,442,191	\$152,634,101	\$144,604,053
Plan Fiduciary Net Position			
Contributions - Employer	\$3,485,586	\$3,437,596	\$3,341,129
Contributions - Member	1,045,342	1,202,513	1,278,915
Net Investment Income	6,569,905	2,206,765	7,744,227
Benefit Payments	(7,389,735)	(6,228,574)	(5,317,236)
Refunds	(167,056)		
Administrative Expense	(209,340)	(194,093)	(14,933)
Contributions for Service Reinstatements	38,760		
Other			
Net Change in Plan Fiduciary			
Net Position	\$3,373,462	\$424,207	\$7,039,103
Plan Fiduciary Net Position -			
Beginning*	123,154,436	122,730,229	115,691,126
Plan Fiduciary Net Position -			
Ending*	\$126,527,898	\$123,154,436	\$122,730,229
Net Pension Liability - Ending	\$36,914,293	\$29,479,665	\$21,873,824
Plan Fiduciary Net Position as a			
Percentage of the			
Total Pension Liability	77.4%	80.7%	84.9%
Covered Employee Payroll	\$14,134,843	\$13,991,673	\$12,468,196
Net Pension Liability as a			
Percentage of Covered			
Employee Payroll	261.2%	210.7%	175.4%

Note - Information prior to 2014 is not available.

<sup>\*</sup>The Plan Fiduciary Net Position used to calculate the Net Pension Liability in the above Schedules of Changes in the Employers' Net Pension Liability uses the net invested plan assets as of December 31 of each year presented. It does not include the impact of contributions not received during 2016 and the net pension liability associated with the FPPA Staff participation in the Public Employees' Retirement Association of Colorado pension plan.

Cost-Sharing and Single Employer Plans continued

Schedule of Changes in the Employer's Net Pension Liability | December 31, 2016 continued

	2016	2015	2014
Total Pension Liability			
Service Cost	\$5,823,050	\$6,027,255	\$6,209,684
Interest	23,783,282	22,182,597	20,973,093
Benefit Changes	23,763,262	22,102,397	20,973,093
Difference Between Actual and			
Expected Experience	(5,402,817)	(839,906)	(1,283,125)
Assumption Changes	8,534,936	(037)200)	(1,203,123)
Benefit Payments	(11,574,477)	(10,088,223)	(8,817,186)
Refunds	(85,530)	(99,734)	(443,708)
Net Change in Total Pension Liability	\$21,080,444	\$17,181,989	\$16,638,758
Total Pension Liability - Beginning	314,987,587	297,805,598	281,166,840
Total Pension Liability - Ending	\$336,068,031	\$314,987,587	\$297,805,598
Plan Fiduciary Net Position			
Contributions - Employer	\$7,512,099	\$7,916,242	\$7,728,841
Contributions - Member	2,628,533	2,493,427	2,830,620
Net Investment Income	14,354,619	4,665,141	20,572,051
Benefit Payments	(11,574,477)	(10,088,223)	(8,817,186
Refunds	(85,530)	(10,088,223)	(443,708
Administrative Expense	(451,871)	(412,381)	(9,711
Contributions for Service Reinstatements	(451,671)	(412,301)	(9,711
Other			
Net Change in Plan Fiduciary			
Net Position	\$12,385,373	\$4,474,472	\$21,860,907
Plan Fiduciary Net Position -			
Beginning*	264,726,596	260,252,124	242,667,157
Plan Fiduciary Net Position -			
Ending*	\$277,111,969	\$264,726,596	\$264,528,064
Net Pension Liability - Ending	\$58,956,062	\$50,260,991	\$33,277,534
Plan Fiduciary Net Position as a			
Percentage of the			
Total Pension Liability	82.5%	84.0%	88.8%
Covered Employee Payroll	\$31,180,071	\$32,359,637	\$30,441,800
Net Pension Liability as a			
Percentage of Covered			
Employee Payroll	189.1%	155.3%	109.3%

Note - Information prior to 2014 is not available.

<sup>\*</sup>The Plan Fiduciary Net Position used to calculate the Net Pension Liability in the above Schedules of Changes in the Employers' Net Pension Liability uses the net invested plan assets as of December 31 of each year presented. It does not include the impact of contributions not received during 2016 and the net pension liability associated with the FPPA Staff participation in the Public Employees' Retirement Association of Colorado pension plan.

#### Financial Section ■ Required Supplementary Information - 2016 continued

### **Cost-Sharing and Single Employer Plans** continued

Schedule of Employers Contributions | December 31, 2016

Defined Be	nefit System   St	atewide Defined Benefit Plan			
Year End	Actuarially Determined Contribution	Contributions in Relation to the Actuarially Determined Contribution	Contributions Deficiency (Excess)	Covered Payroll	Contributions As a % of Covered Payroll
12/31/2016	\$28,512,500	\$40,930,412	\$(12,417,912)	\$535,968,391	7.6%
12/31/2015	23,685,052	38,807,863	(15,122,811)	495,534,535	7.8%
12/31/2014	26,132,407	35,963,171	(9,830,764)	449,010,427	8.0%
12/31/2013	27,222,837	34,688,387	(7,465,550)	426,690,241	8.1%
12/31/2012	26,813,072	33,285,517	(6,472,445)	406,258,662	8.2%
12/31/2011	16,469,596	33,314,074	(16,844,478)	384,803,645	8.7%
12/31/2010	16,472,400	28,896,903	(12,424,503)	353,484,986	8.2%
12/31/2009	16,383,292	28,142,828	(11,759,536)	363,265,902	7.7%
12/31/2008	6,690,792	25,788,749	(19,097,957)	337,918,774	7.6%
12/31/2007	907,286	23,083,356	(22,176,070)	312,857,166	7.4%

Covered Payroll is an actuarial calculated amount comprising base salary reported to FPPA, annualization of base salary for members entering the plan mid-year and estimated wage inflation.

The statutory employer contribution rate for the years presented above was 8 percent and employers met that obligation and contributed 100 percent of the statutorily required amounts.

<b>Defined Be</b>	nefit System   St	atewide Hybrid Plan			
Year End	Actuarially Determined Contribution	Contributions in Relation to the Actuarially Determined Contribution	Contributions Deficiency (Excess)	Covered Payroll	Contributions As a % of Covered Payroll
12/31/2016	\$1,298,684	\$1,298,684	\$0	\$13,829,122	9.4%
12/31/2015	1,316,896	1,316,896	0	13,295,699	9.9%
12/31/2014	1,237,843	1,237,843	0	12,937,791	9.6%
12/31/2013	1,286,870	1,286,870	0	13,384,707	9.6%
12/31/2012	1,272,726	1,272,726	0	12,195,940	10.4%
12/31/2011	961,701	961,701	0	8,770,187	11.0%
12/31/2010	807,955	807,955	0	9,026,182	9.0%
12/31/2009	795,464	795,464	0	7,726,670	10.3%
12/31/2008	683,205	683,205	0	7,342,967	9.3%
12/31/2007	465,247	465,247	0	4,391,954	10.6%

Covered Payroll is an actuarial calculated amount comprising base salary reported to FPPA, annualization of base salary for members entering the plan mid-year and estimated wage inflation.

The statutory employer contribution rate for the years presented above was 8% and employers met that obligation and contributed 100% of the statutorily required amounts.

**Cost-Sharing and Single Employer Plans** continued

Schedule of Employers Contributions | December 31, 2016 continued

Defined Be	nefit System   Co	olorado Springs New Hire Plan	- Police Componer	nt	
Year End	Actuarially Determined Contribution	Contributions in Relation to the Actuarially Determined Contribution	Contributions Deficiency (Excess)	Covered Payroll	Contributions As a % of Covered Payroll
12/31/2016	\$3,485,586	\$3,485,586	\$0	\$14,134,843	24.7%
12/31/2015	7,916,242	7,916,242	0	32,359,637	24.5%
12/31/2014	7,728,841	7,728,841	0	30,441,800	25.4%
12/31/2013	8,050,570	8,050,570	0	30,441,800	26.4%
12/31/2012	6,485,502	6,485,502	0	30,420,085	21.3%
12/31/2011	6,941,971	6,941,971	0	31,381,480	22.1%
12/31/2010	7,199,381	7,199,381	0	33,357,527	21.6%
12/31/2009	4,988,639	4,988,639	0	35,550,304	14.0%
12/31/2008	3,490,595	3,490,595	0	36,735,114	9.5%
12/31/2007	3,865,665	3,865,665	0	39,048,754	9.9%

Covered Payroll is an actuarial calculated amount comprising base salary reported to FPPA, annualization of base salary for members entering the plan mid-year and estimated wage inflation.

Defined Be	nefit System   Co	olorado Springs New Hire Plan	- Fire Component		
Year End	Actuarially Determined Contribution	Contributions in Relation to the Actuarially Determined Contribution	Contributions Deficiency (Excess)	Covered Payroll	Contributions As a % of Covered Payroll
12/31/2016	\$7,512,099	\$7,512,099	\$0	\$31,180,071	24.1%
12/31/2015	3,437,596	3,437,596	0	13,991,673	24.6%
12/31/2014	3,341,129	3,341,129	0	12,468,196	26.8%
12/31/2013	3,373,691	3,373,691	0	12,468,196	27.1%
12/31/2012	2,491,104	2,491,104	0	12,349,627	20.2%
12/31/2011	2,754,261	2,754,261	0	12,497,987	22.0%
12/31/2010	3,071,999	3,071,999	0	19,664,027	15.6%
12/31/2009	2,043,837	2,043,837	0	21,535,495	9.5%
12/31/2008	1,873,427	1,873,427	0	22,483,956	8.3%
12/31/2007	2,420,778	2,420,778	0	23,827,770	10.2%

Covered Payroll is an actuarial calculated amount comprising base salary reported to FPPA, annualization of base salary for members entering the plan mid-year and estimated wage inflation.

Cost-Sharing and Single Employer Plans continued

# NOTE 1 | SCHEDULE OF CHANGES IN THE EMPLOYERS' NET PENSION LIABILITY

The total pension liability contained in this schedule was provided by the plans' actuary, Gabriel, Roeder, Smith & Company. The net pension liability is measured as the total pension liability less the amount of the fiduciary net position of the plan. The required employer contributions and percent of those contributions actually made are presented in the schedule.

### NOTE 2 | ACTUARIAL ASSUMPTIONS FOR DEFINED BENEFIT SYSTEM

The information presented in the required supplementary schedules was used in the actuarial valuation for purposes of determining the actuarially determined contribution rate. The assumptions and methods used for this actuarial valuation were recommended by the actuary and adopted by the Board. Additional information as of the latest actuarial valuation follows.

		Defined Benefit System	
	Statewide Defined Benefit Plan	Statewide Hybrid Plan – Death Benefit Component	Colorado Springs New Hire Pension Plan
Valuation Date	January 1, 2016	January 1, 2016	January 1, 2016
Actuarial Method	Entry Age Normal	Entry Age Normal	Entry Age Normal
Amortization Method	Level % of Payroll, Open	Level % of Payroll, Open	Level Dollar, Closed
Amortization Period	30 Years	30 Years	22 Years, Beginning January 1, 2016
Asset Valuation Method	5-Year Smoothed Fair Value	5-Year Smoothed Fair Value	5-Year Smoothed Fair Value
Actuarial Assumptions:			
Investment Rate of Return*	7.5%	7.5%	7.5%
Projected Salary Increases*	4.0% - 14.0%	4.0% - 14.0%	4.0% - 14.0%
Cost of Living Adjustment (COLA)	0%	0%	2.4% (Fire Component) 2.6% (Police Component
*Includes inflation at	2.5%	2.5%	2.5%

# **Other Post-Employment Benefits Plans**

Schedule of Employers Contributions (Unaudited)

### A. Statewide Death & Disability Plan

All contributions are made by members or on behalf of members to the Statewide Death & Disability Plan. As such, the employer annual required contribution is zero.

### B. FPPA Staff Healthcare Subsidy Plan

Year Ended 12/31	Annual Required Contribution	Percentage Contribution	Contribution Deficiency/(Excess)
2016	\$8,478	100%	\$0
2015	5,818	100%	0
2014	6,240	100%	0
2013	8,056	100%	0
2012	13,266	100%	0
2011	14,823	100%	0

### Financial Section ■ Required Supplementary Information - 2016 continued

### Other Post-Employment Benefits Plans continued

Schedule of Funding Progress (Unaudited) | December 31, 2016

### ■ Statewide Death & Disability Plan Schedule of Funding Progress - Results Using the Entry Age Normal Method

	Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	
2016	1/1/2016	\$361,070,410	\$347,242,942	
2015	1/1/2015	345,009,408	311,334,019	
2014	1/1/2014	325,180,768	289,577,412	
2013	1/1/2013	305,454,945	274,068,253	
2012	1/1/2012	290,988,339	253,869,640	
2011	1/1/2011	281,577,454	229,959,016	

Information about the Statewide Death & Disability Plan's funded status and funding progress has been prepared using the Entry Age Funding Method for this purpose. The information presented above approximates the funded status and funding progress of the plan.

#### ■ FPPA Staff Healthcare Subsidy Plan

		Value of Assets	
	Valuation Date	(as of 10/31)	Accrued Liability
2016	12/31/2016	\$228,811	\$291,369
2015	12/31/2015	230,419	270,765
2014	12/31/2014	226,832	272,878
2013	12/31/2013	206,608	266,050
2012	12/31/2012	174,970	272,861
2011	12/31/2011	154,188	263,567

Unfunded (Surplus) Actuarial Accrued Liability	Funded Ratio	Covered Payroll	Unfunded (Surplus) Accrued Liability as a % of Covered Payroll
\$(13,827,468)	104.0%	\$863,105,687	(1.6%)
(33,675,389)	110.8%	827,633,440	(4.1%)
(35,603,356)	112.3%	810,578,220	(4.4%)
(31,386,692)	111.5%	787,009,650	(4.0%)
(37,118,699)	114.6%	755,952,497	(4.9%)
(51,618,439)	122.4%	750,497,200	(6.9%)

Unfunded (Surplus) Accrued Liability	Funded Ratio	Covered Payroll	Unfunded (Surplus) Accrued Liability as a % of Covered Payroll
\$62,558	78.5%	\$0	N/A
40,346	85.1%	0	N/A
46,046	83.1%	0	N/A
59,442	77.7%	0	N/A
97,891	64.1%	0	N/A
109,379	58.5%	0	N/A

Other Post-Employment Benefits Plans continued

## NOTE 3 | ACTUARIAL ASSUMPTIONS FOR OTHER POST-EMPLOYMENT BENEFITS (OPEB) PLANS

The information presented in the required supplementary schedules was used in the actuarial valuation for purposes of determining the actuarially determined contribution rate. The assumptions and methods used for this actuarial valuation were recommended by the actuary and adopted by the Board. Additional information as of the latest actuarial valuation follows.

	Statewide Death and Disability Plan	FPPA Staff Healthcare Subsidy Plan
Valuation Date	January 1, 2016	December 31, 2016
Actuarial Method	Entry Age Normal	Not Applicable – Alternative Measures Used
Amortization Method	Level % of Payroll, Open	Level Dollar Amount
Amortization Period	30 Years	10 Years
Asset Valuation Method	5-Year Smoothed Fair Value	Fair Value
Actuarial Assumptions: Investment Rate of Return* Projected Salary Increases* Cost of Living Adjustment (COLA)	7.5% 4.0% - 14.0% 0%	7.5% NA NA
*Includes inflation at	2.5%	2.5%

For the Statewide Death & Disability Plan, the post-retirement mortality tables for non-disabled retirees is a blend of the Annuitant and Employee RP-2014 generational mortality tables with blue collar adjustment, projected with Scale BB. The occupationally disabled post-retirement mortality assumption uses the same table as used for healthy annuitants, except there is a three year set-forward, meaning a disabled member age 70 will be valued as if they were a 73 year old healthy retiree. The totally disabled post-retirement mortality assumption uses the RP-2014 generational mortality tables for disabled annuitants, except an additional provision to apply a minimum 3% mortality probability to males and 2 percent mortality probability for females, is included to reflect substantial impairment for this population. The pre-retirement non-duty mortality tables are adjusted to 55% of the RP-2014 mortality tables for active employees. The on-duty mortality rate is 0.00020.

Other Post-Employment Benefits Plans continued

# NOTE 4 | SCHEDULES OF FUNDING PROGRESS AND EMPLOYER CONTRIBUTIONS FOR OTHER POST-EMPLOYMENT BENEFITS (OPEB) PLANS

The historical trend information about the Statewide Death & Disability Plan and the FPPA Staff Healthcare Subsidy Plan is presented as required supplementary information. This information is intended to help users assess the funding status of these plans on a going-concern basis and to assess progress made in accumulating assets to pay benefits when due.

Information for the required supplementary schedules of funding progress and employer contributions is provided for six years for the Statewide Death & Disability Plan and the FPPA Staff Healthcare Subsidy Plan.

# **Financial Section** ■ Other Supplementary Schedules - 2016

Fiduciary Net Position by Participating Employer | December 31, 2016

Members' Benefit Investment Fund

Employer Plan	Fiduciary Net Position Dec 31, 2015	Employer Contributions	Member Contributions	Contribution for Service Reinstate- ment	s Affiliations/ (Withdrawals)
Adams County (North Washington) FPD (Old Hire)	\$2,469,572	\$196,745	COTTETIONALIONS	mene	(VIIIIaiavais)
Adams County (North Washington) FPD (Volunteer)	159,634				
Alamosa County FPD (Volunteer)	583,694	14,162			
Alamosa Fire (Volunteer)	1,576,482	56,245			
Allenspark FPD (Volunteer)	489,698	13,500			
Aspen FPD (Volunteer)	1,841,320	353,500			
Ault FPD (Volunteer)	612,483	84,668			
Aurora Fire (Old Hire)	74,090,539	2,182,774			
Aurora Police (Old Hire)	89,019,202	2,612,565			
Bancroft FPD (Old Hire)	1,463,851	728,738			
Basalt & Rural FPD (Volunteer)	1,755,266	58,741			
Bennett FPD #7 (Volunteer)	906,925	10,000			
Berthoud FPD (Volunteer)	534,721	13,114			
Big Sandy FPD (Volunteer)	133,399	4,000			
Big Thompson Canyon Fire (Volunteer)	376,465	25,000			
Black Forest Fire Rescue (Volunteer)	1,187,335	10,000			
Blanca Fire (Volunteer)	148,143	4,175			
Boone Fire (Volunteer)	35,850	900			
Boulder Mountain FPD (Volunteer)	865,830	25,000			
Boulder Rural FPD (Volunteer)	609,952	······································			
Bow Mar Police (Old Hire)	47,984				
Brighton VFD (Volunteer)	3,626,609	68,950			
Brush Combined Fire (Volunteer)	801,311	38,317			
Buena Vista Fire (Volunteer)	425,424	12,000			
Calhan FPD (Volunteer)	144,537	3,000			
Cañon City Area FPD (Old Hire)	2,848,975	216,474			
Cañon City Area FPD (Volunteer)	249,037	11,569			
Carbondale & Rural FPD (Volunteer)	2,171,397	55,031			
Cascade FPD (Volunteer)	312,592	15,640			
Castle Rock Fire (Volunteer)	957,963	20,440			
Cedaredge Police (Old Hire)	80,787				
Central City VFD (Volunteer)	518,546				
Central Orchard Mesa FPD (Volunteer)	91,843	15,500			
Cherry Hills FPD (Old Hire)	2,293,026	201,921			
Cheyenne County FPD #1 (Volunteer)	430,091	20,000			
Clear Creek Fire Authority (Volunteer)	1,960,914				
Clifton FPD (Volunteer)	1,728,736	14,731			
Coal Creek Canyon FPD (Volunteer)	979,959	53,000			
Colorado River (Burning Mountain) FPD (Volunteer)	2,156,473	437,500			
Colorado River (Rifle) FPD (Volunteer)	4,775,379	50,000			
Colorado Springs Fire (Old Hire)	73,326,035	1,639,319			
Colorado Springs Police (Old Hire)	61,865,742	1,466,936			
Cortez Police (Old Hire)	274,886				

State Contributions	Net Investment Income	Benefit Payments	Refunds	Administrative and Pension Expenses	Change in Fiduciary Net Position	Fiduciary Net Position Dec 31, 2016
	\$115,263	\$(500,243)		\$(5,753)	\$(193,988)	\$2,275,584
	8,392	(6,960)		(526)	906	160,540
	30,440	(35,400)		(1,183)	8,019	591,713
\$18,549	82,403	(112,588)		(2,722)	41,887	1,618,369
 12,150	26,456	(36,351)		(1,054)	14,701	504,399
 40,000	92,900	(288,945)		(3,090)	194,365	2,035,685
 18,209	29,960	(106,200)		(1,206)	25,431	637,914
	3,772,215	(8,246,516)	\$(17,211)	(116,135)	(2,424,873)	71,665,666
	4,554,153	(9,096,225)	(12,633)	(139,543)	(2,081,683)	86,937,519
	55,541	(758,968)		(3,888)	21,423	1,485,274
 10,222	92,230	(165,093)		(3,009)	(6,909)	1,748,357
 9,000	47,591	(51,794)		(1,693)	13,104	920,029
 13,884	26,741	(66,760)		(994)	(14,015)	520,706
 3,600	7,089	(5,950)		(488)	8,251	141,650
 4,971	19,231	(38,000)		(851)	10,351	386,816
 9,000	61,483	(80,928)		(2,113)	(2,558)	1,184,777
 2,191	7,496	(14,910)		(503)	(1,551)	146,592
 1,000	1,823	(3,325)		(331)	67	35,917
 22,500	45,212	(58,570)		(1,620)	32,522	898,352
 29,700	27,811	(133,412)		(1,133)	(77,034)	532,918
	2,284	(6,089)		(1,945)	(5,750)	42,234
 56,649	183,303	(361,950)	(3,415)	(5,772)	(62,235)	3,564,374
 27,775	39,910	(104,278)		(1,392)	332	801,643
 10,800	22,058	(32,185)		(933)	11,740	437,164
	7,801	(2,340)		(508)	7,953	152,490
	139,836	(415,106)		(6,093)	(64,889)	2,784,086
 5,793	12,527	(29,720)		(652)	(483)	248,554
 57,726	110,502	(190,225)	(17,654)	(3,574)	11,806	2,183,203
 5,260	15,781	(38,640)		(753)	(2,712)	309,880
 17,635	48,736	(108,540)		(1,735)	(23,464)	934,499
	3,986	(8,104)		(1,996)	(6,114)	74,673
	26,616	(38,200)		(1,073)	(12,657)	505,889
	4,194	(25,515)		(404)	(6,225)	85,618
	118,377	(396,933)		(5,643)	(82,278)	2,210,748
 18,000	22,043	(41,900)		(934)	17,209	447,300
 25,528	101,125	(145,139)		(3,295)	(21,781)	1,939,133
 8,923	88,733	(136,260)		(2,933)	(26,806)	1,701,930
 24,676	51,945	(95,720)		(1,824)	32,077	1,012,036
 30,929	116,753	(273,399)		(3,752)	308,031	2,464,504
 	249,308	(279,645)		(7,706)	11,957	4,787,336
 	3,737,918	(8,092,919)		(116,520)	(2,832,202)	70,493,833
 	3,161,490	(6,764,470)		(98,727)	(2,234,771)	59,630,971
	14,045	(20,177)		(2,295)	(8,427)	266,459

# Fiduciary Net Position by Participating Employer | December 31, 2016 continued

	Fiduciary Net Position	Employer	Contributions for Service Member Reinstate- Affiliations/			
Employer Plan	Dec 31, 2015	Contributions	Contributions	ment	(Withdrawals)	
Crested Butte FPD (Volunteer)	\$2,988,890	\$142,731				
Cripple Creek Fire (Volunteer)	522,884					
Crowley VFD (Volunteer)	39,437	211				
Crystal Lakes FPD (Volunteer)	262,696	6,500				
Del Norte Police (Old Hire)	1,319	4,935				
Denver Fire (Old Hire)	329,238,485	13,060,761	\$7,485			
Denver Police (Old Hire)	605,938,591	5,027,201				
Divide VFD (Volunteer)	451,288	12,000				
Donald Westcott FPD (Volunteer)	925,339					
Dove Creek FPD (Volunteer)	366,681	67,031				
Durango Fire (Old Hire)	1,070,633	117,868				
Durango Police (Old Hire)	1,611,805	110,495				
Durango FPD (Volunteer)	5,302,300	156,141				
Eads Fire (Volunteer)	142,879	1,000				
East Grand FPD #4 (Volunteer)	1,952,892	60,000				
Eaton FPD (Volunteer)	1,231,102	143,421				
Eckley Fire (Volunteer)	23,628					
Elbert FPD & Rescue (Volunteer)	193,674					
Elizabeth FPD (Volunteer)	1,089,307	44,811				
Elk Creek FPD (Volunteer)	2,629,208					
Englewood Fire (Old Hire)	6,184,409	222,800				
Englewood Police (Old Hire)	4,354,418	434,671				
Englewood Fire (Volunteer)	56,847	5,975				
Evans FPD (Volunteer)	666,382	88,862				
Evergreen FPD (Volunteer)	4,359,735	225,000				
Falcon FPD (Volunteer)	601,157	20,000				
Federal Heights Fire (Volunteer)	2,757,651					
Fisher's Peak FPD (Volunteer)	172,050	3,100				
Florence FPD (Volunteer)	1,642,068	139,019				
Foothills Fire & Rescue (Volunteer)	1,494,117	100,000				
Fort Lewis Mesa FPD (Volunteer)	360,203	4,825				
Fort Morgan Fire (Volunteer)	1,161,686	76,585				
Fort Morgan Rural FPD (Volunteer)	794,254	40,245				
Fort Morgan Police (Old Hire)	458,031	88,699				
Franktown FPD (Volunteer)	2,937,187	00,000				
Frederick Firestone FPD (Volunteer)	132,026	10,003				
Galeton FPD (Volunteer)	1,184,293	100,000				
Genesee FPD (Volunteer)	1,408,298	90,000				
Glacier View FPD (Volunteer)	270,496	5,900				
Glendale Fire (Volunteer)	214,904	5,500				
Glenwood Springs Fire (Volunteer)	669,904	33,105				
Golden Fire (Volunteer)						
	2,776,970	150,000				
Golden Gate FPD (Volunteer)	295,906	17,750				

	Income	Benefit Payments	Refunds	and Pension Expenses	Fiduciary Net Position	Position Dec 31, 2016
 \$40,500	\$158,553	\$(152,092)		\$(4,968)	\$184,724	\$3,173,614
	27,898	(13,680)		(1,103)	13,115	535,999
 190	2,137	(180)		(340)	2,018	41,455
 5,850	14,434	(6,210)		(700)	19,874	282,570
	143	(3,000)		(1,882)	196	1,515
	17,083,769	(42,833,592)	\$(1,893)	(516,373)	(13,199,843)	316,038,642
	30,982,667	(56,901,343)	(74,505)	(938,152)	(21,904,132)	584,034,459
10,800	24,021	(19,016)		(987)	26,818	478,106
	47,661	(64,320)		(1,701)	(18,360)	906,979
48,028	17,023	(97,740)		(791)	33,551	400,232
	49,740	(238,568)	(1,300)	(3,429)	(75,689)	994,944
	77,637	(275,542)	(1,300)	(4,261)	(92,971)	1,518,834
38,552	269,779	(492,335)		(8,352)	(36,215)	5,266,085
 1,000	7,573	(5,400)		(502)	3,671	146,550
 36,000	102,855	(159,940)	(1,213)	(3,323)	34,379	1,987,271
 23,475	62,596	(158,670)		(2,140)	68,682	1,299,784
 1,000	1,157	(3,120)		(312)	(1,275)	22,353
 	10,352	(4,500)		(583)	5,269	198,943
 18,220	54,472	(169,425)		(1,910)	(53,832)	1,035,475
 24,000	135,607	(181,000)	(8,400)	(4,327)	(34,120)	2,595,088
 	305,148	(957,421)	(340)	(11,490)	(441,303)	5,743,106
 	216,957	(886,847)	(365)	(8,611)	(244,195)	4,110,223
 	2,228	(21,600)	(92)	(350)	(13,839)	43,008
 22,123	32,623	(133,353)		(1,253)	9,002	675,384
 80,000	230,563	(409,740)		(7,115)	118,708	4,478,443
 11,340	28,928	(97,425)		(1,154)	(38,311)	562,846
 ······································	149,764	(11,340)	(581)	(4,693)	133,150	2,890,801
 2,790	9,432			(554)	14,768	186,818
 44,330	92,219	(148,020)		(2,945)	124,603	1,766,671
 33,120	78,025	(148,170)		(2,595)	60,380	1,554,497
 12,797	18,523	(31,680)		(831)	3,634	363,837
 58,447	56,549	(192,785)		(1,982)	(3,186)	1,158,500
 41,273	40,068	(100,363)		(1,487)	19,736	813,990
 ,,	22,220	(150,126)	(1,300)	(2,548)	(43,055)	414,976
 32,400	157,617	(64,750)	(1,000)	(4,936)	120,331	3,057,518
 9,003	6,146	(31,200)		(464)	(6,512)	125,514
 6,741	62,914	(65,400)		(2,136)	102,119	1,286,412
14,400	72,424	(126,780)	(5,216)	(2,436)	42,392	1,450,690
 5,310	14,573	(9,750)	(3)213)	(67)	15,966	286,462
 ٠١٠ درد	11,189	(11,680)		(610)	(1,101)	213,803
 18,900	32,397	(110,220)		(1,257)	(27,075)	642,829
 77,940	142,694	(393,525)		(4,519)	(27,410)	2,749,560
 77,570	15,655	(24,300)		(744)	8,361	304,267

Fiduciary Net Position by Participating Employer | December 31, 2016 continued

	Fiduciary Net Position	Employer	Member	Affiliations/	
Employer Plan  Crand FDD #1 (Voluntaar)	Dec 31, 2015	Contributions	Contributions	ment	(Withdrawals)
Grand Ivertion Fire (Old Uire)	\$1,282,866	\$108,333			
Grand Junction Fire (Old Hire)	8,608,496	307,037			
Grand Junction Police (Old Hire)	3,977,942				
Grand Lake FPD (Volunteer)	1,618,185				
Grand Valley FPD (Volunteer)	3,550,599				
Greeley Police (Old Hire)	723,797	68,269			
Greeley (Union Colony) Fire (Old Hire)	9,024,541	6,099			
Green Mountain Falls-Chipita Park FPD (Volunteer)	252,686	16,003			
Gypsum FPD (Volunteer)	614,810	13,280			
Hartsel FPD (Volunteer)	645,485	58,320			
Haxtun Fire (Volunteer)	169,934	2,460			
Haxtun Police (Old Hire)	139,903	9,342			
Hillrose Rural FPD (Volunteer)	259,771	26,000			
Holyoke Fire (Volunteer)	207,944	9,820			
Holyoke FPD (Volunteer)	199,476	9,600			
Hot Sulphur Springs/Parshall FPD (Volunteer)	233,949	4,500			
Hygiene FPD (Volunteer)	1,159,028	36,670			
Indian Hills FPD (Volunteer)	309,852	15,000			
Inter-Canyon FPD (Volunteer)	1,450,539	105,679			
Jackson 105 FPD (Volunteer)	273,594	14,584			
Jefferson-Como FPD (Volunteer)	1,068,380	61,744			
Kiowa FPD (Volunteer)	759,280	20,000			
Kremmling FPD (Volunteer)	452,216	40,515			
La Junta Fire (Old Hire)	787,909	48,084			
La Junta Police (Old Hire)	691,419	37,190			
La Junta Fire (Volunteer)	548,522				
La Salle Police (Old Hire)	1,149,888	6,655	\$6,655		
La Salle FPD (Volunteer)	2,729,339	228,291			
Lafayette Fire (Volunteer)	1,308,833	119,164			
Lake City Area FPD (Volunteer)	88,178	5,196			
Lake Dillon FPD (Volunteer)	3,890,415	92,500			
Lake George FPD (Volunteer)	314,381	9,500			
Lakewood FPD (Old Hire)	13,281,128	- /			
Lamar Fire (Old Hire)	874,615				
Lamar Fire (Volunteer)	806,890	14,200			
Larkspur FPD (Volunteer)	1,442,272	62,000			
Las Animas Police (Old Hire)	269,678	26,510			
Leadville Fire (Old Hire)	142,811	9,793			
Lefthand FPD (Volunteer)	1,239,946	3,000			
Lewis-Arriola FPD (Volunteer)	1,293,018	85,000			
Limon Area FPD (Volunteer)	606,083	5,000			
Livermore FPD (Volunteer)	178,007	5,000			
Log Hill Mesa FPD (Volunteer)					
Log I IIII Wesa FFD (Volunteer)	319,501	20,500			

State Contributions	Net Investment Income	Benefit Payments	Refunds	Administrative and Pension Expenses	Change in Fiduciary Net Position	Fiduciary Net Position Dec 31, 2016
\$31,557	\$65,983	\$(202,650)		\$(2,246)	\$977	\$1,283,843
	432,691	(1,159,261)		(15,321)	(434,854)	8,173,642
	198,081	(434,546)		(8,095)	(244,560)	3,733,382
	83,709	(103,050)		(2,775)	(22,116)	1,596,069
	187,234	(145,553)		(5,838)	35,843	3,586,442
	34,315	(135,851)		(2,919)	(36,186)	687,611
	444,789	(1,096,768)		(15,763)	(661,643)	8,362,898
10,108	12,691	(31,755)		(657)	6,390	259,076
14,400	31,590	(57,595)		(1,223)	452	615,262
9,000	32,341	(83,460)		(1,246)	14,955	660,440
5,263	8,775	(13,150)		(538)	2,810	172,744
	7,055	(22,221)		(2,086)	(7,910)	131,993
 8,039	13,905	(16,333)		(686)	30,925	290,696
7,931	10,827	(16,201)		(597)	11,780	219,724
 7,560	9,794	(33,343)		(574)	(6,963)	192,513
8,100	12,404	(15,000)		(648)	9,356	243,305
 28,947	61,312	(59,940)		(2,093)	64,896	1,223,924
 10,184	15,262	(44,250)		(736)	(4,540)	305,312
 18,500	74,205	(142,471)	\$(4,665)	(2,490)	48,758	1,499,297
 13,991	13,738	(36,120)		(692)	5,501	279,095
 8,550	58,673	(37,780)	(450)	(2,023)	88,714	1,157,094
 13,530	41,161	(32,580)		(1,489)	40,622	799,902
 11,250	23,407	(57,105)		(847)	17,220	469,436
 ······································	40,569	(112,021)		(3,084)	(26,452)	761,457
 	34,775	(111,327)		(2,918)	(42,280)	649,139
 	29,476	(9,920)		(1,148)	18,408	566,930
 	63,157		(1,300)	(2,431)	72,736	1,222,624
 45,770	143,695	(360,000)		(3,110)	54,646	2,783,985
 42,222	63,877	(216,163)		(2,202)	6,898	1,315,731
 2,246	4,954	(1,300)		(422)	10,674	98,852
 81,787	196,946	(440,700)		(6,181)	(75,648)	3,814,767
 6,377	16,328	(22,680)		(763)	8,762	323,143
	654,414	(1,611,740)		(22,299)	(979,625)	12,301,503
 	46,661	(21,444)		(3,508)	21,709	896,324
 12,780	44,326	(11,314)		(1,578)	58,414	865,304
 28,338	72,590	(176,008)		(2,469)	(15,549)	1,426,723
	12,495	(54,982)	(1,300)	(2,258)	(19,535)	250,143
 	7,023	(27,990)		(2,087)	(13,261)	129,550
 11,474	65,277	(57,600)		(2,215)	19,936	1,259,882
 17,435	67,489	(124,428)		(2,298)	43,198	1,336,216
 22,500	32,178	(27,300)		(1,231)	31,147	637,230
 4,500	9,401	(9,240)		(557)	9,104	187,111
 19,035	17,330	(18,840)		(790)	37,235	356,736
, , , ,	,000	(,5.10)		(. 20)	2.,_33	220,730

Fiduciary Net Position by Participating Employer | December 31, 2016 continued

	Fiduciary Net Position	Employer	Contributions for Service Member Reinstate- Affiliations/			
Employer Plan	Dec 31, 2015	Contributions	Contributions	ment	(Withdrawals)	
Loveland Fire (Old Hire)	\$126,184	\$10,448				
Loveland & Rural Consolidated VFD (Volunteer)	2,734,027	91,175				
Lower Valley FPD (Volunteer)	1,632,158					
Lyons FPD (Volunteer)	1,077,970	27,847				
Mancos FPD (Volunteer)	944,009					
Manitou Springs Fire (Old Hire)	324,071	21,799				
Manitou Springs VFD (Volunteer)	350,285	16,000				
Manzanola Rural FPD (Volunteer)	180,416	3,375				
Milliken FPD (Volunteer)	566,311	34,954				
Montrose FPD (Old Hire)	109,362	17,593				
Montrose FPD (Volunteer)	587,463	34,000				
Mountain View FPD (Old Hire)	324,145					
Mountain View FPD (Volunteer)	2,306,534	37,367				
Nederland FPD (Volunteer)	653,303	26,548				
New Raymer/Stoneham FPD (Volunteer)	476,495	244,404				
North Fork FPD (Volunteer)	261,814	30,500				
North Routt County Fire (Volunteer)	254,919	16,730				
Northeast Teller County FPD (Volunteer)	568,081	35,962				
North-West FPD (Volunteer)	312,171	20,000				
Northwest Conejos FPD (Volunteer)	480,957	14,517				
Norwood FPD (Volunteer)	417,573	26,810				
Nucla-Naturita FPD (Volunteer)	609,747	34,000				
Nunn FPD (Volunteer)	890,244	20,890				
Oak Creek FPD (Volunteer)	373,376					
Olathe FPD (Volunteer)	639,892	40,000				
Olney Springs Fire (Volunteer)	170,302					
Ordway Fire (Volunteer)	213,182	500				
Ouray VFD (Volunteer)	487,757	18,000				
Palisade VFD (Volunteer)	910,862	30,597				
Palmer Lake Fire (Volunteer)	26,624	8,925				
Parker FPD (Volunteer)	343,924	28,670				
Pawnee FPD (Volunteer)	169,465	3,500				
Peetz FPD (Volunteer)	273,044	10,000				
Peyton FPD (Volunteer)	52,141	3,000				
Pinewood Springs VFD (Volunteer)	182,188	4,894				
Plateau Valley FPD (Volunteer)	1,603,673	74,523				
Platte Canyon FPD (Volunteer)	1,031,723	24,861				
Platte Valley FPD (Volunteer)		21,001				
		100 000				
-						
Pueblo Fire (Old Hire)	34,719,752	1,324,595				
Platte Valley FPD (Volunteer) Platteville/Gilcrest FPD (Volunteer) Pleasant View Metro Fire District (Volunteer) Poudre Canyon FPD (Volunteer) Poudre Fire Authority (Volunteer) Pueblo Fire (Old Hire)	2,200,221 4,190,936 1,733,221 96,397 103,953 34,719,752	100,000 12,485 5,123 4,035 1,324,595				

State Contributions	Net Investment Income	Benefit Payments	Refunds	Administrative and Pension Expenses	Change in Fiduciary Net Position	Fiduciary Net Position Dec 31, 2016
	\$6,003	\$(26,776)		\$(2,061)	\$(12,386)	\$113,798
\$86,589	133,811	(396,888)		(4,314)	(89,627)	2,644,400
29,406	85,606	(86,375)		(2,821)	25,816	1,657,974
14,630	57,479	(45,150)		(1,975)	52,831	1,130,801
12,411	50,913	(15,240)		(1,853)	46,231	990,240
	17,007	(38,357)		(2,380)	(1,931)	322,140
14,400	18,105	(57,225)		(813)	(9,533)	340,752
2,709	9,706	(7,044)		(564)	8,182	188,598
24,031	28,001	(93,665)		(1,126)	(7,805)	558,506
	5,147	(33,412)	\$(1,300)	(2,034)	(14,006)	95,356
 22,500	30,305	(83,083)		(1,178)	2,544	590,007
	15,451	(50,063)		(2,347)	(36,959)	287,186
 33,630	116,767	(226,160)		(3,704)	(42,100)	2,264,434
4,500	34,784	(32,520)		(1,304)	32,008	685,311
122,451	29,421	(14,400)		(1,097)	380,779	857,274
 5,727	14,015	(18,624)		(689)	30,929	292,743
 15,300	13,167	(27,435)		(672)	17,090	272,009
 5,200	28,800	(59,810)		(1,138)	9,014	577,095
 8,975	14,933	(55,860)		(730)	(12,682)	299,489
 10,921	24,678	(42,243)		(929)	6,944	487,901
 13,216	22,690	(14,508)		(951)	47,257	464,830
 17,313	33,618	(33,600)		(1,259)	50,072	659,819
 17,771	48,321	(14,418)	(1,562)	(1,700)	69,302	959,546
 17,473	17,959	(61,015)		(822)	(26,405)	346,971
 14,442	31,799	(93,500)		(1,230)	(8,489)	631,403
 	8,905	(8,550)		(542)	(187)	170,115
	11,188	(9,937)		(610)	1,141	214,323
 15,199	26,269	(22,203)		(1,055)	36,210	523,967
 18,577	49,455	(36,926)		(1,728)	59,975	970,837
 	1,074	(11,143)		(314)	(1,458)	25,166
 	17,007	(73,559)		(788)	(28,670)	315,254
 3,150	9,316	(780)		(551)	14,635	184,100
 9,000	15,082			(719)	33,363	306,407
 	2,814	(1,200)	(14)	(360)	4,240	56,381
 	9,683	(8,010)		(563)	6,004	188,192
 	85,364	(62,393)		(2,804)	94,690	1,698,363
 17,500	53,122	(89,213)		(1,860)	4,410	1,036,133
 ,	114,122	(134,550)		(3,680)	(24,108)	2,176,113
 79,185	211,116	(449,400)		(6,609)	(65,708)	4,125,228
 1,200	93,186	(36,960)		(3,033)	66,878	1,800,099
 3,535	5,415	(- 3/200)		(436)	13,637	110,034
 6,755	5,286	(11,445)		(435)	4,196	108,149
 	1,755,976	(4,464,644)	(1,786)	(56,137)	(1,441,996)	33,277,756

Fiduciary Net Position by Participating Employer | December 31, 2016 continued

	Fiduciary Net Position	Employer	Member	Contribution for Service Reinstate-	Affiliations/
Employer Plan	Dec 31, 2015	Contributions	Contributions	ment	(Withdrawals)
Pueblo Fire (DROP)	\$1,586,031		\$62,756		
Pueblo Police (Old Hire)	49,248,713	\$1,226,430			
Pueblo Rural FPD (Old Hire)	1,829,275	43,733			
Rangely Rural FPD (Volunteer)	580,361	19,840			
Rattlesnake FPD (Volunteer)	998,680	30,817			
Red Feather Lakes FPD (Volunteer)	313,001	15,176			
Red, White & Blue FPD (Old Hire)	239,446	41,896			
Red, White & Blue FPD (Volunteer)	1,261,222				
Ridgway FPD (Volunteer)	638,700	10,000			
Rio Blanco FPD (Volunteer)	4,058,305	394,797			
Rocky Ford Police (Old Hire)	219,302				
Rocky Ford Fire (Volunteer)	84,955	2,411			
Rocky Mountain VFD (Volunteer)	372,623				
Sable Altura FPD (Volunteer)	543,692	5,000			
Salida Fire (Old Hire)	120,241	9,539			
Salida Police (Old Hire)	538,888	66,481			
Sheridan Fire (Volunteer)	343,317	41,000			
Silverton San Juan FRA (Volunteer)	267,102	12,100			
South Adams County FPD (Old Hire)	334,098	290,000			
South Adams County FPD (Volunteer)	6,222,468	267,000			
South Arkansas FPD (Volunteer)	155,974				
South Conejos FPD (Volunteer)	237,545	12,288			
South Metro Fire Rescue (Volunteer)	323,732				
Southwest Washington County FPD (Volunteer)	140,377	10,000			
Springfield Police (Old Hire)	436,059				
Springfield Fire (Volunteer)	144,775	2,199			
Steamboat Springs VFD (Volunteer)	1,291,162	29,000			
Sterling Fire (Old Hire)	692,066	50,937			
Sterling Police (Old Hire)	288,994	50,25.			
Sterling Fire (Volunteer)	393,714	13,881			
Stonewall FPD (Volunteer)	873,712	50,000			
Stratton FPD (Volunteer)	140,145	3,500			
Sugar City Fire (Volunteer)	99,662	3,500			
Sugarloaf FPD (Volunteer)	395,458				
Telluride FPD (Volunteer)	1,841,079	123,000			
Thornton Fire (Old Hire)	4,634,035	123,000			
Thornton Fire (DROP)	205,229		79,769		
Timberline FPD (Volunteer)	1,695,034	15,300	7 3,7 03		
Trinidad Fire (Old Hire)	606,086	72,428			
Trinidad Police (Old Hire)	47,672	8,031			
Walsh VFD (Volunteer)	78,162	2,000			
Wellington FPD (Volunteer)	1,560,002				
West Cheyenne FPD (Volunteer)	148,801	4,000			

State Contributions	Net Investment Income	Benefit Payments	Refunds	Administrative and Pension Expenses	Change in Fiduciary Net Position	Fiduciary Net Position Dec 31, 2016
	\$47,389	•	\$(755,370)		\$(645,225)	\$940,806
	2,495,649	\$(5,571,276)	(238)	\$(77,995)	(1,927,430)	47,321,283
	89,908	(238,963)		(4,841)	(110,163)	1,719,112
 \$5,166	31,342	(45,198)		(1,197)	9,953	590,314
12,600	52,259	(61,538)		(1,829)	32,309	1,030,989
 5,906	15,868	(36,000)		(751)	199	313,200
	10,916	(73,252)		(2,219)	(22,659)	216,787
	64,707	(93,934)		(2,212)	(31,439)	1,229,783
9,000	33,953	(24,600)		(1,282)	27,071	665,771
29,473	232,131	(266,595)		(6,990)	382,816	4,441,121
	9,763	(51,262)		(2,178)	(43,677)	175,625
 1,816	4,679	(1,488)		(414)	7,004	91,959
	18,299	(52,682)		(828)	(35,211)	337,412
	27,978	(39,600)		(1,113)	(7,735)	535,957
	5,805	(27,391)		(2,051)	(14,098)	106,143
	27,004	(129,025)		(2,682)	(38,222)	500,666
 23,194	14,952	(104,220)		(740)	(25,814)	317,503
 8,568	14,471	(12,880)		(704)	21,555	288,657
	18,078	(112,566)	(1,300)	(2,483)	191,729	525,827
 70,506	313,633	(676,250)		(9,769)	(34,880)	6,187,588
	7,641	(19,845)		(508)	(12,712)	143,262
 10,580	12,307	(22,750)		(643)	11,782	249,327
	16,253	(32,220)		(766)	(16,733)	306,999
 2,700	7,975	(6,360)		(510)	13,805	154,182
 	21,808	(44,000)		(2,532)	(24,724)	411,335
 1,979	7,791	(3,420)		(508)	8,041	152,816
 21,600	65,430	(137,865)		(2,243)	(24,078)	1,267,084
	34,136	(112,395)		(2,915)	(30,237)	661,829
	14,871	(18,844)		(2,321)	(6,294)	282,700
 15,026	19,972	(46,520)		(877)	1,482	395,196
 9,450	48,335	(35,540)		(1,702)	70,543	944,255
 3,150	7,623	(3,030)		(502)	10,741	150,886
 ······································	5,165	(6,000)		(431)	(1,266)	98,396
 10,148	20,086	(36,432)		(878)	(7,076)	388,382
 69,156	93,928	(200,317)		(3,078)	82,689	1,923,768
	220,309	(749,075)	(1,300)	(8,795)	(538,861)	4,095,174
 	16,033				95,802	301,031
 16,053	86,514	(161,071)		(2,872)	(46,076)	1,648,958
 	31,425	(108,992)		(3,062)	(8,201)	597,885
	2,079	(18,525)		(1,941)	(10,356)	37,316
 1,000	4,276	(100)		(403)	6,773	84,935
 10,541	79,472	(131,850)		(2,657)	(44,494)	1,515,508
 1,800	8,062	(4,800)		(515)	8,547	157,348
 1,000	0,002	(1,000)		(515)	0,5 17	137,310

Fiduciary Net Position by Participating Employer | December 31, 2016 continued

	Fiduciary					
Employer Plan	Net Position Dec 31, 2015	Employer Contributions	Member Contributions	Reinstate- ment	Affiliations/ (Withdrawals)	
West Douglas County FPD (Volunteer)	\$529,920	\$21,690			(11111111111111111111111111111111111111	
West Metro FPD (Volunteer)	724,333	21,604				
West Routt FPD (Volunteer)	2,599,447	63,747				
Westminster VFD (Volunteer)	2,420,181					
Wet Mountain FPD (Volunteer)	1,747,918	78,442				
Wiggins Rural FPD (Volunteer)	958,989	100,000				
Wiley Rural FPD (Volunteer)	128,532	1,000				
Windsor Severance FPD (Volunteer)	2,709,819	66,249				
Yampa FPD (Volunteer)	421,783	19,687				
Yuma Fire (Volunteer)	525,829	10,000				
Subtotal Affiliated Local Plans	\$1,565,518,261	\$38,970,468	\$156,665			
Contributions Receivable at 12/31/15	261,495	(256,416)	(1,029)			
Contributions Receivable at 12/31/16		455,595	1,055			
Changes in Net Pension Liability	(4,796,424)					
Pension Expense, Current Year						
Total Affiliated Local Plans	\$1,560,983,332	\$39,169,647	\$156,691			
Statewide Death & Disability Plan	\$351,519,816	\$15,045,423	\$3,170,693			
Contributions Receivable at 12/31/15	209,233	(177,393)	(31,840)			
Contributions Receivable at 12/31/16		277,150	93,055			
Changes in Net Pension Liability	(1,076,984)					
Pension Expense, Current Year						
Total Statewide Death & Disability Plan	\$350,652,065	\$15,145,180	\$3,231,908			

State Contributions	Net Investment Income	Benefit Payments	Refunds	Administrative and Pension Expenses	Change in Fiduciary Net Position	Fiduciary Net Position Dec 31, 2016
\$19,521	\$26,401	\$(68,615)		\$(1,069)	\$(2,072)	\$527,848
19,444	36,907	(69,462)		(1,380)	7,113	731,446
 32,500	136,237	(164,589)		(4,320)	63,575	2,663,022
	124,097	(178,710)		(3,988)	(58,601)	2,361,580
24,110	94,154	(105,338)		(3,050)	88,318	1,836,236
45,000	51,882	(46,200)		(1,799)	148,883	1,107,872
	6,885	(2,700)		(481)	4,704	133,236
59,624	137,346	(273,801)		(4,390)	(14,972)	2,694,847
8,175	21,199	(48,720)		(913)	(572)	421,211
9,000	28,027	(19,238)		(1,109)	26,680	552,509
\$2,909,055	\$80,195,810	\$(168,257,048)	\$(918,003)	\$(2,561,689)	\$(49,504,742)	\$1,516,013,519
(4,050)					(261,495)	
37,983					494,633	\$494,633
				322,903	322,903	(4,473,521)
				(500,661)	(500,661)	(500,661)
\$2,942,988	\$80,195,810	\$(168,257,048)	\$(918,003)	\$(2,739,447)	\$(49,449,362)	\$1,511,533,970
	\$17,960,708	\$(26,128,642)	\$(59,172)	\$(761,530)	\$9,227,480	\$360,747,296
					(209,233)	
					370,205	370,205
 				76,837	76,837	(1,000,147)
				(183,499)	(183,499)	(183,499)
	\$17,960,708	\$(26,128,642)	\$(59,172)	\$(868,192)	\$ 9,281,790	\$359,933,855

Fiduciary Net Position by Participating Employer | December 31, 2016 continued

	Fiduciary Net Position	Employer	Member	Contribution for Service Reinstate-	Affiliations/
Employer Plan Statewide Defined Benefit Plan	Dec 31, 2015 \$1,848,724,854	\$40,930,412		<u>ment</u> \$20,412	(Withdrawals)
Statewide Defined Benefit Plan	\$1,040,724,034	340,930,412	\$59,427,866	\$20,412	
	174 522				
(SRA Periodic Payments)	174,533	¢40,020,412	¢50 427 066	620.412	
Subtotal Statewide Defined Benefit Plan Contributions Receivable at 12/31/15	\$1,848,899,387	\$40,930,412	\$59,427,866	\$20,412	
	825,870	(396,806)	(429,064)		
Contributions Receivable at 12/31/16	(5.664.645)	706,553	794,513		
Changes in Net Pension Liability	(5,664,645)				
Pension Expense, Current Year					
Total Statewide Defined Benefit Plan	\$1,844,060,612	\$41,240,159	\$59,793,315	\$20,412	
Statewide Hybrid Plan - DB Component	\$46,309,805	\$1,298,684	\$4,118,336		
Contributions Receivable at 12/31/15	29,364	(21,534)	(7,830)		
Contributions Receivable at 12/31/16	27,304	18,863	6,932		
Changes in Net Pension Liability	(141,883)	10,003	0,732		
Pension Expense, Current Year	(171,005)				
Total Statewide Hybrid Plan - DB Component	\$46,197,286	\$1,296,013	\$4,117,438		
Colorado Springs New Hire Plan - Fire Compone	ent \$123,154,436	\$3,485,586	\$1,045,342	\$38,760	
Colorado Springs New Hire Plan - Fire Compone	ent				
(SRA Periodic Payments)	88,773				
Contributions Receivable at 12/31/15					
Contributions Receivable at 12/31/16		214,810	37,513		
Changes in Net Pension Liability	(377,592)				
Pension Expense, Current Year					
Total Colorado Springs New Hire Plan -					
Fire Component	\$122,865,617	\$3,700,396	\$1,082,855	\$38,760	
Colorado Springs New Hire Plan -					
Police Component	\$264,726,596	\$7,512,099	\$2,628,533		
Colorado Springs New Hire Plan -					
Police Component (SRA Periodic Payments)	476,187				
Contributions Receivable at 12/31/15					
Contributions Receivable at 12/31/16		387,951	79,431		
Changes in Net Pension Liability	(812,527)				
Pension Expense, Current Year					
Total Colorado Springs New Hire Plan -					
Police Component	\$264,390,256	\$7,900,050	\$2,707,964		
FPPA Staff Healthcare Subsidy	\$230,419	\$8,478			
Changes in Net Pension Liability	(706)				
Pension Expense, Current Year					
FPPA Staff Healthcare Subsidy	\$229,713	\$8,478			
Total - Members' Benefit Investment Fund	\$4,189,378,881	\$108,459,923	\$71,090,171	\$59,172	

State Contribution:	Net Investment s Income	Benefit Payments	Refunds	Administrative and Pension Expenses	Change in Fiduciary Net Position	Fiduciary Net Position Dec 31, 2016
	\$101,475,943	\$(59,989,380)	\$(1,813,180)	\$ (3,383,884)	\$136,668,189	\$1,985,393,043
	11.006	(20.500)		(60)	(10.663)	155.071
	11,906	(30,508)	¢(1.013.100)	\$(3,383,944)	(18,662)	155,871 <b>\$1,985,548,914</b>
	\$101,487,849	\$(60,019,888)	\$(1,813,180)	\$(3,383,944)	\$136,649,527	\$1,985,548,914
					(825,870) 1,501,066	1,501,066
				422.911	422,911	(5,241,734)
				(1,273,038)	(1,273,038)	(1,273,038)
	\$101,487,849	\$(60,019,888)	\$(1,813,180)	\$(4,234,071)	\$136,474,596	\$1,980,535,208
	\$101,407,045	\$(00,015,000)	3(1,013,100)	\$(4,254,071)	\$150,474,550	\$1,500,555,200
	\$2,656,991	\$(1,191,766)	\$(17,151)	\$(87,869)	\$6,777,225	\$53,087,030
	1-,	1(1,11,11,11,11,11,11,11,11,11,11,11,11,	4(11,1121)	7(01,000)	(29,364)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
					25,795	25,795
				11,307	11,307	(130,576)
				(43,608)	(43,608)	(43,608)
	\$2,656,991	\$(1,191,766)	\$(17,151)	\$(120,170)	\$6,741,355	\$52,938,641
	\$6,569,905	\$(7,389,735)	\$(167,056)	\$(209,340)	\$3,373,462	\$126,527,898
	6,667	(6,000)		(20)	647	89,420
					252 222	252 222
				26.060	252,323	252,323
				26,969 (64,820)	26,969 (64,820)	(350,623)
				(04,020)	(04,820)	(64,820)
	\$ 6,576,572	\$(7,395,735)	\$(167,056)	\$(247,211)	\$3,588,581	\$126,454,198
	\$14,354,619	\$(11,574,477)	\$(83,530)	\$(451,871)	\$12,385,373	\$277,111,969
	Ç17,55,77	\$(11,577,777)	7(05,550)	7(451,671)	712,303,373	72/7,111,505
	36,285	(18,142)		(140)	18,003	494,190
	,	(:-,:-,		(1.12)		
					467,382	467,382
				59,129	59,129	(753,398)
				(157,454)	(157,454)	(157,454)
	\$14,390,904	\$(11,592,619)	\$(83,530)	\$ (550,336)	\$12,772,433	\$277,162,689
	\$12,207	\$(12,690)	\$(381)	\$7,614	\$238,033	
	712,207	7(12,050)	51	51	(655)	
			(125)	(125)	(125)	
	\$12,207	\$(12,690)	()	\$(455)	\$7,540	\$237,253
	. , -	., ,,				
\$2,942,988	\$223,281,041	\$(274,598,388)	\$(3,058,092)	\$(8,759,882)	\$119,416,933	\$4,308,795,814

Fiduciary Net Position by Participating Employer | December 31, 2016 continued

Members' Self-Directed Investment Fund

Employer Plan	Fiduciary Net Position Dec 31, 2015	Employer Contribution	Member	Contributions for Service Reinstate- ment	Affiliations/ (Withdrawals)
Members' Statewide Money Purchase Plan	\$8,843,444	\$430,687	\$412,362	ment	1
Contributions Receivable at 12/31/15	31,289	(16,022)	(15,267)		
Contributions Receivable at 12/31/16		9,598	9,621		
Total Members' Statewide Money Purchase Plan	\$8,874,733	\$424,263	\$406,716		
Self-Directed Assets for Affiliated Local & DB Sys	tem				
Statewide Defined Benefit Plan (SRA)	\$22,168,604		\$4,272,994		
Statewide Defined Benefit Plan (DROP)	55,176,831		19,480,679		
Statewide Hybrid Plan - MP Component	133,621,296	\$1,632,882	2,459,089		
Statewide Hybrid Plan (DROP)	512,328		248,603		
Colorado Springs New Hire Plan -					
Fire Component (DROP)	5,431,688		2,292,004		
Colorado Springs New Hire Plan -	., . ,		, , , , , ,		
Fire Component (SRA)	14,498				
Colorado Springs New Hire Plan -	,				
Police Component (DROP)	13,368,050		2,807,589		
Colorado Springs New Hire Plan -	, ,		_,,		
Police Component (SRA)	2,434				
Aurora Fire (DROP)	1,937,979		142,374		
Aurora Police (DROP)	1,824,098		,-		
Colorado Springs Fire (DROP)	754,475				
Colorado Springs Police (DROP)	953,977				
Denver Fire (DROP)	6,756,545		95,400		
Denver Police (DROP)	3,952,749		78,791		
Englewood Fire (DROP)	303,452		16,693		
Englewood Police (DROP)	286,208		42,905		
Pueblo Fire (DROP)	659,654		235,200		
Subtotal Self Directed Assets for					
Affiliated Local & DB System	\$247,724,866	\$1,632,882	\$32,172,321		
Contributions Receivable at 12/31/15	138,779	(54,083)	(84,696)		
Contributions Receivable at 12/31/16	,	51,259	108,129		
Total Self-Directed Assets for		- 1,1	,		
Affiliated Local & DB System	\$247,863,645	\$1,630,058	\$32,195,754		
IDC AE7 Deferred Commencer time Disc	¢101 F01 077	¢1 140 335	¢0.262.020		
IRC 457 Deferred Compensation Plan	\$101,591,877	\$1,140,225	\$9,262,038		
Contributions Receivable at 12/31/15	114,145	(4,385)	(109,760)		
Contributions Receivable at 12/31/16	¢101 704 000	26,055	209,612		
Total IRC 457 Deferred Compensation Plan	\$101,706,022	\$1,161,895	\$9,361,890		
Total - Members' Self Directed Investment Fund	\$358,444,400	\$3,216,216	\$41,964,360		
Grand Total - FPPA	\$4,547,823,281	\$111,676,139	\$113,054,531	\$59,172	

State Contribution	Net Investment s Income	Benefit Payments	Refunds	Administrative and Pension Expenses	e Change in Fiduciary Net Position	Fiduciary Net Position Dec 31, 2016
 	\$732,303		\$(247,528)	\$(45,494)	\$1,282,330	\$10,125,774
 					(31,289)	
					19,219	19,219
	\$732,303		\$(247,528)	\$(45,494)	\$1,270,260	\$10,144,993
	\$1,203,676		\$(5,157,185)	\$(76,105)	\$243,380	\$22,411,984
 	3,706,205		(16,632,805)	(187,178)	6,366,901	61,543,732
 	8,286,874		(12,309,715)	(754,006)	(684,876)	132,936,420
 	37,726		(89,465)	(3,072)	193,792	706,120
 	37,720		(05,405)	(3,072)	175,772	700,120
 	314,267		(2,285,681)	(10,165)	310,425	5,742,113
 	668		(6,000)	(19)	(5,351)	9,147
	873,856		(2,572,873)	(21,602)	1,086,970	14,455,020
	82		(2,515)	(1)	(2,434)	_
 	104,240		(53,592)	(2,943)	190,079	2,128,058
 	105,718		(211,067)	(4,909)	(110,258)	1,713,840
 	40,679		(218,665)	(845)	(178,831)	575,644
 	34,556		(3,000)	(1,403)	30,153	984,130
 	284,508		(942,287)	(9,462)	(571,841)	6,184,704
 	160,810		(552,844)	(5,369)	(318,612)	3,634,137
 	29,392		(349,301)	(236)	(303,452)	
 	16,979		(237,358)	(390)	(177,864)	108,344
 	39,344		(114,572)	(1,139)	158,833	818,487
	, .		, , , , , , , , , , , , , , , , , , ,	( , ,	,	
	\$15,239,580		\$(41,738,925)	\$(1,078,844)	\$6,227,014	\$253,951,880
					(138,779)	
					159,388	159,388
	\$15,239,580		\$(41,738,925)	\$(1,078,844)	\$6,247,623	\$254,111,268
	\$7,728,217		\$(7,220,110)	\$(197,499)	\$10,712,871	\$112,304,748
 	\$7,720,217		\$(7,220,110)	(ووج, ۱۶۲)	(114,145)	\$112,504,740
					235,667	235,667
	\$7,728,217		\$(7,220,110)	\$(197,499)	\$10,834,393	\$112,540,415
	77,720,217		7(7,220,110)	Ψ(127)	Ç (C,C)-	7112,370,713
	\$23,700,100		\$(49,206,563)	\$(1,321,837)	\$18,352,276	\$376,796,676
 \$2,942,988	\$246,981,141	\$(274,598,388)	\$(52.264.655)	\$(10,081,719)	\$137,769,209	\$4.685.502.400
<i>₹</i> ∠,₹₹∠,₹00	7240,701,141	(۲۹۰۵٫۵۵۵)	÷(32,204,033)	(۱۷,۱۵۱,/۱۶)	\$137,709,209	\$4,685,592,490

<b>Payments to Consultants</b>	December 31, 2016
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# Fire & Police Members' Benefit Investment Fund

Gabriel Roeder Smith & Co.	\$370,042
Cavanaugh Macdonald Consulting, LLC	62,000
Auditors	
CliftonLarsonAllen LLP	106,300
Paragon Audit & Consulting, Inc.	48,988
Investment Consultants	
Albourne America LLC	400,000
Pension Consulting Alliance	250,000
Bidart & Ross, Inc.	80,000
Subrosa Investigations, LLC	18,670
IW Financial	10,500
Scherzer International Risk Management Background Investigations	6,944
EIRIS Conflict Risk Network	1,000
Legal Counsel	
Jackson Walker LLP	211,405
Stieber Campbell	92,519
Hoffman, Parker, Wilson & Carberry, P.C.	51,528
Ice Miller LLP	21,892
Thomas L. Kanan, Esq.	11,499
SJT Law, LLC	5,945
Legislative Consultants	
Lombard & Clayton	40,000
Management Consultants	
Gallagher Benefit Services, Inc.	20,000
Calhoun Consulting Partners, LLC	16,163
Choose People	11,125
Crescenzo Communications	7,525
Nicoletti-Flater Associates	2,000
Medical Consultant	
Clarence Henke, M.D., PC	53,625
Total Payments To Consultants	\$1,899,670

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# **Schedule of Administrative and Investment Expenses** (With Comparative Totals for 9 Prior Years)

December 31, 2016

# Fire & Police Members' Benefit Investment Fund

Expense Group	2016	2015	2014	2013	
Professional Contracts					
Actuarial Contract	\$367,009	\$412,412	\$292,328	\$288,200	
Audit Fees	105,612	106,109	126,094	61,285	
Computer Maintenance & Lease	508,417	454,390	523,686	532,616	
Insurance & Bonding	165,166	160,289	149,391	138,761	
Legal & Legislative Counsel	113,521	129,382	99,609	244,073	
Management Consulting	68,887	17,064	24,781	6,050	
Medical Exam Fees	243,204	202,733	230,698	184,795	
Hearing Officers - D&D	17,444	7,801	22,028	21,284	
Outside Svcs/Contract Help	106,074	57,324	55,928	77,096	
Records Management	1,595	1,951	6,245	6,220	
Personal Services					
Salaries	\$3,286,289	\$3,036,727	\$3,033,856	\$2,853,094	
Employee Benefits	1,048,276	927,428	1,000,083	851,929	
Employment Programs	38,119	28,005	47,951	18,032	
Total Personnel Services	\$4,372,684	\$3,992,160	\$4,081,890	\$3,723,055	
Staff Education 2	<b></b>	***			
Tuition Assistance Program	\$37,867	\$19,200	\$45,369	\$48,424	
Conferences & Seminars	27,233	26,589	25,932	25,786	

2012	2011	2010	2009	2008	2007
\$288,000	\$324,000	\$272,000	\$453,000	\$301,000	\$246,998
 59,555	57,875	56,220	39,000	37,500	36,000
 494,693	367,028	225,997	344,595	98,328	114,595
 155,438	121,532	158,784	111,335	124,258	128,980
 123,582	141,701	73,035	64,159	100,376	66,129
	21,624	23,375	29,400	277	19,950
 187,797	144,008	157,822	144,441	122,377	136,630
 22,773	23,948	13,625	13,965	9,954	10,402
 39,585	58,411	53,392	54,705	58,599	85,141
6,913	6,366	5,972	5,726	9,899	6,062
\$1,378,336	\$1,266,493	\$1,040,222	\$1,260,326	\$862,568	\$850,887
\$1,378,336	\$1,266,493	\$1,040,222	\$1,260,326	\$862,568	\$850,887
\$1,378,336 \$3,740,834	\$1,266,493 \$3,161,744	\$1,040,222 \$2,952,056	\$1,260,326 \$2,839,136	<b>\$862,568</b> \$2,588,431	\$850,887 \$2,135,055
\$3,740,834	\$3,161,744	\$2,952,056	\$2,839,136	\$2,588,431	\$2,135,055
\$3,740,834 1,128,226	\$3,161,744 888,233	\$2,952,056 829,521	\$2,839,136 747,331	\$2,588,431 640,571	\$2,135,055 517,372
\$3,740,834 1,128,226 18,087	\$3,161,744 888,233 16,980	\$2,952,056 829,521 6,728	\$2,839,136 747,331 22,134	\$2,588,431 640,571 147,601	\$2,135,055 517,372 14,525
\$3,740,834 1,128,226 18,087	\$3,161,744 888,233 16,980	\$2,952,056 829,521 6,728	\$2,839,136 747,331 22,134	\$2,588,431 640,571 147,601	\$2,135,055 517,372 14,525
\$3,740,834 1,128,226 18,087 \$4,887,147	\$3,161,744 888,233 16,980 \$4,066,957	\$2,952,056 829,521 6,728 \$3,788,305	\$2,839,136 747,331 22,134 \$3,608,601	\$2,588,431 640,571 147,601 \$3,376,603	\$2,135,055 517,372 14,525 \$2,666,952

**Schedule of Administrative and Investment Expenses** (With Comparative Totals for 9 Prior Years)

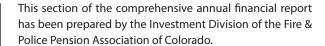
December 31, 2016

# Fire & Police Members' Benefit Investment Fund

Expense Group	2016	2015	2014	2013	
Other Operating Expenses					
Company Vehicles	\$3,523	\$4,105	\$4,244	\$3,815	
Board Expenses	51,682	66,905	56,292	31,017	
Data Processing Supplies	48,961	81,986	76,736	43,268	
Equipment Rental & Maint.	41,712	40,946	35,690	32,413	
Meetings & Travel	18,620	19,503	29,712	14,323	
Operating Exp. Two DTC	117,211	134,161	128,204	106,774	
Other (Misc.)					
Postage	28,664	30,702	22,166	21,775	
Printing & Mailing	61,586	63,476	66,814	80,644	
Retirement Services	18,362	15,047	13,935	10,546	
Subscriptions & Dues	17,904	18,045	16,465	14,817	
Supplies	21,946	27,127	47,471	31,103	
Telephone	8,683	9,793	9,949	13,486	
. c.cp.none	3,000	-,	-,	.5,.55	
Total Other Operating Expense	\$438,854	\$511,796	\$507,678	\$403,981	
Total Operating Expense	\$6,573,567	\$6,099,200	\$6,191,657	\$5,761,626	
Change in Net Pension Liability	¢(020.107)	¢(902.074)			
Depreciation/Amortization Expense	\$(920,107) 884,904	\$(802,974) 865,880	\$869,843	\$821,671	
Delinquency Income					
Definquency income	(1,687)	(30,843)	(4,738)	(22,690)	
Total Administrative Expense	\$6,536,677	\$6,131,263	\$7,056,762	\$6,560,607	
Capital Expenditures	\$596,117	\$339,823	\$470,437	\$126,977	
Total Administrative Expense and Capital	\$7,132,794	\$6,471,086	\$7,527,199	\$6,687,584	
Investment Fees		Å742.00F	÷7.44.005	<b>4770.005</b>	
Investment Consulting	\$756,225	\$743,225	\$746,225	\$779,225	
Investment Mgmt. Fees	31,361,216	30,202,534	26,132,254	24,938,863	
Investment Legal Fees	325,366	252,619	451,784	647,946	
Investment Closing Costs	55,614	106,869	102,850	65,836	
FPPA Investment Personnel Costs	2,518,564	2,375,749	1,667,279	1,416,658	
Bank/Security Lending Fees	800,632	775,499	663,347	799,320	
Other Misc. Investment Expenses Computer Software		129,853	112,157	94,474	
Meetings & Travel / Due Diligence	91,953	130,260	98,009	65,573	
Subscriptions & Dues	11,165	5,375	5,200	5,497	
Printing & Mailing Expense	4,527	4,457	4,763	4,337	
Total Investment Fees	\$36,171,022	\$34,726,440	\$29,983,868	\$28,817,729	

2012	2011	2010	2009	2008	2007
\$3,275	\$4,449	\$5,790	\$3,446	\$4,137	\$4,342
 44,133	27,760	30,504	31,884	47,799	43,355
160,361	81,452	60,189	45,135	115,649	57,136
34,176	26,416	29,078	31,111	37,767	34,154
 11,813	15,607	25,267	20,628	23,217	26,613
81,678	74,930	98,926	80,759	68,920	109,072
	48	500			
39,972	62,299	58,828	57,794	65,460	59,653
64,249	84,172	73,045	68,414	104,161	111,076
6,886	7,224	7,441	9,926	8,032	9,099
16,736	18,497	23,699	21,131	20,320	11,836
16,213	62,152	38,437	40,478	39,697	36,021
12,405	15,150	23,701	28,123	30,655	23,577
\$491,897	\$480,156	\$475,405	\$438,829	\$565,814	\$525,934
\$6,799,606	\$5,853,848	\$5,338,682	\$5,336,344	\$4,860,226	\$4,076,819
 \$808,550	\$784,935	\$777,727	\$166,754	\$124,158	\$120,517
		/=			
\$7,608,156	\$6,638,783	\$6,116,409	\$5,503,098	\$4,984,384	\$4,197,336
\$375,571	\$391,016	\$202,049	\$6,700	\$60,051	\$66,012
\$7,983,727	\$7,029,799	\$6,318,458	\$5,509,798	\$5,044,435	\$4,263,348
\$881,875	\$412,788	\$217,000	\$242,125	\$372,500	\$361,512
 19,963,855	16,457,643	15,142,901	13,399,161	18,610,131	18,443,997
 203,171	79,304	64,736	80,396	10,010,131	41,052
 54,117	26,273	10,000	27,398		71,032
 37,117	20,273	10,000	21,370		
 673,888	633,304	510,865	628,407	1,104,469	807,614
 92,402	48,104	3.0,003	220,107	.,,	007,011
 80,567	54,232				
 4,580	4,255				
5,662	3,025				

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J. Scott Simon, CFA Chief Investment Officer





The mission of the Fire and Police Pension Association 'to prudently investment member retirement funds' is facilitated by the management of various fund investment portfolios, which totaled \$4.686 billion in fair value as of December 31, 2016.

Specifically, the Association is responsible for administering two separate funds:

- The Fire & Police Members' Benefit Investment Fund (\$4.309 billion) defined benefit plans. General Information and data found on the following pages, and
- The Fire & Police Members' Self-Directed Investment Fund (\$377 million) defined contribution plans.



#### **Dear Members:**

The Fire & Police Members' Benefit Investment Fund returned +5.51% (net of fees) in 2016, underperforming its implementation benchmark of +6.13%. The Fund generated \$223 million in net earnings. The total fund has achieved a 9.34% annualized return since its inception.

#### **Market Overview**

The populism movement continued in 2016 highlighted by the surprising political events of the Brexit vote in June and the election of Donald Trump as the U.S. President in November. Previous concerns over a potential slowdown in the US and emerging markets economies eased as risky assets surged in the fourth quarter. The S&P 500 returned 12%, US high-yield bonds appreciated 17% and emerging markets equities were up 11% for 2016. Although the Barclays U.S. Aggregate Bond Index was able to maintain positive performance for year, the bond market lost significant ground in the fourth quarter as expectations of higher interest rates and inflation accompanied the anticipated policies of the new administration. As we enter a new year, the US economy is now beginning its ninth year of expansion and the Federal Reserve is anticipated to continue its gradual pace of interest rate increases.

#### **FPPA Asset Classes**

- Public Equity: Early in 2016, FPPA increased exposure to its global equity allocation through the use of two new systematic strategies. FPPA also increased its exposure to emerging markets through the use of two new systematic strategies. In Q4 2016, FPPA implemented an active currency overlay program for its global equity exposure. While FPPA's public equity portfolio performed in-line with its benchmark, given its global composition, the portfolio did not fare as well when compared to the strong U.S. equity markets. The new currency overlay program and the emerging markets strategies added value for the year.
- Equity Long/Short: On the heels of strong relative 3-year performance, the program had a difficult year with underperformance driven primarily by two managers. Longer-term, the program continues to perform well by providing solid equity performance at a significantly lower risk profile relative to the broader equity markets.
- Fixed Income: While fixed income markets were tracking well for the year, the fourth quarter saw a significant retraction of performance. Although FPPA's fixed income strategies performed relatively well attributable to our unconstrained strategies which are designed to better manage through volatile interest rate environments. FPPA anticipates a further restructuring of its fixed income portfolio in 2017.
- Managed Futures: Since 2014, FPPA has implemented a dedicated allocation to managed futures strategies. These strategies
  are designed to benefit from long-term market trends and provide attractive risk-adjusted and uncorrelated returns relative
  to traditional asset classes. Managed futures strategies had a difficult year attributable to declines in the energy markets and
  the sharp increase of interest rates at year-end.
- Absolute Return: In 2016, manager count was reduced to focus more on high-conviction strategies. One additional merger
  arbitrage strategy was added to the portfolio. The absolute return portfolio performed well in 2016 relative to its policy
  benchmark and broader hedge fund indexes. Global macro strategies were the largest contributors.

• Illiquid Alternatives: In 2016, FPPA committed \$149 million with 7 managers in various private equity, private debt, real estate and real assets strategies. FPPA successfully completed a secondary sale for a portion of its private equity partnership assets. FPPA continued its prudent multi-year process of reaching its long-term allocation target of 25% into these strategies. The aggregate illiquid alternatives portfolio had a solid year of performance but slightly lagged its peer benchmarks.

The Investment Department continues to grow and is now a staff of 11 seasoned professionals. The staff is supported by a strong governance structure of a Board, Investment Committee and Executive Director which continues to provide the resources and flexibility necessary to execute the investment strategy. We look forward to another year of progress with implementing an investment program which will achieve the goals of the plan.

Best regards,

J. Scott Simon, CFA Chief Investment Officer

#### **General Information**

The Members of the Association's Board of Directors serve as the fiduciaries for the Funds and are responsible for the investment of the Funds, or the selection of investment options available to defined contribution, deferred compensation and self-directed DROP plan members. As fiduciaries, the FPPA Board Members are required to discharge their duties solely in the interest of fund participants and beneficiaries. The Board has established investment policies and allocates assets, or selects investment options, based upon member characteristics, plan provisions, and the financial requirements of the Funds, in addition to considering the risk/reward trade-offs of various investments.

The Association has established long range statements of investment objectives and policies for managing and monitoring the Funds. The investment policies establish investment objectives and define the responsibilities of the fiduciaries with respect to the Funds, their investment authority under Colorado law, the level of acceptable risk for investments, investment allocation targets, investment performance objectives, and guidelines within which outside investment managers must operate.

The assets in the Fire & Police Members' Benefit Investment Fund are managed primarily by professional investment management firms. Similarly, investment options offered to defined contribution and deferred compensation plan members are typically pooled investment vehicles managed by professional money managers.

The Association's investment staff coordinates and monitors the investments and fund options, and assists the Board of Directors in the formulation and implementation of investment policies and long-term investment strategies. The investment staff is also responsible for the contents of this section of the annual report. To the extent applicable, investment managers are required to report results in conformance with standards developed by the CFA Institute (CFAI). FPPA utilizes its custodian bank to independently calculate investment performance.

#### **Summary of Investment Objectives**

The Board, in developing long-term investment objectives, investment class allocations and investment guidelines, recognizes that the Fund includes the assets of several different benefit plans, all having a different funded status. The overall objective of the Fund is to balance and prudently manage the investment needs of all plans participating in the Fund, including the need to eliminate current unfunded liabilities and/or to protect surpluses, if possible.

At its July 2015 meeting, the Board of Directors reviewed and approved recommended changes to the actuarial assumptions. The actuarial assumptions reduced the expected inflation from 3.0% to 2.5% and increased the expected real return on assets. Beginning in 2016, over the long-term, the performance objective of the Fund is to achieve a compound real rate of return of on invested assets of 5.0%. The Board expects the objectives to be fulfilled within the levels of risk that a prudent investor would take under similar conditions.

#### **Investment Allocation**

FPPA utilizes an asset liability study as its primary process to establish the overall risk tolerance for the Fund. In establishing Investment Allocation Policy Targets, the Board considers the historical and expected risks and correlations of investment classes in creating a portfolio which reduces risk through investment diversification. The Board conducts a formal asset liability study and investment allocation review at least every 2 years.

The Board establishes and continually updates investment allocation targets. At the end of 2016, the following investment allocation targets were in effect: global equity 36%; equity long/short 10%; fixed income & cash 17%; absolute return 10%; managed futures 4%; and illiquid alternatives 23%.

For the Fire & Police Members' Benefit Investment Fund, as of December 31, 2016, the Association employed the external investment managers listed further in this section.

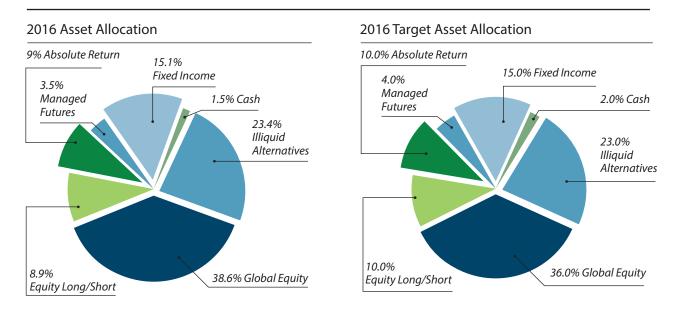
#### **Basis of Presentation**

The assets of the Fire & Police Members' Benefit Investment Fund are presented at fair value based on the asset balances of the investment portfolio. The fair value of assets per the financial statements are reallocated to reflect investment exposures on a trade date basis, to account for cash held within accounts of investment managers, and to

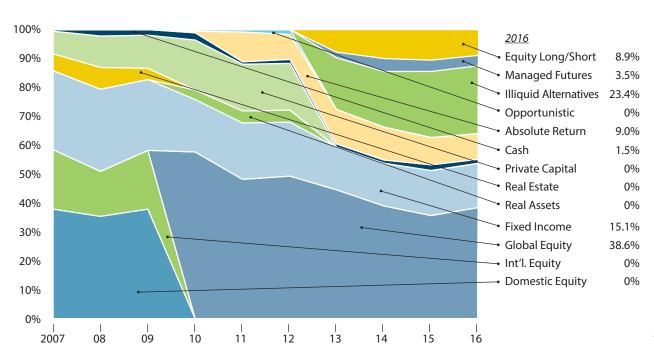
reflect derivatives exposures created with cash collateral. The fair value of assets in the investment portfolio does not include assets of the FPPA operational cash or assets held in the securities lending investment pool.

Performance calculations were prepared using time-weighted rates of return and are net of fees unless otherwise indicated. Returns for periods longer than one year are annualized.

## Asset Allocation



### ■ FPPA Asset Allocation 2007-2016

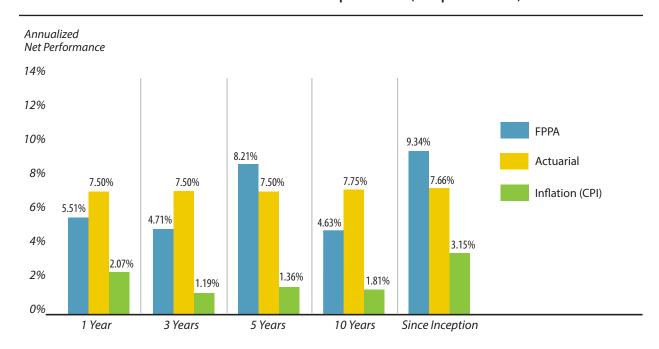


# ■ Investment Summary as of December 31, 2016

	Fair Value Per Financial Statement	Reallocation*	Fair Value Per Investment Portfolio	Percent of Fair Value
Global Equity	\$1,401,071,123	\$258,548,534	\$1,659,619,657	38.6%
Equity Long/Short	382,439,478	2,999,143	385,438,621	8.9%
Fixed Income	760,159,795	(111,723,438)	648,436,357	15.1%
Managed Futures	149,710,915		149,710,915	3.5%
Absolute Return	383,507,769	2,359,254	385,867,023	9.0%
Real Assets	236,471,123		236,471,123	5.5%
Real Estate	200,004,785		200,004,785	4.7%
Private Capital	570,893,680	(202)	570,893,478	13.2%
Investment Cash & Short Term	225,582,807	(159,735,202)	65,847,605	1.5%
Securities Lending Investment Pool	77,397,016	(77,397,016)		0.0%
	\$4,387,238,491	\$(84,948,927)	\$4,302,289,564	100.00%

<sup>\*</sup>The total fair value of the Members' Benefit Investment Fund does not include the physical assets of the Association. Investment receivables, payables, accruals, securities lending and overlay program exposures have been reallocated back to the investment portfolios that hold them.

# ■ Net Performance vs. Inflation and Actuarial Requirements (Inception - 2016)



# **Asset Allocation by Category and Investment Manager**

/lanager	Investment Style	Management Fees	1 Year Net Return %	Total Assets	% of Total Fund Assets
Global Equity					
Allianz Best Styles	Active World Equity	\$369,126	7.00%	\$158,237,971	3.68%
Artio Global Investors <sup>1</sup>	Active EAFE		(2.90%)	4,804	0.00%
Baillie Gifford Overseas	Active Emerging Markets	306,335	3.24%	56,847,026	1.32%
Driehaus	Global Small Cap	689,137	(5.49%)	85,401,464	1.99%
FFTW FX Overlay⁴	Foreign Currency Overlay	23,029	N/A	20,517,302	0.48%
Global Transition Account	MSCI World Index		176.41%	3,987	0.00%
Kayne Anderson Midstream	MLP	311,969	23.05%	35,645,383	0.83%
LSV Asset Management <sup>1</sup>	Active EAFE		(2.90%)	12,768	0.00%
Numeric EM Core⁴	Active Emerging Markets	423,353	N/A	94,543,395	2.20%
Russell US EM Overlay⁴	Emerging Markets	5,338	N/A		0.00%
Russell US Equity Overlay	US Small Cap	94,279	22.38%	127,490,744	2.96
SSGA EDHEC <sup>4</sup>	Active World Equity	66,037	N/A	169,561,248	3.94%
SSGA EM Enhanced⁴	Active Emerging Markets	21,039	N/A	27,305,359	0.63%
SSgA MSCI US	MSCI US	136,139	11.53%	294,067,173	6.84%
SSgA MSCI World <sup>1</sup>	MSCI World Index		N/A	1,206	0.00%
SSgA MSCI World ex. US	MSCI World ex. US	98,256	3.09%	198,880,737	4.62%
Walter Scott	Active World Equity	1,008,803	7.09%	158,269,359	3.68%
Winton Global	Active World Equity	231,473	5.91%	146,796,841	3.41%
Russell	Fund Overlay	191,833	8.25%	86,032,890	2.00%
otal Global Equity	Fund Overlay	191,833 <b>\$3,976,146</b>	8.25%	86,032,890 \$1,659,619,657	
	Fund Overlay  Equity Long/Short		5.87%		35.58%
otal Global Equity quity Long/Short		\$3,976,146		\$1,659,619,657	35.58% 1.13%
otal Global Equity equity Long/Short AKO	Equity Long/Short	<b>\$3,976,146</b> \$708,328	5.87%	\$1,659,619,657 \$48,517,020	35.58% 1.13% 1.05%
otal Global Equity  quity Long/Short  AKO  Anchor Bolt  Conatus Capital	Equity Long/Short Equity Long/Short Equity Long/Short	\$ <b>3,976,146</b> \$708,328 651,044	5.87% (0.45%)	\$1,659,619,657 \$48,517,020 44,922,234	35.58% 1.13% 1.05% 0.04%
equity Long/Short AKO Anchor Bolt Conatus Capital ESG Domestic Opportunity	Equity Long/Short Equity Long/Short Equity Long/Short Equity Long/Short	\$3,976,146 \$708,328 651,044 399,285	5.87% (0.45%) 2.40%	\$1,659,619,657 \$48,517,020 44,922,234 1,843,022	35.58% 1.13% 1.05% 0.04% 0.03%
otal Global Equity  quity Long/Short  AKO  Anchor Bolt  Conatus Capital	Equity Long/Short Equity Long/Short Equity Long/Short Equity Long/Short Equity Long/Short	\$3,976,146 \$708,328 651,044 399,285 423,391 547,172	5.87% (0.45%) 2.40% 1.35%	\$1,659,619,657 \$48,517,020 44,922,234 1,843,022 1,156,121 41,726,301	1.13% 1.05% 0.04% 0.03% 0.97%
equity Long/Short AKO Anchor Bolt Conatus Capital ESG Domestic Opportunity Hitchwood Capital Luxor	Equity Long/Short Equity Long/Short Equity Long/Short Equity Long/Short Equity Long/Short Equity Long/Short	\$3,976,146 \$708,328 651,044 399,285 423,391	5.87% (0.45%) 2.40% 1.35% (7.47%)	\$1,659,619,657 \$48,517,020 44,922,234 1,843,022 1,156,121	1.13% 1.05% 0.04% 0.03% 0.97% 0.44%
equity Long/Short AKO Anchor Bolt Conatus Capital ESG Domestic Opportunity Hitchwood Capital Luxor Pershing Square	Equity Long/Short	\$3,976,146 \$708,328 651,044 399,285 423,391 547,172 463,620 336,141	5.87% (0.45%) 2.40% 1.35% (7.47%) 4.76% (9.10%)	\$1,659,619,657 \$48,517,020 44,922,234 1,843,022 1,156,121 41,726,301 18,964,552 19,752,042	1.13% 1.05% 0.04% 0.03% 0.97% 0.44% 0.46%
equity Long/Short AKO Anchor Bolt Conatus Capital ESG Domestic Opportunity Hitchwood Capital Luxor Pershing Square Rivulet Capital <sup>4</sup>	Equity Long/Short	\$3,976,146 \$708,328 651,044 399,285 423,391 547,172 463,620 336,141 200,102	5.87% (0.45%) 2.40% 1.35% (7.47%) 4.76% (9.10%) N/A	\$1,659,619,657 \$48,517,020 44,922,234 1,843,022 1,156,121 41,726,301 18,964,552 19,752,042 39,959,934	35.58%  1.13% 1.05% 0.04% 0.03% 0.97% 0.44% 0.46% 0.93%
equity Long/Short AKO Anchor Bolt Conatus Capital ESG Domestic Opportunity Hitchwood Capital Luxor Pershing Square Rivulet Capital <sup>4</sup> Sachem Head	Equity Long/Short	\$3,976,146 \$708,328 651,044 399,285 423,391 547,172 463,620 336,141 200,102 515,503	5.87% (0.45%) 2.40% 1.35% (7.47%) 4.76% (9.10%) N/A (0.79%)	\$1,659,619,657 \$48,517,020 44,922,234 1,843,022 1,156,121 41,726,301 18,964,552 19,752,042 39,959,934 29,763,366	1.13% 1.05% 0.04% 0.03% 0.97% 0.44% 0.46% 0.93% 0.69%
equity Long/Short AKO Anchor Bolt Conatus Capital ESG Domestic Opportunity Hitchwood Capital Luxor Pershing Square Rivulet Capital <sup>4</sup>	Equity Long/Short	\$3,976,146 \$708,328 651,044 399,285 423,391 547,172 463,620 336,141 200,102 515,503 869,627	5.87% (0.45%) 2.40% 1.35% (7.47%) 4.76% (9.10%) N/A	\$1,659,619,657 \$48,517,020 44,922,234 1,843,022 1,156,121 41,726,301 18,964,552 19,752,042 39,959,934	1.13% 1.05% 0.04% 0.03% 0.97% 0.44% 0.46% 0.93% 1.04%
iquity Long/Short AKO Anchor Bolt Conatus Capital ESG Domestic Opportunity Hitchwood Capital Luxor Pershing Square Rivulet Capital <sup>4</sup> Sachem Head Senator Global Opportunity	Equity Long/Short	\$3,976,146 \$708,328 651,044 399,285 423,391 547,172 463,620 336,141 200,102 515,503 869,627 729,534	5.87% (0.45%) 2.40% 1.35% (7.47%) 4.76% (9.10%) N/A (0.79%) 2.78% 6.23%	\$1,659,619,657 \$48,517,020 44,922,234 1,843,022 1,156,121 41,726,301 18,964,552 19,752,042 39,959,934 29,763,366 44,859,128 50,853,707	35.58%  1.13% 1.05% 0.04% 0.03% 0.97% 0.44% 0.46% 0.93% 1.04% 1.18%
equity Long/Short AKO Anchor Bolt Conatus Capital ESG Domestic Opportunity Hitchwood Capital Luxor Pershing Square Rivulet Capital <sup>4</sup> Sachem Head Senator Global Opportunity	Equity Long/Short	\$3,976,146 \$708,328 651,044 399,285 423,391 547,172 463,620 336,141 200,102 515,503 869,627	5.87% (0.45%) 2.40% 1.35% (7.47%) 4.76% (9.10%) N/A (0.79%) 2.78%	\$1,659,619,657 \$48,517,020 44,922,234 1,843,022 1,156,121 41,726,301 18,964,552 19,752,042 39,959,934 29,763,366 44,859,128	35.58%  1.13% 1.05% 0.04% 0.03% 0.97% 0.44% 0.46% 0.93% 1.069% 1.18% 1.00%
equity Long/Short AKO Anchor Bolt Conatus Capital ESG Domestic Opportunity Hitchwood Capital Luxor Pershing Square Rivulet Capital <sup>4</sup> Sachem Head Senator Global Opportunity South Point Tessera QP Small Cap	Equity Long/Short	\$3,976,146 \$708,328 651,044 399,285 423,391 547,172 463,620 336,141 200,102 515,503 869,627 729,534 631,840	5.87% (0.45%) 2.40% 1.35% (7.47%) 4.76% (9.10%) N/A (0.79%) 2.78% 6.23%	\$1,659,619,657 \$48,517,020 44,922,234 1,843,022 1,156,121 41,726,301 18,964,552 19,752,042 39,959,934 29,763,366 44,859,128 50,853,707 43,121,194	35.58%  1.13% 1.05% 0.04% 0.03% 0.97% 0.44% 0.46% 0.93% 1.069% 1.18% 1.00%
equity Long/Short AKO Anchor Bolt Conatus Capital ESG Domestic Opportunity Hitchwood Capital Luxor Pershing Square Rivulet Capital <sup>4</sup> Sachem Head Senator Global Opportunity South Point Tessera QP Small Cap Total Equity Long/Short Sixed Income	Equity Long/Short	\$3,976,146 \$708,328 651,044 399,285 423,391 547,172 463,620 336,141 200,102 515,503 869,627 729,534 631,840	5.87% (0.45%) 2.40% 1.35% (7.47%) 4.76% (9.10%) N/A (0.79%) 2.78% 6.23%	\$1,659,619,657 \$48,517,020 44,922,234 1,843,022 1,156,121 41,726,301 18,964,552 19,752,042 39,959,934 29,763,366 44,859,128 50,853,707 43,121,194 \$385,438,621	35.58%  1.13% 1.05% 0.04% 0.03% 0.97% 0.44% 0.46% 0.93% 1.04% 1.18% 1.00% 8.96%
quity Long/Short AKO Anchor Bolt Conatus Capital ESG Domestic Opportunity Hitchwood Capital Luxor Pershing Square Rivulet Capital <sup>4</sup> Sachem Head Senator Global Opportunity South Point Tessera QP Small Cap otal Equity Long/Short ixed Income Fixed Income Impaired	Equity Long/Short	\$3,976,146 \$708,328 651,044 399,285 423,391 547,172 463,620 336,141 200,102 515,503 869,627 729,534 631,840 \$6,475,587	5.87% (0.45%) 2.40% 1.35% (7.47%) 4.76% (9.10%) N/A (0.79%) 2.78% 6.23% 3.65%	\$1,659,619,657 \$48,517,020 44,922,234 1,843,022 1,156,121 41,726,301 18,964,552 19,752,042 39,959,934 29,763,366 44,859,128 50,853,707 43,121,194 \$385,438,621	35.58%  1.13% 1.05% 0.04% 0.03% 0.97% 0.44% 0.46% 0.93% 1.04% 1.18% 1.00% 8.96%
iquity Long/Short AKO Anchor Bolt Conatus Capital ESG Domestic Opportunity Hitchwood Capital Luxor Pershing Square Rivulet Capital <sup>4</sup> Sachem Head Senator Global Opportunity South Point Tessera QP Small Cap iotal Equity Long/Short ixed Income Fixed Income Impaired GSAM Strategic Income	Equity Long/Short Unconstrained Bonds	\$3,976,146 \$708,328 651,044 399,285 423,391 547,172 463,620 336,141 200,102 515,503 869,627 729,534 631,840 \$6,475,587	5.87% (0.45%) 2.40% 1.35% (7.47%) 4.76% (9.10%) N/A (0.79%) 2.78% 6.23% 3.65%	\$1,659,619,657 \$48,517,020 44,922,234 1,843,022 1,156,121 41,726,301 18,964,552 19,752,042 39,959,934 29,763,366 44,859,128 50,853,707 43,121,194 \$385,438,621 \$9,816 117,930,728	35.58%  1.13% 1.05% 0.04% 0.03% 0.97% 0.44% 0.46% 0.93% 1.04% 1.18% 1.00% 8.96% 0.00% 2.74%
quity Long/Short  AKO  Anchor Bolt  Conatus Capital  ESG Domestic Opportunity  Hitchwood Capital  Luxor  Pershing Square  Rivulet Capital <sup>4</sup> Sachem Head  Senator Global Opportunity  South Point  Tessera QP Small Cap  otal Equity Long/Short  ixed Income  Fixed Income  Manulife	Equity Long/Short Unconstrained Bonds Unconstrained Bonds	\$3,976,146 \$708,328 651,044 399,285 423,391 547,172 463,620 336,141 200,102 515,503 869,627 729,534 631,840 \$6,475,587	5.87% (0.45%) 2.40% 1.35% (7.47%) 4.76% (9.10%) N/A (0.79%) 2.78% 6.23% 3.65%	\$1,659,619,657 \$48,517,020 44,922,234 1,843,022 1,156,121 41,726,301 18,964,552 19,752,042 39,959,934 29,763,366 44,859,128 50,853,707 43,121,194 \$385,438,621 \$9,816 117,930,728 79,294,114	35.58%  1.13% 1.05% 0.04% 0.03% 0.97% 0.44% 0.46% 0.93% 1.18% 1.00% 8.96%  0.00% 2.74% 1.84%
equity Long/Short AKO Anchor Bolt Conatus Capital ESG Domestic Opportunity Hitchwood Capital Luxor Pershing Square Rivulet Capital <sup>4</sup> Sachem Head Senator Global Opportunity South Point Tessera QP Small Cap otal Equity Long/Short ixed Income Fixed Income Impaired GSAM Strategic Income Manulife PriVest	Equity Long/Short Unconstrained Bonds Unconstrained Bonds Investment Grade Bonds	\$3,976,146 \$708,328 651,044 399,285 423,391 547,172 463,620 336,141 200,102 515,503 869,627 729,534 631,840 \$6,475,587 \$575,910 286,221 128,190	5.87% (0.45%) 2.40% 1.35% (7.47%) 4.76% (9.10%) N/A (0.79%) 2.78% 6.23% 3.65%  2.39% 4.15% 4.19%	\$1,659,619,657 \$48,517,020 44,922,234 1,843,022 1,156,121 41,726,301 18,964,552 19,752,042 39,959,934 29,763,366 44,859,128 50,853,707 43,121,194 \$385,438,621 \$9,816 117,930,728 79,294,114 42,798,049	35.58%  1.13% 1.05% 0.04% 0.03% 0.97% 0.44% 0.46% 1.18% 1.00% 8.96% 0.00% 2.74% 1.84% 0.99%
iquity Long/Short AKO Anchor Bolt Conatus Capital ESG Domestic Opportunity Hitchwood Capital Luxor Pershing Square Rivulet Capital <sup>4</sup> Sachem Head Senator Global Opportunity South Point Tessera QP Small Cap iotal Equity Long/Short ixed Income Fixed Income Impaired GSAM Strategic Income Manulife PriVest Prudential ABS Return	Equity Long/Short Unconstrained Bonds Unconstrained Bonds Unconstrained Bonds Unconstrained Bonds	\$3,976,146 \$708,328 651,044 399,285 423,391 547,172 463,620 336,141 200,102 515,503 869,627 729,534 631,840 \$6,475,587 \$575,910 286,221 128,190 531,109	5.87% (0.45%) 2.40% 1.35% (7.47%) 4.76% (9.10%) N/A (0.79%) 2.78% 6.23% 3.65%  2.39% 4.15% 4.19% 5.07%	\$1,659,619,657  \$48,517,020 44,922,234 1,843,022 1,156,121 41,726,301 18,964,552 19,752,042 39,959,934 29,763,366 44,859,128 50,853,707 43,121,194 \$385,438,621  \$9,816 117,930,728 79,294,114 42,798,049 116,948,102	35.58%  1.13% 1.05% 0.04% 0.03% 0.97% 0.44% 0.46% 0.93% 1.04% 1.18% 1.00% 8.96% 0.00% 2.74% 1.84% 0.99% 2.72%
equity Long/Short AKO Anchor Bolt Conatus Capital ESG Domestic Opportunity Hitchwood Capital Luxor Pershing Square Rivulet Capital <sup>4</sup> Sachem Head Senator Global Opportunity South Point Tessera QP Small Cap otal Equity Long/Short ixed Income Fixed Income Impaired GSAM Strategic Income Manulife PriVest	Equity Long/Short Unconstrained Bonds Unconstrained Bonds Investment Grade Bonds	\$3,976,146 \$708,328 651,044 399,285 423,391 547,172 463,620 336,141 200,102 515,503 869,627 729,534 631,840 \$6,475,587 \$575,910 286,221 128,190	5.87% (0.45%) 2.40% 1.35% (7.47%) 4.76% (9.10%) N/A (0.79%) 2.78% 6.23% 3.65%  2.39% 4.15% 4.19%	\$1,659,619,657 \$48,517,020 44,922,234 1,843,022 1,156,121 41,726,301 18,964,552 19,752,042 39,959,934 29,763,366 44,859,128 50,853,707 43,121,194 \$385,438,621 \$9,816 117,930,728 79,294,114 42,798,049	35.58%  1.13% 1.05% 0.04% 0.03% 0.97% 0.44% 0.46% 1.18% 1.00% 8.96%  0.00% 2.74% 1.84% 0.99% 2.72% 6.15%

# **Investment Section** Fire & Police Members' Benefit Investment Fund continued

Asset Class Manager	Investment Style	Management Fees	1 Year Net Return %	Total Assets	% of Total Fund Assets
Managed Futures					
AHL Pure Momentum⁴	Hedge Fund	\$269,574	N/A	\$37,420,000	0.87%
Blue Trend	Hedge Fund	479,600	(10.97%)	28,824,028	0.67%
Fulcrum Multi-Asset Trend <sup>2</sup>	Hedge Fund	31,374	N/A		0.00%
Graham Tactical Trend	Hedge Fund	234,427	(12.02%)	37,179,491	0.86%
Winton Diversified Futures	Hedge Fund	471,371	0.70%	46,287,396	1.08%
Total Managed Futures		\$1,486,346		\$149,710,915	3.48%
Absolute Return					
Alphadyne Global	Hedge Fund	\$480,834	1.73%	\$25,677,294	0.60%
AQR Delta II	Hedge Fund	525,760	2.06%	54,147,462	1.26%
AQR SPF	Hedge Fund	340,346	(0.89%)	34,249,297	0.80%
Arrowgrass <sup>4</sup>	Hedge Fund	156,541	N/A	20,128,720	0.47%
Autonomy Global Macro	Hedge Fund	569,036	25.23%	30,429,259	0.71%
НВК	Hedge Fund	756,815	8.67%	52,572,398	1.22%
Hutchin Hill	Hedge Fund	839,382	4.97%	49,923,667	1.16%
MKP Opportunity	Hedge Fund	685,649	3.84%	47,962,963	1.11%
Pharo Macro	Hedge Fund	767,943	7.47%	39,958,031	0.93%
Samlyn Onshore	Hedge Fund	239,159	(4.72%)	2,359,254	0.05%
Soroban	Hedge Fund	399,734	4.99%	28,458,678	0.66%
Trient Global <sup>2</sup>	Hedge Fund	158,778	N/A		0.00%
Total Absolute Return		\$5,919,977		\$385,867,023	8.97%
Real Assets					
Arclight Capital V	Energy Infrastructure	\$175,479	5.32%	\$11,298,617	0.26%
Broadriver II⁵	Life Settlements	(878,226)	N/M	22,430,000	0.52%
Capital Royalty II	Diversified Private Credit	182,951	13.68%	12,191,396	0.28%
EIG Real Assets XV	Energy Infrastructure	178,121	8.92%	11,427,908	0.27%
EIG Real Assets XVI	Energy Infrastructure	139,719	17.88%	9,309,631	0.22%
Energy Capital Partners II	Energy Infrastructure	19,339	(16.07%)	6,668,902	0.16%
Energy Capital Partners III <sup>5</sup>	Energy Infrastructure	163,105	N/M	5,827,878	0.14%
Enervest Fund XII	Oil & Gas	(4,355)	(7.13%)	13,998,034	0.33%
Enervest Fund XIII-A	Oil & Gas	••••	(19.48%)	6,473,348	0.15%
Freestone Series 1⁵	Diversified Real Assets	1,580,908	N/M	48,975,669	1.14%
Iberia Credit II <sup>5</sup>	Diversified Private Credit		N/M	5,289,719	0.12%
Petroleum Equity Rho⁵	Oil & Gas		N/M	11,582,705	0.27%
Riverrock Euro II⁵	Diversified Private Credit		N/M	4,235,977	0.10%
Raven I	Asset Backed Lending	131,351	(0.91%)	7,023,315	0.16%
Raven III <sup>5</sup>	Asset Backed Lending	337,364	N/M	5,217,281	0.12%
Scout I-B	Oil & Gas	271,519	14.45%	10,473,668	0.24%
Scout II-B <sup>5</sup>	Oil & Gas	450,000	N/M	34,342,368	0.80%
Scout III-B <sup>5</sup>	Oil & Gas	150,000	N/M	7,012,652	0.16%
Valuation Adjustment <sup>7</sup>				2,692,055	0.06%
Total Real Assets		\$2,897,275		\$236,471,123	5.50%

# **Investment Section** ■ Fire & Police Members' Benefit Investment Fund continued

# Asset Allocation by Category and Investment Manager continued

Asset Class Manager	Investment Style	Management Fees	1 Year Net Return %	Total Assets	% of Tota Fund Assets	
Real Estate						
Blackrock Diamond <sup>6</sup>	Value Added	\$4,513	N/A	\$38,733	0.00%	
Blackstone RE VI	Opportunistic	90,167	5.70%	8,453,781	0.20%	
Blackstone RE VII	Opportunistic	164,918	10.09%	13,650,490	0.32%	
Blackstone RE VIII⁵	Opportunistic	413,702	N/M	11,581,000	0.27%	
Dune Real Estate Fund I <sup>3</sup>	Opportunistic	54,888	(8.39%)		0.00%	
Dune Real Estate Fund II <sup>3</sup>	Opportunistic	85,298	(4.52%)		0.00%	
H/2 Real Estate	Distressed Debt	174,354	16.54%	9,566,034	0.22%	
JP Morgan	Core	686,470	7.31%	71,293,564	1.66%	
Morgan Stanley	Core	358,619	9.26%	33,115,800	0.77%	
Pauls REO 2012	Real Estate Debt	60,303	1.26%	2,074,843	0.05%	
Pauls REO 2014⁵	Real Estate Debt	120,786	N/M	5,886,608	0.14%	
PRISA	Core	311,532	7.99%	36,513,482	0.85%	
RREEF	Core		(2.75%)	27,276	0.00%	
Square Mile Partners III	Opportunistic	1,276	5.92%	1,625,320	0.04%	
Velocis II⁵	Value Added	236,162	N/M	5,475,235	0.13%	
Valuation Adjustment <sup>7</sup>				702,619	0.02%	
Total Real Estate		\$2,762,988		\$200,004,785	4.67%	

# **Investment Section** Fire & Police Members' Benefit Investment Fund continued

# Asset Allocation by Category and Investment Manager continued

Asset Class Manager	Investment Style	Management Fees	1 Year Net Return %	Total Assets	% of Tota Fund Assets
rivate Capital					
Alchemy Special III⁵		\$67,412	N/M	\$2,610,453	0.06%
American Securities Partners VI			12.73%	18,097,452	0.42%
Ascribe Opportunity Fund II		112,964	5.11%	7,480,364	0.17%
Ascribe Opportunity Fund III <sup>5</sup>		216,507	N/M	8,987,284	0.21%
Birch Hill Equity Partners (US) III <sup>3</sup>		4,552	24.11%		0.00%
Blackstone Capital Partners V <sup>3</sup>		11,564	(12.67%)		0.00%
Bowmark Capital Partners IV		105,068	(3.05%)	7,217,948	0.17%
Capital Partners Income II		168,209	11.78%	12,292,093	0.29%
Catterton Partners V		19,091	(0.31%)	2,168,566	0.05%
Catterton Partners VI		65,871	(1.12%)	5,318,245	0.12%
Catterton Partners VII		244,555	(0.11%)	16,237,556	0.38%
Center Lane III		12,388	10.54%	6,885,926	0.16%
Coller International Partners IV			(28.62%)	56,509	0.00%
Coller International Partners V		26,463	(12.96%)	1,578,524	0.04%
Commonfund Capital Venture Part	tners IX	81,249	6.47%	19,561,752	
Commonfund Capital Venture Part		65,000	7.38%	10,859,910	
CVC European Equity Partners III			2.53%	273,619	
CVC European Equity Partners IV		(788,191)	(5.15%)	1,360,320	
CVC European Equity Partners V		21,834	24.58%	6,913,028	
Doughty Hanson III			66.61%	2,405,118	
Dyal Capital II <sup>5</sup>		53,748	N/M	2,763,101	0.06%
Endeavour Capital IV		219	27.59%	125,229	
Endeavour Capital VI		119,131	9.97%	8,914,353	
Endeavour Capital VII <sup>5</sup>		186,712	N/M	3,742,489	
Energy & Minerals Group II		156,815	(4.40%)	18,881,191	0.44%
Energy & Minerals Group III <sup>5</sup>		230,488	N/M	13,345,793	
Enhanced Equity II	• • • • • • • • • • • • • • • • • • • •	196,615	(53.32%)	3,873,769	
Ethos Private Equity VI <sup>3</sup>	• • • • • • • • • • • • • • • • • • • •	91,754	N/A	3,0,3,,0,	0.00%
GBOF IV		97,466	5.58%	8,505,635	
Granite Global Ventures II <sup>3</sup>		23,928	(4.59%)	0,505,055	0.00%
Granite Global Ventures III <sup>3</sup>		52,069	(5.17%)		0.00%
Grey Mountain III		189,290	(5.76%)	8,082,570	
HIG Bayside Opportunities Fund II		183,515	(2.11%)	9,042,267	
HIG Middle Market II <sup>5</sup>		150,000	N/M	1,878,214	
High Road Capital Partners		45,352	(3.49%)	8,399,580	
High Road Capital Partners II		244,827	21.79%	6,219,757	
Insight Venture Parnters VII			6.63%	10,278,536	
		121,347			
JH Whitney VII		(175,829)	13.17%	18,640,691	0.43%
JMI Equity V <sup>3</sup>		11,196	(9.21%)	929,668	0.00%
JMI Equity VI		127,918	19.00%		
JMI Equity VII		211,439	8.45%	11,020,815	
Kayne Anderson Energy III			(13.66%)	270,872	
Kayne Anderson Energy IV		40.255	(14.04%)	992,403	
Kayne Anderson Energy VI		49,255	22.00%	8,626,260	
Kelso Investment Assoc VIII		106,799	(3.20%)	9,476,016	
KPS Special Situations III		36,759	29.46%	5,213,804	
Larimer Ventures II			56.82%	11,064	
LNK Partners <sup>3</sup>	:::::::::::::::::::::::::::::::::::::::	33,308	(39.29%)		0.00%
Mayfair <sup>5</sup>			N/M	4,689,106	0.11%

# Asset Allocation by Category and Investment Manager continued

OTAL FEES & ASSETS	\$31,361,216	5.51%	\$4,302,289,564	100.00%
Annual Accrual Adjustment	160,559			
Cash account & Short Term BNY/Mellon Bank		0.51%	\$65,847,605	1.53%
otal Private Capital	\$6,085,085		\$570,893,478	13.24%
Valuation Adjustment <sup>7</sup>		• • • • • • • • • • • • • • • • • • • •	8,263,837	0.199
PE Stock Distribution Account			111	0.009
Veritas Capital V <sup>5</sup>	47,128	N/M	14,558,541	0.349
Veritas Capital IV		32.39%		0.29%
Ufenau IV⁵		N/M	1,188,887	0.039
Ufenau IV⁵	343,215	N/M	9,178,428	0.219
Transom II <sup>5</sup>	472,224	N/M	9,996,764	0.239
TPG Growth II	120,374	12.54%		0.319
Thomas, McNerney & Partners II	47,003	31.73%		0.089
Thomas, McNerney & Partners		(23.28%)		0.059
TCV VIII⁵	281,250	N/M	12,143,072	0.289
TCV VII	89,598	38.36%		0.21
TA XI	118,945	26.70%		0.169
SVB Venture Overage⁵	116,824	N/M	7,416,733	0.17
Siguler Guff <sup>5</sup>	129,273	N/M	3,560,440	0.080
SIF VII <sup>5</sup>	115,624	N/M	3,400,415	0.089
SIF IV	165,002	3.00%		0.429
Rosemont Partners III	300,000	(14.28%		0.13
Roark Capital Partners IV <sup>5</sup>	134,355	N/M	5,625,237	0.13
Roark Capital Partners III	55,868	10.40%		0.24
Roark Capital Partners II		44.66%		0.45
Raine Partners II <sup>5</sup>	300,000	N/M	7,722,997	0.18
Permira Europe IV <sup>3</sup>	29,540	305.27%		0.00
Palladium Equity IV <sup>5</sup>	159,100	N/M	9,649,943	0.22
Oxford Bioscience Partners V <sup>3</sup>	18,175	N/A	, , , , , , , , , , , , , , , , , , , ,	0.00
Oxford Bioscience Partners IV	2,178	(69.54%)		0.00
OSP Value <sup>5</sup>	300,000	N/M	25,432,013	0.59
OHA Strategic Credit Fund II	123,700	33.78%		0.02
Nordic Capital VIII	123,768	12.66%		0.27
Nordic Capital VII	101,845	8.73%		0.00
Nordic Capital VI	32,253	(11.20%)		0.00
NGP Natural Resources X	114,163	30.86%		0.20
New Enterprise Associates XIII	81,092	18.45%		0.02
Nautic Partners VIII <sup>5</sup>	(1,103,003)	N/M	823,482	0.10
Nautic Partners VII <sup>5</sup>	(1,105,005)	N/M	7,600,585	0.03
Nautic Partners VI	321,000	30.78%		0.10
MVM IV <sup>5</sup>	321,000	N/M	4,202,879	0.12
MVM III	69,537	(8.46%	) 5,345,286	0.12

<sup>\*</sup>The total fair value of the Members' Benefit Investment Fund does not include physical assets of the Association, assets in the Association's operational cash account, receivable and payables of the Association, and assets held in the securities lending investment pool.

<sup>1.</sup> Manager terminated in 2010

<sup>2.</sup> Manager terminated in 2016

<sup>3.</sup> Secondary sale 2016

<sup>4.</sup> Manager hired in 2016, no one year return.

 $<sup>5.\</sup> N/M = Not\ Meaningful.\ FPPA\ does\ not\ report\ returns\ for\ illiquid\ partnerships\ investments\ with\ less\ than\ 36\ months\ of\ history.$ 

<sup>6.</sup> Manager in liquidation.

<sup>7.</sup> See Note 2.C. Summary of Significant Accounting Policies, within the Financial Statements

# ■ Top 20 Equity Holdings

Fair Value	
\$14,727,208	
13,391,108	
10,601,509	
7,961,550	
7,938,766	
7,483,567	
7,377,130	
7,096,694	
6,324,382	
6,278,662	
6,273,430	
6,242,834	
6,211,107	
6,202,642	
5,906,615	
5,536,539	
5,508,046	
5,452,259	
5,388,982	
5,323,107	
	\$14,727,208  13,391,108  10,601,509  7,961,550  7,938,766  7,483,567  7,377,130  7,096,694  6,324,382  6,278,662  6,273,430  6,242,834  6,211,107  6,202,642  5,906,615  5,536,539  5,508,046  5,452,259  5,388,982

The top 20 holdings exclude commingled funds. A complete list of holdings is available upon request.

# ■ Top 20 Fixed Income Holdings

Company	Desc	cription	Fair Value	
JAPAN TREASURY DISCOUNT BILL	0.00%	02/06/2017	\$22,307,139	
U S TREASURY NOTE	VAR RT	07/31/2017	13,007,410	
U S TREASURY NOTE	VAR RT	04/30/2018	9,516,625	
U S TREASURY NOTE	0.75%	04/15/2018	8,932,314	
U S TREASURY NOTE	0.875%	01/15/2018	8,855,836	
U S TREASURY NOTE	100%	03/15/2019	8,355,396	
U S TREASURY NOTE	0.625%	09/30/2017	8,348,212	
U S TREASURY NOTE	VAR RT	10/31/2018	8,200,738	
U S TREASURY NOTE	VAR RT	01/31/2018	8,022,960	
U S TREASURY NOTE	0.50%	07/31/2017	7,752,085	
U S TREASURY NOTE	0.75%	10/31/2017	6,654,006	
U S TREASURY NOTE	2.00%	12/31/2021	6,062,167	
JAPANESE GOVERNMENT CPI LINKED	0.10%	03/10/2026	2,776,345	
MEXICO CETES		06/08/2017	2,552,419	
NORDEA HYPOTEK AB	3.50%	01/18/2017	2,334,657	
FHLMC MULTICLASS MTG K039 A2	3.303%	07/25/2024	2,287,406	
PROVINCE OF ONTARIO CANADA	1.20%	02/14/2018	1,995,480	
SPECIALTY UNDERWRITING BC2 A1	VAR RT	05/25/2035	1,904,630	
PROVINCE OF QUEBEC CANADA	2.625%	02/13/2023	1,814,471	
MEXICO CETES	0.00%	03/16/2017	1,799,036	

# ■ Performance Summary as of December 31, 2016

Series Name Benchmark Indices	4Q return Percentage	1 year return Percentage	Annualized 3 year return Percentage	Annualized 5 year return Percentage
FPPA Total Fund - Gross of Fees	1.38%	6.31%	5.48%	8.91%
FPPA Total Fund - Net of Fees	1.12%	5.51%	4.71%	8.21%
Custom Total Fund Benchmark <sup>1</sup>	1.55%	8.05%	4.54%	8.42%
Public Fund Median (BNY/Mellon)	0.73%	7.84%	4.87%	8.48%
Global Public Equity Accounts - Gross of Fees	1.34%	8.79%	4.07%	10.36%
Global Public Equity Accounts - Net of Fees	1.25%	8.51%	3.85%	10.12%
MSCI ACWI IMI w/USA Gross	1.38%	8.96%	3.79%	10.20%
Equity Long/Short - Gross of Fees	1.64%	2.59%	3.57%	N/A
Equity Long/Short - Net of Fees	0.86%	1.00%	2.00%	N/A
HFRI Equity Hedge	1.30%	5.51%	2.08%	N/A
Fixed Income Accounts - Gross of Fees	(1.28%)	3.56%	2.66%	2.44%
Fixed Income Accounts - Net of Fees	(1.35%)	3.31%	2.41%	2.21%
Barclays Capital U.S. Aggregate Index	(2.98%)	2.65%	3.03%	2.23%
Managed Futures - Gross of Fees	(3.66%)	(6.82%)	3.27%	N/A
Managed Futures - Net of Fees	(4.15%)	(7.72%)	2.29%	N/A
Barclays Hedge BTOP 50 Index	(3.05%)	(4.88%)	1.91%	N/A
Absolute Return - Gross of Fees	3.46%	6.34%	4.83%	5.32%
Absolute Return - Net of Fees	2.68%	4.75%	3.23%	3.92%
90 Day T-Bill + 400bps	1.05%	4.27%	4.11%	4.09%
Total Illiquid Alternative - Gross of Fees <sup>2</sup>	3.26%	8.30%	12.94%	14.54%
Total Illiquid Alternative - Net of Fees <sup>2</sup>	3.05%	7.01%	11.50%	13.23%
Private Capital Accounts - Gross of Fees	3.11%	8.19%	15.18%	16.60%
Private Capital Accounts - Net of Fees	2.98%	7.06%	13.72%	15.33%
Real Asset Accounts - Gross of Fees	3.91%	8.85%	5.15%	8.11%
Real Asset Accounts - Net of Fees	3.67%	7.01%	3.38%	6.27%
Real Estate Accounts - Gross of Fees	2.94%	8.69%	12.83%	13.82%
Real Estate Accounts - Net of Fees	2.54%	7.33%	11.63%	12.68%
MSCI ACWI IMI w/US Gross + 200bps Lagged	6.04%	14.63%	7.57%	13.22%
Comparative Benchmarks				
ILPA All Funds	3.65%	8.00%	10.42%	11.97%
NCREIF NFI-ODCE Index	1.88%	7.79%	11.04%	11.16%
Actuarial Rate	1.83%	7.50%	7.50%	7.50%

Returns were calculated using time-weighted rates of return adjusted for significant cash flows (5% of the portfolio or greater) or the Modified-Dietz method.

<sup>1.</sup> Composite of the index benchmark returns of each asset class multiplied by their target asset allocations.

<sup>2.</sup> The majority of Illiquid Alternative accounts are reported on a quarter lag.

# ■ Schedule of Brokerage Commissions

Broker Name	Total Commission	Shares Traded	Per Share
DEUTSCHE BK INTL EQ, LONDON	\$15,908	21,057,057	0.001
STATE STREET BK & TR CO, LONDON	39,102	16,042,437	0.002
JBS WARBURG ASIA LTD, HONG KONG	4,597	11,300,590	0.000
GOLDMAN SACHS INTL, LONDON	7,075	9,291,424	0.001
REDIT SUISSE, LONDON	11,460	7,522,413	0.002
MIZUHO SECURITIES USA INC. NEW YORK	7,111	5,399,552	0.001
MORGAN STANLEY & CO INC, NY	15,355	5,320,649	0.003
GOLDMAN SACHS & CO, NY	9,981	4,838,228	0.002
CREDIT LYONNAIS SECS, HONG KONG	2,962	4,802,257	0.001
DEUTSCHE BK SECS INC, NY	7,323	4,576,828	0.002
DAIWA SECS LTD, HONG KONG	2,648	4,446,076	0.001
P MORGAN SECS LTD, LONDON	8,762	4,032,994	0.002
ROYAL BANK OF CANADA EUROPE LTD, LONDON	10,948	3,442,897	0.003
MACQUARIE SECURITIES LIMITED, HONG KONG	1,052	3,245,563	0.000
JBS SECURITIES LLC, STAMFORD	6,093	2,901,699	0.002
CREDIT SUISSE, NEW YORK	9,088	2,775,445	0.002
JBS WARBURG, LONDON	4,924	2,331,306	0.003
MERRILL LYNCH GILTS LTD, LONDON	9,617	2,293,213	0.002
MERRILL LYNCH INTL LONDON EOUITIES	3,539	2,221,973	0.004
P. MORGAN SECURITIES, HONG KONG	465		0.002
TATE STREET BANK & TRUST CO, BOSTON	12,685	1,948,887	0.007
P. MORGAN CLEARING CORP. NEW YORK	***************************************	1,777,240	
	4,800	1,467,206	0.003
G SEC LTD, LONDON	4,232	1,394,996	0.003
CITIGROUP GLOBAL MARKETS LTD, LONDON	4,352	1,064,975	0.004
MACQUARIE BANK LTD, HONG KONG	2,382	1,034,746	0.002
BLOOMBERG TRADEBOOK, LONDON	4,870	894,604	0.005
CITIGROUP GBL MKTS/SALOMON, NEW YORK	2,572	887,212	0.003
NSTINET EUROPE LIMITED, LONDON	6,416	867,367	0.007
NVESTMENT TECHNOLOGY GROUP LTD, DUBLIN	5,344	832,933	0.006
BARCLAYS CAPITAL, LONDON	5,240	818,818	0.006
NSTINET AUSTRALIA CLEARING SERV, SYDNEY	2,027	818,688	0.002
P MORGAN SEC, SYDNEY	744	814,656	0.001
XANE, PARIS	577	655,171	0.001
AREL, PARIS	12,995	654,319	0.020
TATE ST BK & TR CO/SAFEKEEPING, N QUINC	1,128	635,406	0.002
TG HONG KONG LIMITED, HONG KONG	1,162	603,612	0.002
SOCIETE GENERALE LONDON BRANCH, LONDON	2,818	542,650	0.005
RBC DOMINION SECS INC, TORONTO	7,567	487,907	0.016
EFFERIES & CO INC, NEW YORK	3,814	484,223	0.008
INP PARIBAS SECURITIES SVCS, HONG KONG	469	470,030	0.001
JBS SECURITIES CANADA, TORONTO	1,067	469,411	0.002
REDIT LYONNAIS SECS, SINGAPORE	2,362	450,887	0.005
NIGHT CAPITAL EUROPE LTD, LONDON	1,679	395,536	0.004
DAIWA SECS AMER INC, NEW YORK	7,649	394,745	0.019
JBS WARBURG AUSTRALIA EQUITIES, SYDNEY	1,155	390,770	0.003
VENSKA HANDELSBANKEN, STOCKHOLM	9,881	354,597	0.028
COTIA CAPITAL MKTS, TORONTO	3,028	354,408	0.009
MERRILL LYNCH PIERCE FENNER SMITH INC NY	36,713	342,942	0.107
CITIGROUP GBL MKTS INC, NEW YORK	1,407	336,572	0.004
TG AUSTRALIA LTD, MELBOURNE	1,144	315,670	0.004
All Other Brokers	120,788	6,678,037	0.018
- Total	\$451,077	147,481,822	0.003

#### **General Information**

## **Summary of the Fund's Objectives**

Members of the Self-Directed Investment Fund direct their contributions to one or more of the investment options selected by the Self-Directed Plans Committee pursuant to the fund structure approved by the Board of Directors or investment options available through a Self-Directed Brokerage Account administered by FPPA's record keeper. It is the Self-Directed Plans Committee's intent to select well-managed funds, across diversified asset classes, as investment options for members participating in the plans. In doing so, the Board acts pursuant to the requirements of Colorado law governing its selection of investment options for such members, and pursuant to the Fund's master statement of investment policies and objectives, while at the same time seeking to delegate its fiduciary liability to the extent prudent.

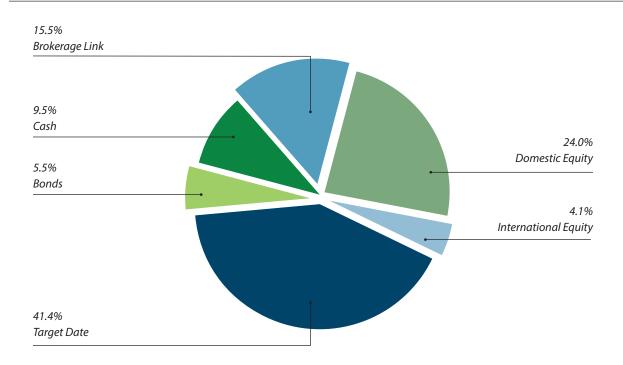
In order to provide members with the opportunity to select risk/reward strategies to meet their savings and investment goals, the Self-Directed Plans Committee provides fund options with distinctly different risk/reward trade-offs. To this end, the Board's policy is to have a study of investment options performed approximately every two years. The purpose of this study is to provide updated information regarding the risk/reward profiles of current fund options, as well as alternative fund options across various asset classes. This information will be utilized by the Self-Directed Plans Committee in determining appropriate fund options.

Members make their own decisions when directing the investment of their contributions and accumulated account balances among the investment options offered. Members assume the risk of investment results derived from both the options offered and the strategies they select. It is the member's responsibility to allocate and reallocate assets among investment options as personal circumstances change. The options offered allow the members to address the risks and needs members face.

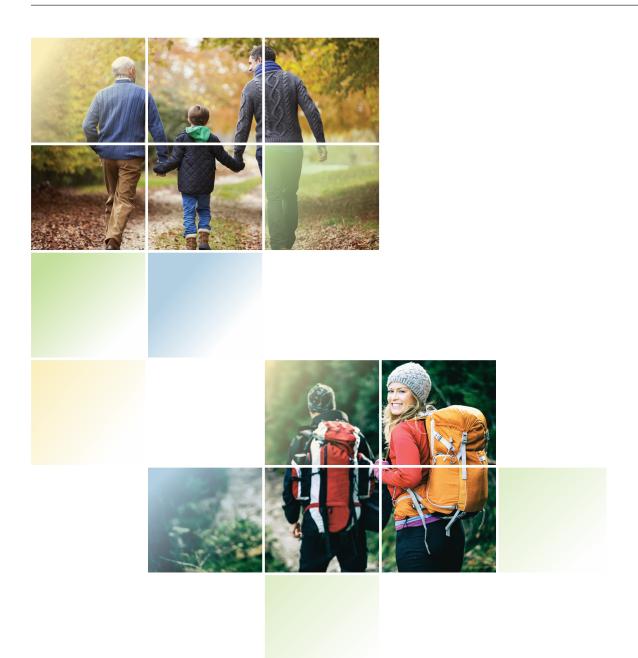
## **Fund Options for Members**

As with any investment strategy, diversification is a component of effective risk management. FPPA's Board of Directors has selected a variety of funds across various asset classes from which members can select investment options. Within the funds, one or more pooled investment vehicles are offered in the following asset classes: Stable Value, Money Market, Domestic Bond, Domestic Equity, International Equity and Target Date Retirement Funds. FPPA utilizes Fidelity Investments® to provide recordkeeping and investment management services for FPPA's self-directed plans.

### ■ December 31, 2016 Asset Allocation



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## **Actuary's Certification Letter**



Gabriel Roeder Smith & Company Consultants & Actuaries

7900 East Union Avenue Suite 650 Denver, CO 80237-2746 720.274.7270 phone 303.694.0633 fax www.gabrielroeder.com

February 22, 2017

Board of Directors Fire & Police Pension Association 5290 DTC Parkway, Suite 100 Greenwood Village, CO 80111

## Re: Actuarial Certification of Defined Benefit Plans

Dear Members of the Board:

This letter concerns the actuarial valuations (both funding and accounting) of the FPPA Defined Benefit System - Statewide Defined Benefit Plan, the Defined Benefit System - Statewide Hybrid Plan Defined Benefit Component, the Statewide Death & Disability Plan, the Colorado Springs New Hire Plans, and affiliated local old hire and volunteer fire plans.

For each plan, a contribution rate was determined which provides for funding as shown in the following table:

Plan	Funding Objective
Defined Benefit System -	Current cost plus level percent of payroll
Statewide Defined Benefit Plan	amortization of unfunded liability over 30 years
Defined Benefit System -	Current cost plus level percent of payroll
Statewide Hybrid Plan Defined	amortization of unfunded liability over 30 years
Benefit Component	
Statewide Death & Disability	Current cost funded as level percent of payroll of
Plan	contributing members
Defined Benefit System -	Current cost plus level dollar amortization of
Colorado Springs New Hire	unfunded liability over 23 years
Pension Plans	~ ~
Affiliated Local Old Hire Plans	Current cost plus level dollar amortization of
	unfunded liability over 17 years
Affiliated Volunteer Fire Plans	Current cost plus level dollar amortization of
	unfunded liability over 19 years

Most affiliated plans are valued every two years, while the Defined Benefit System and Statewide Death & Disability Plans, and certain state assisted local old hire plans are valued every year. The funding objective for each plan is currently being realized, with the exception of certain affiliated local old hire plans.

Gabriel Roeder Smith & Company

Board of Directors, Fire and Police Pension Association February 22, 2017 Page 2

The Statewide Death & Disability Plan ("D&D") contribution rate was increased to 2.6% effective January 1, 2007, the maximum rate currently permitted by statute. The D&D contribution rate may only be changed every two years by statute. Based on the January 1, 2016 actuarial valuation, the Board elected to increase the contribution rate to 2.7% for the two-year period beginning January 1, 2017.

The Defined Benefit System and Statewide Death & Disability Plans, and affiliated local old hire plans were last valued as of January 1, 2016. The affiliated volunteer fire plans were last valued as of January 1, 2015.

The total pension liability for GASB 67 purposes was rolled-forward from the valuation date to the plan's fiscal year ending December 31, 2016 using generally accepted actuarial principles. During 2016, ad hoc benefit adjustments were granted to retirees of the Statewide Defined Benefit Plan and Statewide Hybrid Plan Defined Benefit Component. The Schedule of Changes in the Employer's Net Pension Liability reflects these changes. There were no other significant events or material changes in benefit provisions that required an adjustment to the roll-forward liabilities.

A single discount rate was used to measure the total pension liability for the fiscal years ending December 31, 2015 and December 31, 2016. This single discount rate was based on the expected rate of return on pension plan investments of 7.50% and municipal bond rates of 3.57% and 3.78% (based on the 20-year Bond Buyer GO Index as of the end of December) for fiscal years ending 2015 and 2016, respectively. The resulting discount rates were 7.50%. Based on the stated assumptions and the projection of cash flows as of each fiscal year ending, the pension plan's fiduciary net position and future contributions were sufficient to finance all the future benefit payments of the current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of the projected benefit payments to determine the total pension liability for each system.

The valuations were performed based on data provided by FPPA's administrative staff, with an examination of the data for reasonableness. The actuarial methods and assumptions used are in full compliance with all the parameters established by GASB Statements No. 67 & No. 68 and meet the parameters set for the disclosures presented in the financial section by GASB Statement No. 67. The assumptions and methods used for funding purposes meet the parameters set by applicable Actuarial Standards of Practice. GRS provided the following schedules for the December 31, 2015 Comprehensive Annual Financial Report (CAFR):

## Financial Section

- Net Pension Liability
- Required Discount Rate Sensitivity Information for the Defined Benefit System
  providing the Net Pension Liability at a discount rate that is one percentage point lower
  and one percentage point higher than the discount rate
- Required Supplementary Information Schedule of Changes in the Employer's Net Pension Liability

Gabriel Roeder Smith & Company

## **Actuary's Certification Letter** continued

Board of Directors, Fire and Police Pension Association February 22, 2017 Page 3

- Required Supplementary Information Schedule of Employers' Contributions
- Required Supplementary Information Schedule of Funding Progress for the Statewide Death & Disability Plan

#### Actuarial Section

- Schedule of Active Member Valuation Data
- Gain/(Loss) on Actuarial Value of Assets
- Schedule of Retirees and Beneficiaries Added To and Removed From Benefit Payroll
- Schedule of Funding Progress
- Solvency Test
- Summary of Actuarial Information for Affiliated Local Plans

#### Statistical Section

• Schedule of Average Benefit Payments for New Benefit Recipients

We have reviewed these schedules for their accuracy. To the best of our knowledge, the supporting schedules fully and fairly disclose the actuarial conditions of the plans.

The undersigned are independent actuaries. Both are Members of the Society of Actuaries and meet the Qualifications Standards of the American Academy of Actuaries, and they are experienced in performing valuations for large public retirement systems.

Sincerely,

Gabriel, Roeder, Smith & Company

Joseph P. Newton, F.S.A., E.A.

Senior Consultant

Dana Woolfrey, F.S.A., E.A.

Consultant

## **General Information and Summary of Actuarial Assumptions**

### **General Information**

The Fire & Police Members' Benefit Investment Fund of the Fire & Police Pension Association includes the assets of the Defined Benefit System, Affiliated Local "Old Hire" police and fire plans, Affiliated Local Volunteer Firefighter pension plans, and the Statewide Death & Disability Plan. The Defined Benefit System comprises the Statewide Defined Benefit Plan, the Statewide Hybrid Plan, and the Colorado Springs New Hire Pension Plan. An independent actuarial firm is hired by the Association to perform annual valuations on the three statewide plans and the Colorado Springs New Hire Pension Plan, and to perform biennial valuations on the local "Old Hire" and volunteer plans. In 2016 and 2015 the independent actuarial valuations were performed by Gabriel, Roeder, Smith & Company.

All of the Affiliated Local "Old Hire" police and fire pension plans have a valuation performed as of January 1 of the even numbered years (2016, 2018, etc.). All of the Affiliated Local Volunteer Firefighter pension plans have valuations performed as of January 1 of the odd numbered years (2015, 2017, etc.).

Each of the locally administered plans has a different benefit and member structure. All of the affiliated plans use the actuarial assumptions which have been established by the Fire & Police Pension Association's Board of Directors.

The following data covers detailed information on the Defined Benefit System, Statewide Death & Disability Plan and the Affiliated Local plans.

## **Summary of Actuarial Assumptions**

The Defined Benefit System is a multi-tiered system that is comprised of the Statewide Defined Benefit Plan, the Statewide Hybrid Plan, and the Colorado Springs New Hire Pension Plan. The Defined Benefit System - Statewide Defined Benefit Plan and the Defined Benefit System - Statewide Hybrid Plan are cost-sharing multiple-employer public employee retirement systems (PERS).

The Defined Benefit System – Statewide Defined Benefit Plan was created by state statute to cover all members hired on and after April 8, 1978 for normal retirement benefits. This plan was created as the successor to local "Old Hire" plans, most of which had significant unfunded liabilities. The local "Old Hire" plans are closed to new entrants. As of December 31, 2016, 216 employer fire and police departments throughout the state were participating in the Defined Benefit System – Statewide Defined Benefit Plan.

The Defined Benefit System – Statewide Hybrid Plan was created by state statute on January 1, 2004 as an option for local Money Purchase plans and participants in the Fire & Police Members' Statewide Money Purchase plan. It allows participants in these plans to migrate to a defined benefit plan administered by the Fire & Police Pension Association. The plan is comprised of two components, the Defined Benefit Component and the Money Purchase Component. As of December 31, 2016, 37 employer fire and police departments throughout the state were participating.

Two plans joined the Defined Benefit System as of October 1, 2006. They are defined benefit plans for fire and police employees hired on and after April 8, 1978 but prior to October 1, 2006 for the City of Colorado Springs. Upon joining the Defined Benefit System, these two plans merged into one plan document but with a police and fire component. The plan is closed to new members as of October 1, 2006.

The Statewide Death & Disability Plan is a defined benefit cost-sharing multiple-employer death and disability plan, previously funded almost exclusively by contributions from the state. This plan was created by state statute, and is designed to provide both on- and off-duty coverage for death and disability for all members in the state who have not yet completed the age and service requirements for a normal retirement. As of December 31, 2016, 263 employer fire and police departments were participating.

The Affiliated Local Plans include defined benefit retirement plans for fire and police employees in the State of Colorado hired before April 8, 1978 (Old Hires), provided that such plans have affiliated with the Fire & Police Pension Association, and the affiliated volunteer firefighter pension plans in the State of Colorado. There are 223 Affiliated Local Plans as of December 31, 2016.

The valuations for the Defined Benefit System - Statewide Defined Benefit Plan and the Colorado Springs New Hire Pension Plan are used to determine the normal cost of the plan, and to determine any "excess" contribution amounts which may be allocated to the members' separate retirement accounts (SRAs) for the following year.

## General Information and Summary of Actuarial Assumptions continued

The valuation for the Defined Benefit System - Statewide Hybrid Plan – Defined Benefit Component is also used to determine the normal cost of the plan and to determine any "excess" contribution amounts which may be allocated to the Money Purchase Component of the Plan.

The Fire & Police Pension Association supplied the data for the retired, active and inactive members to the actuary. The data was examined for general reasonableness and consistency with prior years' information by the independent actuarial firm but was not audited.

The actuarial valuation computations were made by or under the supervision of a Member of the American Academy of Actuaries (MAAA) and an Enrolled Actuary (EA).

The actuarial assumptions have been selected by the Fire & Police Pension Association's Board of Directors based upon the actuary's analysis and recommendations from the 2015 Experience Study. The assumptions and methods are detailed within the Actuarial Section of this report. The Board has sole authority to determine the actuarial assumptions used for the plans. The assumptions that are based upon the actuary's recommendations are internally consistent and are reasonably based on the actual past experience of the plans. These assumptions are also in full compliance with all of the parameters established by Government Accounting Standards Board (GASB) Statements No. 67, No. 68, No. 43, and No. 45. The following economic and non-economic assumptions were adopted by the Fire & Police Pension Association's Board of Directors and were first used during the January 1, 2016 actuarial valuations.

### **Actuarial Experience Study**

At least every five years the Fire & Police Pension Association's Board of Directors, in accordance with best practices, reviews its economic and demographic actuarial assumptions.

At its July 2015 meeting, the Board of Directors reviewed and approved recommended changes to the actuarial assumptions. The assumption changes were effective for actuarial valuations beginning January 1, 2016. The actuarial assumptions impacted actuarial factors for benefit purposes such as purchases of service credit and other benefits where actuarial factors are used. The date the new actuarial assumptions were effective for benefit purposes was October 1, 2016.

The main actuarial factor changes effective January 1, 2016 were:

- Reduce the inflation assumption from 3.0% to 2.5%. It was determined that the 3.0% assumption is higher than the long term historical average, the recent historical average, and most sources of future expectations. The decision to lower the assumption to 2.5% places the assumption closer to recent inflation levels and closer to the levels expected in the bond market. The real return on investments was increased to 5.0% for an overall nominal investment return of 7.50%. The productivity component of the salary increases was increased from 1.0% to 1.5%. The aggregate effect of these changes (inflation, real return, and the productivity component of the salary increase) on the actuarial results was minimal.
- Add an explicit charge for administrative expenses in the actuarial contribution calculation. Although the nominal investment return was not changed from 7.50%, adding an explicit administrative expense effectively reduces the return that must be earned by the plans in order to meet the actuarial assumption since the investment return is no longer net of administrative expenses. This does not alter the accrued liability, but it does increase the actuarially calculated contribution.
- Revise the base mortality tables and the explicit assumption for increasing longevity in the future to reflect current mortality studies. This had the effect of increasing longevity expectations, and in turn, increasing expected costs and liabilities.
- Increase the expected incidence of Total Disability for members of FPPA's defined benefit plans. Disability incidence is an important assumption for FPPA plans because a disability occurrence shifts all liability from the Defined Benefit System plans (Statewide Defined Benefit Plan, Statewide Hybrid DB Component Plan, Colorado Springs New Hire Plan) to the Statewide Death & Disability Plan. Increasing the expected incidence of Total Disability creates a large increase in projected benefits from the Statewide Death & Disability Plan and reduces projected benefits from the Defined Benefit System retirement plans.

The actuarial assumptions implemented January 1, 2016 are a more conservative position for the Fire & Police Pension Association as it proceeds forward. As always, the assumptions will be reviewed against actual experience each year and gains or losses recognized in accordance with Governmental Accounting Standards Board standards and our actuarial methods and policies.

## General Information and Summary of Actuarial Assumptions continued

## **Economic Assumptions**

Effective January 1, 2016, the investment rate of return for purposes of the actuarial valuation is 7.5% per annum, compounded annually and net of operating expenses. Future inflation is assumed to be 2.5% annually and is included in the active members' salary projections. Thus the real investment rate of return, net of inflation, is 5.0% per annum. Even though lowering the inflation assumption actually increases the assumed real rate of return assumption, there have been adjustments to the asset allocation as inflation expectations have continued to decrease in order to increase the real return of the portfolio.

Effective January 1, 2016, active members' salary increases are composed of three pieces, inflation increases, productivity component of 1.5%, and step-rate/promotional component which varies by the service of the member. The inflation assumption is 2.5% annually. For the Statewide Plans, retirees and beneficiaries are not assumed to receive annual cost-of-living increases as described under current state statute.

Under the affiliated plans, paid plan retirees and beneficiaries from limited rank escalation departments are projected to receive annual cost-of-living increases of 3.5% per annum, compounded annually for benefits accrued prior to January 1, 1980, and 3% per annum compounded annually for benefits accrued after January 1, 1980 (maximum permitted by law). Paid plan retirees and beneficiaries from full rank escalation departments are projected to receive annual cost-of-living increases of 3.5% per annum.

Assets are valued at an actuarial value of assets. The actuarial value of assets is based on the fair value of assets with a five-year phase-in of actual investment return in excess of or less than expected investment income. The returns are computed net of administrative and investment expenses.

No new members are projected to be added to the plans.

### **Non-economic Assumptions**

Effective January 1, 2016, the post-retirement mortality tables for non-disabled retirees is a blend of the Annuitant and Employee RP-2014 generational mortality tables with blue collar adjustment projected with Scale BB. The occupationally disabled post-retirement mortality assumption uses the same table as used for healthy annuitants, except there is a three year setforward, meaning a disabled member age 70 will be valued as if they were a 73 year old healthy retiree. The totally disabled post-retirement mortality assumption uses the RP-2014 generational mortality tables for disabled annuitants, except an additional provision to apply a minimum 3% mortality probability to males and 2% mortality probability for females is included to reflect substantial impairment for this population. The pre-retirement off-duty mortality tables are adjusted to 55% of the RP-2014 mortality tables for active employees. The on-duty mortality rate is 0.00020.

The actuarial method used for the valuation of benefits for funding and financial reporting purposes is specified by state statute to be either the Entry Age Normal or Aggregate Cost Method, with experience gains or losses adjusting the unfunded actuarial accrued liability. The surplus in the Defined Benefit System - Statewide Defined Benefit Plan and the Defined Benefit System - Statewide Hybrid Plan are amortized over 30 years from the valuation date. Since the two components of the Colorado Springs New Hire Pension Plan are closed plans, the amortization period for these plans are over 30 years from January 1, 2008. State statute also specifies that the Defined Benefit System – Statewide Defined Benefit Plan must be fully funded on an actuarially sound basis without necessitating an increase in the 8% employer and 8% member contribution or such higher member contribution rate established in an election of the membership. Within the Defined Benefit System – Statewide Defined Benefit Plan employer contribution rates can only be amended by state statute. Member contribution rates can be amended by state statute or by an election of the membership.

# General Information and Summary of Actuarial Assumptions continued

# ■ Pre-Retirement Assumptions – Annual Rate Per 1,000 Members

	Disability				Separation			Death	
Sample Ages	Occupational	Total	Volunteer	Years of Service	Members	Volunteer	Attained Age in 2016	Male	Femal
25	0.29	0.02	0.16	0	98.5	165.79	25	0.54	0.31
30	1.35	0.17	0.26	5	43.6	123.85	30	0.52	0.33
35	1.82	0.34	0.45	10	17.9	82.97	35	0.57	0.38
40	2.67	0.52	0.97	15	9.9	54.92	40	0.64	0.44
45	3.29	0.72	3.50	20	8.1	0.00	45	0.89	0.60
50	4.89	0.94	6.50	23	5.2	0.00	50	1.39	0.88
55	6.88	1.17	8.10				55	2.17	1.22

For Statewide Death and Disability Plan:

Service Retirement:

- 1) Statewide Defined Benefit System members Age 55 with 5 years of service, or current age, if greater.
- 2) Money purchase plan members Earlier of age 65 or age 55 with 25 years of service; or current age, if greater.
- 3) Denver Police local plan members Age after 25 years of service or current age, if greater.
- 4) Denver Fire local plan members Age 50 and 25 years of service or current age, if greater.
- 5) All other plan members Age 52 or current age, if greater.

# ■ Pre-Retirement Assumptions – Salary Increase Rates

Years of Service	Annual Step-Rate/ Promotional Rate	Total Annual Rate of Increase Including 2.5% Inflation Component and 1.5% Productivity Component
1	10.00%	14.00%
2	8.50%	12.50%
3	8.00%	12.00%
4	7.50%	11.50%
5	2.50%	6.50%
6	1.50%	5.50%
7	1.50%	5.50%
8	1.00%	5.00%
9	0.75%	4.75%
10	0.50%	4.50%
11	0.50%	4.50%
12	0.50%	4.50%
13	0.25%	4.25%
14	0.25%	4.25%
15	0.00%	4.00%

# ■ Post-Retirement Assumptions

					Annual Rate per 1,000 Members							
					Hea	ilthy	Occup	ationally	To	otally	Active I	vlember
Sample	COLA	Full	Limite	ed Rank	Retiree o	r Survivor	Disable	d Retirees	Disable	ed Retirees	De	ath
Ages	Increases	Rank	(Pre 1980)	(Post 1980)	(Male)*	(Female)*	(Male)*	(Female)*	(Male)*	(Female)*	(Male)*	(Female)*
20	N/A										0.49	0.30
30	N/A										0.52	0.33
40	N/A										0.64	0.44
45	N/A										0.89	0.60
50	N/A	3.5%	3.5%	3.0%	2.17	1.23	2.94	1.59	30.00	20.00	1.39	0.88
55	N/A	3.5%	3.5%	3.0%	3.68	1.97	5.56	3.33	30.00	20.00	2.17	1.22
60	N/A	3.5%	3.5%	3.0%	7.24	4.62	10.18	6.89	30.00	20.00		
65	N/A	3.5%	3.5%	3.0%	12.31	8.52	15.95	11.24	30.93	20.36		
70	N/A	3.5%	3.5%	3.0%	19.10	13.63	25.23	18.36	39.14	27.53		

<sup>\*</sup>Age attained in 2016.

# ■ Schedule of Active Member Valuation Data

Valuation Date	Number	Average Age	Average Service	Covered Payroll	Annual Average Pay	% Increase in Average Pay
1/1/16	6,602	40.7	10.5	\$473,359,565	\$71,699	1.46%
1/1/15	6,245	40.8	10.7	441,313,862	70,667	1.19%
1/1/14	6,110	40.7	10.6	426,690,241	69,835	(0.18%)
1/1/13	5,807	41.0	10.8	406,258,662	69,960	3.94%
1/1/12	5,717	40.8	10.5	384,803,645	67,309	1.19%
1/1/11	5,314	40.7	10.5	353,484,986	66,520	1.83%
1/1/10	5,331	40.1	9.9	384,253,545	65,326	5.12%
1/1/09	5,197	39.6	9.5	322,971,268	62,146	3.91%
1/1/08	4,988	39.3	9.2	298,313,990	59,806	2.00%
1/1/07	4,512	39.3	9.2	264,560,282	58,635	5.26%

# ■ Gain | (Loss) on Actuarial Value of Assets

	Valuation as of January 1, 2016	Valuation as of January 1, 2015	
Actuarial assets, prior valuation	\$1,714,971,185	\$1,546,834,469	
Total Contributions since prior valuation	110,242,127	83,472,102	
Benefits and refunds since prior valuation	(54,839,864)	(49,549,227)	
Assumed net investment income at actuarial rat	e %*		
Beginning assets	128,622,839	116,012,585	
Contributions	4,134,080	3,130,204	
Benefits and refunds paid	(2,056,495)	(1,858,096)	
Total	\$130,700,424	\$117,284,693	
Expected actuarial assets	\$1,901,073,872	\$1,698,042,037	
Actual actuarial assets, this valuation	\$1,890,604,068	\$1,714,971,185	
Asset gain/(loss)	\$(10,469,804)	\$16,929,148	
	Loss	Gain	

<sup>\*7.5%</sup> as of 1/1/2012

# ■ Schedule of Retirees and Beneficiaries Added To and Removed From Benefit Payroll

	Added	to Payroll**	Removed	from Payroll	Payroll		% Increase	Average
Year		Annual		Annual		Annual	in Annual	Annual
Ended	Number	Benefit	Number	Benefit	Number	Benefit	Benefit	Benefit
12/31/2015	131	\$6,463,995	5	\$120,311	1,175	\$48,334,277	15.11%	\$41,136
12/31/2014	146	6,358,310	5	121,694	1,049	41,990,593	17.44%	40,029
12/31/2013	155	7,528,613	2	81,763	908	35,753,977	26.31%	39,377
12/31/2012	115	5,199,290	1	43,620	755	28,307,127	22.27%	37,493
12/31/2011	130	5,959,060	2	68,483	641	23,151,457	34.05%	36,118
12/31/2010	94	3,862,662	5	131,169	513	17,270,880	27.56%	33,666
12/31/2009	75	2,981,664	4	43,765	424	13,539,387	27.71%	31,933
12/31/2008	65	2,375,478	3	75,874	353	10,601,488	27.70%	30,033
12/31/2007	66	2,201,387	1	29,009	291	8,301,884	35.44%	28,529
12/31/2006	69	2,284,964	2	97,352	226	6,129,506	55.50%	27,122

# ■ Schedule of Funding Progress

Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded (Surplus) Actuarial Accrued Liability	Funded Ratio	Covered Payroll	Unfunded (Surplus) Actuarial Accrued Liability as a Percentage of Covered Payroll
1/1/2016	\$1,890,604,068	\$1,846,961,999	\$(43,642,069)	102.4%	\$473,359,565	(9.2%)
1/1/2015	1,714,971,185	1,652,901,084	(62,070,101)	103.8%	441,313,862	(14.1%)
1/1/2014	1,546,834,469	1,533,631,141	(13,203,328)	100.9%	426,690,241	(3.1%)
1/1/2013	1,374,576,631	1,404,607,765	30,031,134	97.9%	406,258,662	7.4%
1/1/2012	1,225,537,747	1,271,490,169	45,952,422	96.4%	384,803,645	11.9%
1/1/2011	1,080,284,447	1,049,622,033	(30,662,414)	102.9%	353,484,986	(8.7%)
1/1/2010	963,500,681	963,300,852	(199,829)	100.0%	363,265,902	(0.1%)
1/1/2009	856,090,014	847,821,122	(8,268,892)	101.0%	337,918,774	(2.4%)
1/1/2008	950,114,346	795,499,983	(154,614,363)	119.4%	312,857,166	(49.4%)
1/1/2007	801,426,848	654,097,657	(147,329,191)	122.5%	271,906,902	(54.2%)

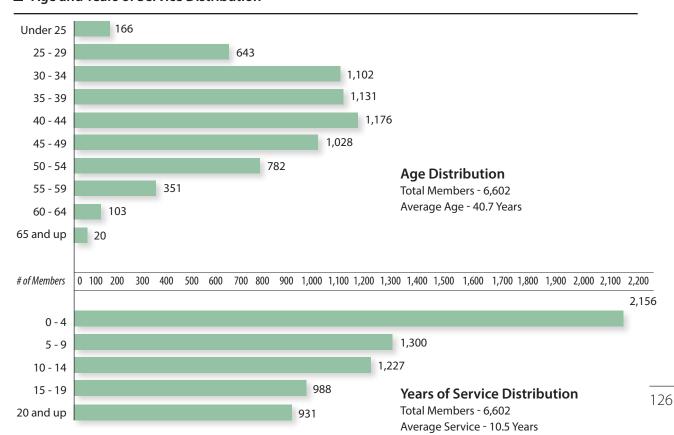
#### **Limitations of Funded Status Measurements**

Unless otherwise indicated, a funded status measurement presented in this chart is based upon the actuarial accrued liability and the actuarial value of assets.

With regard to any funded status measurements presented in this chart:

- (1) The measurement is inappropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations.
- (2) The measurement alone is inappropriate for assessing the need for or the amount of future employer contributions.
- (3) The measurement would produce a different result if the market value of assets were used instead of the actuarial value of a sets, unless the market value of assets is used in the measurement.

## ■ Age and Years of Service Distribution



#### **Solvency Test**

The Fire & Police Pension Association's funding objective for the Defined Benefit System - Statewide Defined Benefit Plan is to be able to pay the retirement benefits promised to the members including the granting of an annual benefit adjustment to all retirees and beneficiaries. The objective is to entirely fund these promised benefits by the total member and employer combined contribution rate. In 2016, the total member and employer combined contribution rate was 17.0% of base salary.

A short-term solvency test is used to check the funding progress towards its funding objective. In a short-term solvency test, the plan's present assets are compared with: (1) liability for active member contributions on deposit, (2) liability for future benefits to present retired lives, (3) liability for service already rendered by active members.

Expressing the net assets available for benefits as a percentage of the different liability measures provides one indication of the funding status on a going-concern basis. Generally, the greater the percentages, the stronger the public employee retirement system.

The schedule on this page illustrates the progress in funding the various liability measures. As can be seen by the funded percentages, the liabilities were not covered by current assets as of the January 1, 2012 and 2013 valuation dates. As of the January 1, 2016 valuation, the liabilities are 100% covered by current assets. This plan does not have any unfunded liability and current contributions exceed the cost of annual benefit accruals.

## Solvency Test

	Aggregate Accrued Liabilities For								
		(1)	(2)	(3)					
	Valuation	Active Member	Retirees, Beneficiari and Vested	ies Members (Employer	Portio	n of Accrued Covered by			
Valuation	Assets	Contributions	Terminations	Financed Portion)	1	Reported Ass			
Date	(000's)	(000's)	(000's)	(000's)	(1)	(2)	(3)		
1/1/2016	\$1,890,604	\$422,699	\$608,987	\$815,276	100%	100%	100%		
1/1/2015	1,714,971	384,837	521,492	746,572	100%	100%	100%		
1/1/2014	1,546,834	369,248	443,857	720,526	100%	100%	100%		
1/1/2013	1,374,577	353,206	355,705	695,697	100%	100%	95.7%		
1/1/2012	1,225,538	331,763	296,225	643,502	100%	100%	92.9%		
1/1/2011	1,080,284	276,908	210,799	561,915	100%	100%	100%		
1/1/2010	963,501	259,369	165,390	538,542	100%	100%	100%		
1/1/2009	856,090	232,742	135,004	480,075	100%	100%	100%		
1/1/2008	950,114	211,285	110,301	473,914	100%	100%	100%		
1/1/2007	801,427	177,180	82,227	394,691	100%	100%	100%		

## ■ Summary of Plan Provisions

## **Plan Description**

The Fire & Police Pension Association Defined Benefit System – Statewide Defined Benefit Plan ("Plan") is a cost-sharing multiple-employer defined benefit pension plan. The Plan covers substantially all full-time employees of participating fire or police departments in Colorado hired on or after April 8, 1978, provided that they are not already covered by a statutorily exempt plan. As of August 1, 2003, the Plan may include clerical and other personnel from fire districts whose services are auxiliary to fire protection. The Plan was established in 1980 pursuant to Colorado Revised Statutes.

Employers once had the option to elect to withdraw from the Plan, but a change in state statutes permitted no further withdrawals after January 1, 1988.

The Plan assets are included in the Fire & Police Members' Benefit Investment Fund and the Fire & Police Members' Self-Directed Investment Fund (for Deferred Retirement Option Plan "DROP" assets and Separate Retirement Account "SRA" assets from eligible retired members.)

#### **Plan Year**

A twelve-month period ending December 31.

#### **Members Included**

Members included are active employees who are full-time salaried employees of a participating municipality, fire protection district, fire authority, or county improvement district normally serving at least 1,600 hours in a calendar year and whose duties are directly involved with the provision of police or fire protection. As of August 1, 2003, the Plan may include clerical and other personnel from fire districts whose services are auxiliary to fire protection.

Also included are employees of any employer that covers members under the federal Social Security Act or any county that chooses to affiliate with the Fire & Police Pension Association and that covers salaried employees whose duties are directly involved with the provision of law enforcement or fire protection as certified by the county under the federal Social Security Act.

## **Compensation Considered (Base Salary)**

Base salary means the total base rate of pay including Member Contributions to the Statewide Defined Benefit Plan or Statewide Money Purchase Plan which are "picked up" by the employer:

- 1) And shall also include longevity pay, sick leave pay taken in the normal course of employment, vacation leave pay taken in the normal course of employment, shift differential, and mandatory overtime that is part of the Member's fixed, periodic compensation.
- 2) Accumulated vacation leave pay will also be included if a Member completes his/her service requirement for purposes of Normal retirement while exhausting accumulated vacation leave.
- 3) Base salary shall not include overtime pay (except as noted in the preceding sentence), step-up pay or other pay for temporarily acting in a higher rank, uniform allowances, accumulated sick leave pay, accumulated vacation leave pay (except as noted in the preceding sentence), and other forms of extra pay (including Member Contributions which are paid by the employer and not deducted from the Member's salary).
- 4) In the event an employer has established or does establish a Deferred Compensation Plan, the amount of the Member's salary that is deferred shall be included in the Member's base salary.
- 5) Any amounts voluntarily contributed to an Internal Revenue Code Section 125 "Cafeteria Plan" shall be included in the Member's base salary. A Member is deemed temporarily acting in a higher rank if the appointment to the rank is anticipated to last less than six months.

### **Contribution Rates**

The Plan sets contribution rates at a level that enables all benefits to be fully funded at the retirement date of all members. Contribution rates for this Plan are set by state statute. Employer contribution rates can only be amended by state statute. Member contribution rates can be amended by state statute or by election of the membership.

Members of this Plan and their employers contributed at the rate of 8 percent of base salary for a total contribution rate of 16 percent through 2014. In 2014, the members elected to increase the member contribution rate to the Plan beginning in 2015. Member contribution rates will increase 0.5 percent annually through 2022 to a total of 12 percent of base salary. Employer contributions will remain at 8 percent resulting in a combined contribution rate of 20 percent in 2022.

Contributions from members and employers of plans re-entering the system are established by resolution and approved by

the Fire & Police Pension Association's Board of Directors. The reentry group had a combined contribution rate of 20 percent of base salary through 2014. It is a local decision on who pays the additional 4 percent contribution. Per the 2014 member election, the reentry group also had their required member contribution rate increase 0.5 percent annually beginning in 2015 through 2022 for a total combined member and employer contribution rate of 24 percent.

The contribution rate for members and employers of affiliated social security employers was 4 percent of base salary for a total contribution rate of 8 percent effective January 1, 2007 through 2014. Per the 2014 member election, the affiliated social security group also had their required member contribution rate increase 0.25 percent annually beginning in 2015 through 202 to a total of 6 percent of base salary. Employer contributions will remain at 4 percent resulting in a combined contribution rate of 10 percent in 2022.

## ■ Contribution Rate Implementation Schedule

Effective Date	Member Contribution Rate	Employer Contribution Rate	Total Combined Contribution Rate	
1/1/2014	8.0%	8.0%	16.0%	
1/1/2015	8.5%	8.0%	16.5%	
1/1/2016	9.0%	8.0%	17.0%	
1/1/2017	9.5%	8.0%	17.5%	
1/1/2018	10.0%	8.0%	18.0%	
1/1/2019	10.5%	8.0%	18.5%	
1/1/2020	11.0%	8.0%	19.0%	
1/1/2021	11.5%	8.0%	19.5%	
1/1/2022	12.0%	8.0%	20.0%	
Beyond	12.0%	8.0%	20.0%	

Note: The Statewide Defined Benefit Plan - Reentry group has a combined contribution rate of 20% through 2014. It is a local decision on who pays the additional 4% contribution. Effective 1/1/2015, the member contribution rate will increase by 0.5% per year over 8 years for a total combined member and employer contribution rate of 24%.

# ■ Supplemental Social Security - Contribution Rate Implementation Schedule

Effective Date	Member Contribution Rate	Employer Contribution Rate	Total Combined Contribution Rate	
1/1/2014	4.00%	4.00%	8.00%	
1/1/2015	4.25%	4.00%	8.25%	
1/1/2016	4.50%	4.00%	8.50%	
1/1/2017	4.75%	4.00%	8.75%	
1/1/2018	5.00%	4.00%	9.00%	
1/1/2019	5.25%	4.00%	9.25%	
1/1/2020	5.50%	4.00%	9.50%	
1/1/2021	5.75%	4.00%	9.75%	
1/1/2022	6.00%	4.00%	10.00%	
Beyond	6.00%	4.00%	10.00%	

## **Highest Average Salaries (HAS)**

The average of the member's highest three calendar years' annual base salaries.

## **Normal Retirement Date**

A member's Normal Retirement shall be the date on which the member has completed at least twenty-five years of credited service and has attained the age of 55.

#### **Normal Retirement Benefit**

The annual Normal Retirement Benefit shall be 2 percent of the average of the member's highest three years base salary for each year of credited service up to ten years plus 2.5 percent for each year thereafter.

The benefit for members of affiliated social security employers will be reduced by the amount of social security income the member receives annually, calculated as if the social security benefit started as of age 62 for benefits prior to 2007. Beginning January 1, 2007, members of affiliated social security employers will participate in the Fire & Police Pension Association supplemental social security program which will provide benefits equal to 1 percent of the average of the member's highest three years base salary for each year of credited service up to ten years plus 1.25 percent for each year thereafter.

Benefits are paid as a monthly life annuity. Optional forms of payment are available.

#### **Early Retirement Benefit**

A member shall be eligible for an Early Retirement Benefit after completion of thirty years of service or attainment of age 50 with at least five years of credited service. The Early Retirement Benefit shall be the Normal Retirement Benefit reduced on an actuarially equivalent basis.

Benefits are paid as a monthly life annuity. Optional forms of payment are available.

#### **Deferred Retirement Benefit**

Members who qualify for a Normal or Vested Retirement may defer the receipt of their defined benefit pension to as late as age 65 and receive the actuarial equivalent of the benefit.

Benefits are paid as a monthly life annuity. Optional forms of payment are available.

#### **Terminated Vested Benefit**

A member who terminates with at least five years of service is vested. A vested member who does not withdraw their contributions from the Plan is eligible for a vested benefit, payable at age 55. The annual vested benefit is equal to 2 percent of the average of the member's highest three years base salary for each year of credited service up to ten years plus 2.5 percent for each year thereafter. Both the highest average salary and service are determined at the time the member leaves active employment or enters the Deferred Retirement Option Plan (DROP). Benefits may commence at age 55.

The benefit for members of affiliated social security employers earned prior to January 1, 2007 will be reduced by the amount of social security income the member receives annually.

Benefits are paid as a monthly life annuity. Optional forms of payment are available.

## **Severance Benefit**

All members leaving covered employment with less than five years of service credit are eligible. Optionally, vested members (those with five or more years of service credit) may withdraw their accumulated contributions in lieu of the future vested benefits otherwise due.

The member receives a lump-sum payment equal to the sum of their member contributions. Five percent as interest is credited on these contributions.

## **Death Benefit of Active Members**

Death must have occurred while an active or an inactive, non-retired member.

Upon the death of a non-vested active, unmarried member with no spouse, no dependent children, and no beneficiary, a refund of the member's contributions is paid to the member's estate. If the member was vested, single and had no dependent children and was not eligible for a Normal or Early retirement, a joint and survivor annuity may be paid to the beneficiary if

greater than the refund. The benefit for members of affiliated social security employers earned prior to January 1, 2007 will be reduced by the amount of social security income the member receives annually.

Survivors (spouse or dependent children) of active members who die prior to retirement eligibility are covered by the benefits provided by the Statewide Death & Disability Plan. For purposes of the Statewide Death & Disability Plan benefits, a spouse includes a partner in a civil union.

Survivors of an active or inactive member who is eligible for a Normal or Early retirement and who dies after leaving active service but before electing a payment option or receiving the first pension payment is eligible to receive a benefit according to payment Option 1, (Joint and 100% Survivor benefits).

## **Optional Forms of Payment**

In addition to a monthly life annuity, the Plan offers members these optional forms of payment on an actuarially equivalent:

- Option 1 (Joint and 100% Survivor) A life annuity payable while either the member or his beneficiary is alive.
- Option 2 (Joint and 50% Survivor) A life annuity payable to the member while the member is alive, reducing to 50 percent of this amount and payable to the beneficiary upon the member's death.
- Option 3 (Joint and 50% Last Survivor) A life annuity payable to the member while both the member and beneficiary are alive, reducing to 50 percent of this amount if either the member or the beneficiary dies.
- Option 4 (Joint and 100% Survivor with "Pop Up") 100 percent of the reduced retirement income payable for the life of the beneficiary upon the death of the retiring member, with the provision that, should the beneficiary predecease the member, the monthly annuity will revert to the amount that would have been payable under the normal form of payment.
- Option 5 (Joint and 50% Survivor with "Pop Up") –50 percent of the reduced retirement income payable for the life of the beneficiary upon the death of the retiring member, with the provision that, should the beneficiary predecease the member, the monthly annuity will revert to the amount that would have been payable under the normal form of payment.

Survivor benefits are paid according to the payment option elected by the member at the time of retirement. Actuarial equivalence is based on tables adopted by the Board.

## **Benefit Adjustments for Benefits in Pay Status**

Benefits to members and beneficiaries may be increased annually on October 1. The amount is based on the Fire & Police Pension Association Board of Directors discretion and can range from 0 percent to the higher of 3 percent or the Consumer Price Index. Benefit adjustment may begin once the retired member has been receiving retirement benefits for at least 12 calendar months prior to October 1.

## **Stabilization Reserve Account (SRA)**

Annually, at the discretion of the Board of Directors, the difference between the combined member/employer contribution and the actuarially determined contribution rate may be allocated to the stabilization reserve account (SRA). Amounts set aside in the SRA are allocated to individual accounts for each member. A member may receive the amounts in this individual account only upon election of Normal, Early, Disability or Vested retirement. If the cost of the Plan exceeds the combined member/employer contribution rate, funds from the SRA may be used to make up the shortfall. If a member leaves with less than five years of service credit, the SRA account is forfeited. Likewise, if a vested member elects to take a refund of member contributions instead of a retirement, the SRA is forfeited. The SRA may be payable in the event of the active member's death if the member was vested at the time of death, or if the member's survivors receive benefits from the Statewide Death & Disability Plan, the applicable SRA offset applies.

Members of plans reentering the system have a higher contribution rate. As a result their SRA has two components: the standard SRA and the reentry SRA. The component of the member's SRA attributable to the higher contribution rate is considered the reentry SRA. The reentry SRA cannot be used to subsidize the costs of the non-reentry members. The reentry SRA could be used to correct any deficiencies in the cost of participation for the reentry members only.

A member may elect to convert the SRA and/or reentry SRA to a lifetime monthly benefit with survivor benefits.

## **Deferred Retirement Option Plan (DROP)**

A member may elect to participate in the DROP after reaching eligibility for normal retirement, early retirement, or vested retirement and age 55. A member can continue to work while participating in the DROP, but must terminate employment within 5 years of entry into the DROP. The member's percentage of retirement benefit is determined at the time of entry into the DROP. The monthly payments that begin at entry into the DROP are accumulated in a DROP account until the member terminates service, at which time the DROP accumulated benefits can be paid as periodic installments, a lump sum, or if desired a member may elect to convert the DROP to a lifetime monthly benefit with survivor benefits. While participating in DROP, the member continues to make pension contributions, which are credited to the DROP. Effective January 1, 2003, the member shall self-direct the investments of their DROP funds.

### **Changes in Plan Provisions**

The plan provisions have not changed since the prior valuation.

### **Changes in Actuarial Assumptions**

Since the prior valuation, the Board adopted new assumptions based on the 2015 Experience Study. The changes from the prior assumption set are as follows:

### **Economic Assumptions**

- 1. Reduce the inflation assumption from 3.00% to 2.50%.
- 2. Increase the real rate of return assumption from 4.50% to 5.00%, resulting in no overall change to the nominal return assumption of 7.50%.
- 3. Add an explicit assumption for administrative expenses in the contribution determination.
- 4. Increase the productivity component of the salary scale assumption from 1.00% to 1.50%. Combining with the inflation rate of 2.50% creates ultimate salary scale assumption of 4.00%, which is unchanged from the prior assumption.
- 5. Slightly modify the service-based promotional/longevity component of the salary scale.

#### **Mortality Assumptions**

- 6. Update the post-retirement mortality tables for non-disabled retirees to a table based on the RP-2014 generational mortality tables with blue collar adjustment. In addition, update the projected rate of improvement in longevity from Scale AA to the more recently published Scale BB.
- 7. Update the occupationally disabled post-retirement mortality assumption to be the same table as used for the healthy annuitants, except with a three year set-forward.
- 8. Update the pre-retirement off-duty mortality tables to 55% of the RP-2014 mortality tables for active employees. Make no adjustment to the on-duty mortality rate of 0.00020.

### Other Demographic Assumptions

- 9. Slightly increase the pattern of retirement.
- 10. Combine the termination assumption for police and fire.
- 11. Increase the rates of both occupational and total disability to reflect higher incidence of disability observed during the study period than expected.

#### **Actuarial Methods and Policies**

- 12. Recommend no change to the use of the 5-year smoothing technique to determine the actuarial value of assets, used for determining the annual employer contribution rates.
- 13. Recommend continued use of the Entry Age Actuarial Cost Method.

# ■ Schedule of Active Member Valuation Data

Valuation		Average	Average		Annual	% Increase in
Date	Number	Age	Service	Covered Payroll	<b>Average Pay</b>	<b>Average Pay</b>
1/1/2016	160	46.1	12.2	\$12,830,741	\$80,192	3.05%
1/1/2015	156	46.1	11.5	12,140,184	77,822	2.26%
1/1/2014	170	45.6	10.8	12,937,791	76,105	1.02%
1/1/2013	172	45.3	10.3	12,958,335	75,339	10.58%
1/1/2012	171	44.5	8.9	11,650,031	68,129	(2.59%)
1/1/2011	121	43.4	9.7	8,462,937	69,942	2.20%
1/1/2010	126	42.7	8.9	8,622,865	68,435	6.30%
1/1/2009	114	41.2	8.8	7,338,959	64,377	5.93%
1/1/2008	115	40.9	8.5	6,988,987	60,774	(10.08%)
1/1/2007	63	41.7	10.3	4,257,723	67,583	14.12%

# ■ Gain | (Loss) on Actuarial Value of Assets

	Valuation as of January 1, 2016	Valuation as of January 1, 2015
Actuarial assets, prior valuation	\$39,772,760	\$34,476,002
Total Contributions since prior valuation	5,644,278	3,003,129
Benefits and refunds since prior valuation	(971,463)	(796,292)
Assumed net investment income at actuarial rat	e %*	
Beginning assets	2,982,957	2,585,700
Contributions	211,660	112,617
Benefits and refunds paid	(36,430)	(29,861)
Total	\$3,158,187	\$2,668,456
Expected actuarial assets	\$47,603,762	\$39,351,295
Actual actuarial assets, this valuation	\$47,344,971	\$39,772,760
Asset gain (loss) since prior valuation	\$(258,791)	\$421,465
	Loss	Gain

<sup>\*7.5%</sup> as of 1/1/2012.

# ■ Schedule of Retirees and Beneficiaries Added To and Removed From Benefit Payroll

	Added t	to Payroll**	Removed	from Payroll	oll Payroll		% Increase	Average
Year		Annual		Annual		Annual	in Annual	Annual
Ended	Number	Benefit	Number	Benefit	Number	Benefit	Benefit	Benefit
12/31/2015	9	\$225,384	0	\$0	34	\$1,089,295	26.09%	\$32,038
12/31/2014	6	266,259	0	0	25	863,911	44.55%	34,556
12/31/2013	3	111,306	0	0	19	597,652	22.89%	31,455
12/31/2012	2	54,220	0	0	16	486,346	12.55%	30,397
12/31/2011	4	174,855	0	0	14	432,126	67.96%	30,866
12/31/2010	4	90,509	0	0	10	257,272	54.27%	25,727
12/31/2009	0	4,858	0	0	6	166,763	3.00%	27,794
12/31/2008	2	59,330	0	0	6	161,905	66.76%	26,984
12/31/2007	1	13,802	0	0	4	97,089	16.57%	24,272
12/31/2006	3	83,287	0	0	3	83,287	N/A	27,762

# Schedule of Funding Progress

Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded (Surplus) Actuarial Accrued Liability	Funded Ratio	Covered Payroll	Unfunded (Surplus) Actuarial Accrued Liability as a Percentage of Covered Payroll
1/1/2016	\$47,344,971	\$35,776,922	\$(11,568,049)	132.3%	\$13,118,579	(88.2%)
1/1/2015	39,772,760	29,177,530	(10,595,230)	136.3%	12,462,773	(85.0%)
1/1/2014	34,476,002	26,123,656	(8,352,346)	132.0%	13,246,537	(63.1%)
1/1/2013	29,758,000	23,313,204	(6,444,796)	127.6%	13,384,707	(48.2%)
1/1/2012	23,666,933	18,832,849	(4,834,084)	125.7%	12,195,940	(39.6%)
1/1/2011	18,107,030	13,658,025	(4,449,005)	132.6%	8,770,187	(50.7%)
1/1/2010	15,373,546	12,107,329	(3,266,217)	127.0%	9,026,182	(36.2%)
1/1/2009	13,642,709	10,648,712	(2,993,997)	128.1%	7,726,670	(38.7%)
1/1/2008	14,075,984	9,774,906	(4,301,078)	144.0%	7,342,967	(58.6%)
1/1/2007	9,624,239	6,299,422	(3,324,817)	152.8%	4,391,954	(75.7%)

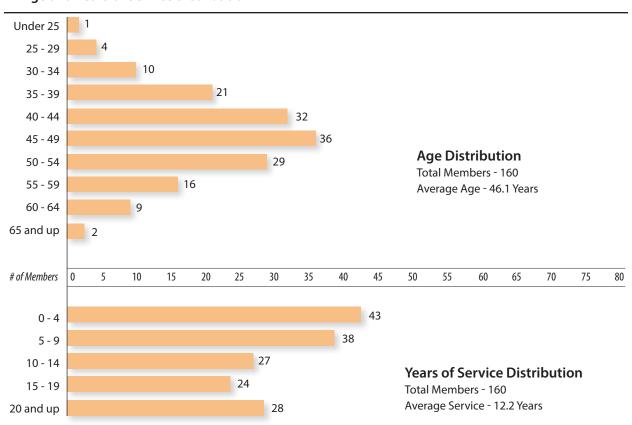
#### **Limitations of Funded Status Measurements**

Unless otherwise indicated, a funded status measurement presented in this chart is based upon the actuarial accrued liability and the actuarial value of assets.

With regard to any funded status measurements presented in this chart:

- (1) The measurement is inappropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations.
- (2) The measurement alone is inappropriate for assessing the need for or the amount of future employer contributions.
- (3) The measurement would produce a different result if the market value of assets were used instead of the actuarial value of a sets, unless the market value of assets is used in the measurement.

# ■ Age and Years of Service Distribution



## **Solvency Test**

The Fire & Police Pension Association's funding objective for the Defined Benefit System - Statewide Hybrid Plan is to be able to pay the retirement benefits promised to the members including the granting of an annual benefit adjustment to all retirees and beneficiaries. Contribution rates are actuarially determined each year as the sum of the normal cost and the amortization of the unfunded accrued liability over a period of 30 years from the current valuation date. The Board of Directors then certifies the rates allocated to the Defined Benefit component of the Statewide Hybrid Plan such that the rates will remain relatively stable over time and that will meet this financing objective. The contribution rate from July 1, 2015 through June 30, 2016 was 12.6%. The contribution rate from July 1, 2016 through June 30, 2017 is 13.5%.

A short-term solvency test is used to check the funding progress towards its funding objective. In a short-term solvency test, the plan's present assets are compared with: (1) liability for active member contributions on deposit, (2) liability for future benefits to present retired lives, (3) liability for service already rendered by active members.

Expressing the net assets available for benefits as a percentage of the different liability measures provides one indication of the funding status on a going-concern basis. Generally, the greater the percentages, the stronger the public employee retirement system.

The following schedule illustrates the progress in funding the various liability measures. As can be seen by the funded percentages, the liabilities are 100% covered by current assets. This plan does not have any unfunded liability and current contributions exceed the cost of annual benefit accruals.

## Solvency Test

		Aggregate Accrued Liabilities For					
				(3)			
		(1) Active	(2) Retirees,	Active Members (Employer			
Valuation	Valuation	Member	and	Financed	Fund	ded Percent	ages
Date	Assets	Contributions	Beneficiaries	Portion)	(1)	(2)	(3)
1/1/2016	\$47,334,971	\$12,829,719	\$14,350,900	\$8,596,303	100%	100%	100%
1/1/2015	39,772,760	10,736,366	10,903,060	7,358,104	100%	100%	100%
1/1/2014	34,476,002	11,990,004	7,712,307	6,421,345	100%	100%	100%
1/1/2013	29,758,000	12,049,328	5,853,027	5,410,849	100%	100%	100%
1/1/2012	23,666,933	9,883,610	5,280,530	3,668,709	100%	100%	100%
1/1/2011	18,107,030	7,303,256	3,146,943	3,207,826	100%	100%	100%
1/1/2010	15,373,546	7,717,567	2,233,942	2,155,820	100%	100%	100%
1/1/2009	13,642,709	7,488,207	2,201,593	958,912	100%	100%	100%
1/1/2008	14,075,984	9,263,435	1,249,679	(738,208)	100%	100%	100%
1/1/2007	9,624,239	6,372,113	869,103	(941,794)	100%	100%	100%

## ■ Summary of Plan Provisions

### **Plan Description**

The Fire & Police Pension Association Defined Benefit System – Statewide Hybrid Plan ("Plan") was established January 1, 2004 as a cost-sharing multiple-employer pension plan covering full-time firefighters and police officers from departments that elect coverage. The Plan may also cover clerical staff or other fire district personnel whose services are auxiliary to fire protection. The Plan is comprised of two components: Defined Benefit and Money Purchase. With the latter component, members have the option of choosing among various mutual funds offered by an outside investment manager.

Employers may not withdraw from the Plan once affiliated. The Plan assets for the Defined Benefit Component are included in the Fire & Police Members' Benefit Investment Fund and Plan assets associated with the Money Purchase Component and the Deferred Retirement Option Plan "DROP" are included in the Fire & Police Members' Self-Directed Investment Fund.

### **Plan Year**

A twelve-month period ending December 31.

#### **Members Included**

Members included are active employees who are full-time salaried employees of a participating municipality, fire protection district, fire authority, or county improvement district normally serving at least 1,600 hours in a calendar year and whose duties are directly involved with the provision of police or fire protection. The Plan may include clerical and other personnel from fire districts whose service are auxiliary to fire protection.

### **Compensation Considered (Base Salary)**

Base salary means the total base rate of pay including Member Contributions to the Defined Benefit System which are "picked up" by the employer. The definition of Base Salary is subject to the following conditions:

- 1) The definition of Base Salary shall also include longevity pay, sick leave pay taken in the normal course of employment, vacation leave pay taken in the normal course of employment, shift differential, and mandatory overtime that is part of the Member's fixed, periodic compensation.
- 2) Accumulated vacation leave pay shall also be included if a Member completes his/her service requirement for purposes of normal retirement while exhausting accumulated vacation leave.
- 3) Base salary shall not include overtime pay (except as noted in (1) above), step-up pay or other pay for temporarily acting in a higher rank, uniform allowances, accumulated sick leave pay, accumulated vacation leave pay (except as noted in (2) above), and other forms of extra pay (including Member Contributions which are paid by the employer and not deducted from the Member's salary). A member is deemed to be temporarily acting in a higher rank if the appointment to the rank is anticipated to last less than six months.
- 4) In the event an employer has established or does establish a Deferred Compensation Plan in addition to the Defined Benefit System, the amount of the Member's salary that is deferred shall be included in the Member's base salary.
- 5) Any amounts voluntarily contributed to an Internal Revenue Code Section 125 "Cafeteria Plan" shall be included in the Member's base salary.

#### **Contribution Rates**

The Plan sets contribution rates at a level that enables all benefits to be fully funded at the retirement date of all members. The members of this Plan and their employers are currently each contributing at the rate determined by the individual employer, however, the rate for both employer and members must be at least 8 percent of the member's base salary. The amount allocated to the Defined Benefit Component is set annually by the Fire & Police Pension Association Board of Directors. Excess contributions fund the Money Purchase Component of the Plan. The Defined Benefit Component of the total contribution rate for this Plan is noted on the following page:

			Defined Benefit
			Component of the
Effect	tive	Date	<b>Total Contribution</b>
7/1/2016	-	6/30/2017	13.50%
7/1/2015	-	6/30/2016	12.60%
7/1/2014	-	6/30/2015	12.50%
7/1/2013	_	6/30/2014	12.60%
7/1/2012	-	6/30/2013	13.00%
1/1/2012	-	6/30/2012	12.90%
7/1/2011	-	12/31/2011	11.30%
7/1/2010	-	6/30/2011	11.50%
7/1/2009	-	6/30/2010	11.40%
8/1/2008	-	6/30/2009	11.00%
8/1/2007	-	7/31/2008	10.25%
8/1/2006	-	7/31/2007	11.00%

Within the Money Purchase Component, members are always fully vested in their own contributions, as well as the earnings on those contributions. Vesting in the employer's contributions within the Money Purchase Component, and earnings on those contributions occurs according to the vesting schedule set by the Plan document at 20 percent per year after the first year of service to be 100 percent vested after 5 years of service. Employer and member contributions are invested in funds at the discretion of members.

A member may elect to make voluntary after-tax contributions to the Money Purchase Component of the Plan.

## **Highest Average Salaries (HAS)**

The average of the member's highest three annual base salaries.

## **Normal Retirement Date**

A member's Normal Retirement Date shall be the date on which the member has completed at least twenty-five years of credited service and has attained the age of 55.

### **Normal Retirement Benefit**

The annual Normal Retirement Benefit of the Defined Benefit Component is 1.5 percent of the average of the member's highest three years base salary for each year of credited service.

Benefits of the Defined Benefit Component are paid as a monthly life annuity. Optional forms of payment are available.

## **Early Retirement Benefit**

A member shall be eligible for an Early Retirement Benefit within the Defined Benefit Component after completion of thirty years of service or attainment of age 50 with at least five years of credited service. The Early Retirement Benefit shall be the reduction of the Normal Retirement Benefit on an actuarially equivalent basis.

Benefits of the Defined Benefit Component are paid as a monthly life annuity. Optional forms of payment are available.

## **Deferred Retirement Benefit**

Members who qualify for a Normal or Vested Retirement within the Defined Benefit Component may defer the receipt of their defined benefit pension to as late as age 65 and receive the actuarial equivalent of the benefit.

Benefits of the Defined Benefit Component are paid as a monthly life annuity. Optional forms of payment are available.

#### **Terminated Vested Benefit**

A member who terminates with at least five years of active service credit is vested. A vested member who does not withdraw their contributions from the Plan is eligible for a vested benefit within the Defined Benefit Component, payable at age 55. The annual vested benefit is equal to 1.5 percent of the average of the member's highest three years base salary for each year of credited service. Both the highest average salary and service credits are determined at the time the member leaves active employment or enters the Deferred Retirement Option Plan (DROP). Benefits may commence at age 55.

Benefits of the Defined Benefit Component are paid as a monthly life annuity. Optional forms of payment are available.

#### **Severance Benefit**

All members with contributions in the Defined Benefit Component and leaving covered employment with less than five years of service credit are eligible. Optionally, vested members (those with five or more years of service credit) may withdraw their accumulated contributions from the Defined Benefit Component in lieu of the benefits otherwise due.

The member receives a lump-sum payment equal to the sum of their member contributions. Five percent as interest is credited on these contributions. In addition, upon termination, the vested account balance within the Money Purchase Component is available to the member.

#### **Death Benefit of Active Members**

Death must have occurred while an active or an inactive, non-retired member.

Upon the death of an active, unmarried member with no spouse, no dependent children, and no beneficiary, a refund of the member's contributions is paid to the member's estate. If the member was eligible for retirement, a joint and survivor annuity may be paid to the beneficiary when the member would have been age 55.

Survivors (spouse or dependent children) of active members who die prior to retirement eligibility are covered by the benefits provided by the Statewide Death & Disability Plan. For purposes of the Statewide Death & Disability Plan, a spouse includes a partner in a civil union.

## **Optional Forms of Payment**

In addition to a monthly life annuity, the Plan offers members these optional forms of payment on an actuarially equivalent basis:

- Option 1 (Joint and 100% Survivor) A life annuity payable while either the member or his or her beneficiary is alive.
- Option 2 (Joint and 50% Survivor) A life annuity payable to the member while the member is alive, reducing to 50 percent of this amount and payable to the member's beneficiary upon the member's death.
- Option 3 (Joint and 50% Last Survivor) A life annuity payable to the member while both the member and beneficiary are alive, reducing to 50 percent of this amount if either the member or the beneficiary dies.
- Option 4 (Joint and 100% Survivor with "Pop Up") 100 percent of the reduced retirement income payable for the life of the beneficiary upon the death of the retiring member, with the provision that, should the beneficiary predecease the participant, the monthly annuity will revert to the amount that would have been payable under the normal form of payment.
- Option 5 (Joint and 50% Survivor with "Pop Up") –50 percent of the reduced retirement income payable for the life of the beneficiary upon the death of the retiring participant, with the provision that, should the beneficiary predecease the member, the monthly annuity will revert to the amount that would have been payable under the normal form of payment.

Survivor benefits are paid according to the payment option elected by the member at the time of retirement or entry into DROP. Actuarial equivalence is based on tables adopted by the Board.

## **Benefit Adjustments for Benefits in Pay Status**

Benefits to members and beneficiaries may be increased annually on October 1. The amount is based on the Fire & Police Pension Association Board of Directors discretion and can range from 0 percent to 3 percent. Benefit adjustment may begin once the retired member has been receiving retirement benefits for at least 12 calendar months prior to October 1.

### **Deferred Retirement Option Plan (DROP)**

A member may elect to participate in the DROP after reaching eligibility for normal retirement, early retirement or vested retirement and age 55. A member continues to work while participating in the DROP, but must terminate employment within 5 years of entry into the DROP. The member's percentage of retirement benefit is frozen at the time of entry into the DROP. The monthly payments that begin at entry into the DROP are accumulated until the member terminates service, at which time the DROP accumulated benefits can be paid as periodic installments, a lump sum, or if desired a member may elect to convert the DROP to a lifetime monthly benefit with survivor benefits. The member continues to make contributions, which are credited to the DROP. The member shall self-direct the investments of their DROP funds.

### **Changes in Plan Provisions**

The plan provisions have not changed since the prior valuation.

## **Changes in Actuarial Assumptions**

Since the prior valuation, the Board adopted new assumptions based on the 2015 Experience Study. The changes from the prior assumption set are as follows:

#### **Economic Assumptions**

- 1. Reduce the inflation assumption from 3.00% to 2.50%.
- 2. Increase the real rate of return assumption from 4.50% to 5.00%, resulting in no overall change to the nominal return assumption of 7.50%.
- 3. Add an explicit assumption for administrative expenses in the contribution determination.
- 4. Increase the productivity component of the salary scale assumption from 1.00% to 1.50%. Combining with the inflation rate of 2.50% creates ultimate salary scale assumption of 4.00%, which is unchanged from the prior assumption.
- 5. Slightly modify the service-based promotional/longevity component of the salary scale.

# **Mortality Assumptions**

- 6. Update the post-retirement mortality tables for non-disabled retirees to a table based on the RP-2014 generational mortality tables with blue collar adjustment. In addition, update the projected rate of improvement in longevity from Scale AA to the more recently published Scale BB.
- 7. Update the occupationally disabled post-retirement mortality assumption to be the same table as used for the healthy annuitants, except with a three year set-forward.
- 8. Update the pre-retirement off-duty mortality tables to 55% of the RP-2014 mortality tables for active employees. Make no adjustment to the on-duty mortality rate of 0.00020.

#### Other Demographic Assumptions

- 9. Slightly increase the pattern of retirement.
- 10. Combine the termination assumption for police and fire.
- 11. Increase the rates of both occupational and total disability to reflect higher incidence of disability observed during the study period than expected.

### Actuarial Methods and Policies

- 12. Recommend no change to the use of the 5-year smoothing technique to determine the actuarial value of assets, used for determining the annual employer contribution rates.
- 13. Recommend continued use of the Entry Age Actuarial Cost Method.

Two plans from the City of Colorado Springs joined the Fire & Police Pension Association Defined Benefit System as of October 1, 2006. They are now one single-employer defined benefit pension plan, Colorado Springs New Hire Pension Plan ("Plan"), but with a fire component and a police component for fire and police employees hired by the City of Colorado Springs on or after April 8, 1978 but prior to October 1, 2006. The plan is closed to new members as of October 1, 2006.

Employers may not withdraw from the Fire & Police Pension Association Defined Benefit System once elected. The Plan members had opportunities to transfer to the Fire & Police Pension Association Defined Benefit System - Statewide Defined Benefit Plan in conjunction with the administrative change. The Plan assets are included in the Fire & Police Members' Benefit Investment Fund and the Fire & Police Members' Self-Directed Investment Fund (for Deferred Retirement Option Plan "DROP" assets and Separate Retirement Account assets from eligible retired members).

Note: The fire and police components are studied separately.

# ■ Schedule of Active Member Valuation Data

	Valuation Date	Number	Average Age	Average Service	Covered Payroll	Annual Average Pay	% Increase in Average Pay
Police Component	1/1/2016	350	45.8	17.4	\$27,575,061	\$78,786	2.79%
	1/1/2015	384	45.2	16.7	29,432,993	76,648	2.98%
	1/1/2014	409	44.6	16.1	30,441,800	74,430	4.23%
	1/1/2013	426	43.7	15.2	30,420,085	71,409	0.80%
	1/1/2012	443	42.9	14.3	31,381,480	70,839	(0.19%)
	1/1/2011	470	42.2	13.6	33,357,527	70,973	0.02%
	1/1/2010	501	41.5	12.9	35,550,304	70,959	1.41%
	1/1/2009	525	40.7	12.1	36,735,114	69,972	0.71%
	1/1/2008	562	40.1	11.3	39,048,754	69,482	8.42%
	1/1/2007	631	39.4	10.4	40,438,034	64,086	N/A
Fire Component	1/1/2016	130	47.5	18.6	\$11,167,162	\$85,901	2.09%
	1/1/2015	149	47.5	18.6	12,537,370	84,143	4.60%
	1/1/2014	155	46.8	17.8	12,468,196	80,440	4.87%
	1/1/2013	161	46.0	17.0	12,349,627	76,706	1.27%
	1/1/2012	165	45.0	16.0	12,497,987	75,745	1.69%
	1/1/2011	264	43.1	14.0	19,664,027	74,485	(0.39%)
	1/1/2010	288	42.7	13.7	21,535,495	74,776	1.44%
	1/1/2009	305	42.3	13.3	22,483,956	73,718	(1.31%)
	1/1/2008	319	41.7	12.5	23,827,770	74,695	14.54%
	1/1/2007	412	39.7	10.9	26,867,827	65,213	N/A

# ■ Gain | (Loss) on Actuarial Value of Assets

	Police Co	mponent	Fire Com	ponent
	Valuation as of	Valuation as of	Valuation as of	Valuation as of
	January 1, 2016	January 1, 2015	January 1, 2016	January 1, 2015
Actuarial assets, prior valuation	\$253,937,185	\$233,009,247	\$120,350,555	\$111,882,235
Total Contributions since prior valuation	10,409,669	10,559,461	4,640,109	4,627,045
Benefits and refunds since prior valuation	(10,187,956)	(9,260,894)	(6,228,574)	(5,317,236)
Assumed net investment income at actuaria	al rate %*			
Beginning assets	19,045,289	17,475,694	9,026,292	8,391,168
Contributions	390,363	395,980	174,004	173,514
Benefits and refunds paid	(382,048)	(347,283)	(233,572)	(199,396)
Total	\$19,053,604	\$17,524,391	\$8,966,724	\$8,365,286
Expected actuarial assets	\$273,212,502	\$251,832,205	\$127,728,814	\$119,557,330
Actual actuarial assets, this valuation	\$271,515,321	\$253,937,185	\$126,813,938	\$120,350,555
Asset gain (loss) since prior valuation	\$(1,697,181)	\$2,104,980	\$(914,876)	\$793,225
	Loss	Gain	Loss	Gain

<sup>\* 7.5%</sup> as of 1/1/2012

# ■ Schedule of Retirees and Beneficiaries Added To and Removed From Benefit Payroll

	Year Ended	1	dded Payroll* Annual Benefit	1	noved Payroll Annual Benefit	P Number	ayroll Annual Benefit	% Increase in Annual Benefit	Average Annual Benefit
Police	12/31/2015	26	\$1,266,408	1	\$32,035	250	\$10,653,386	13.1%	\$42,614
Component	12/31/2014	24	1,230,728	1	22,383	225	9,419,013	14.7%	41,862
	12/31/2013	9	460,165	2	75,382	202	8,210,668	4.9%	40,647
	12/31/2012	9	428,295	2	73,884	195	7,825,885	4.7%	40,133
•	12/31/2011	25	1,044,739	3	97,040	188	7,471,474	14.5%	39,742
	12/31/2010	21	1,007,007	0	0	166	6,523,775	18.3%	39,300
	12/31/2009	16	791,367	1	14,525	145	5,516,768	16.4%	38,047
	12/31/2008	17	847,350	0	0	130	4,739,926	21.8%	36,461
	12/31/2007	21	897,046	0	0	113	3,892,576	29.9%	34,448
	12/31/2006	14	619,230	0	0	92	2,995,530	N/A	32,560
Fire	12/31/2015	19	\$1,149,542	1	\$37,545	139	\$6,657,408	20.1%	\$47,895
Component	12/31/2014	6	257,233	0	0	121	5,545,411	4.9%	45,830
	12/31/2013	7	275,015	2	71,310	115	5,288,178	4.0%	45,984
	12/31/2012	2	96,704	0	0	110	5,084,473	1.9%	46,222
	12/31/2011	14	711,103	1	18,613	108	4,987,769	16.1%	46,183
	12/31/2010	16	901,143	0	0	95	4,295,279	26.5%	45,213
	12/31/2009	14	725,800	0	0	79	3,394,136	27.2%	42,964
	12/31/2008	11	536,669	0	0	65	2,668,336	25.2%	41,051
	12/31/2007	12	592,154	0	0	54	2,131,667	38.5%	39,475
	12/31/2006	26	1,160,157	0	0	42	1,539,513	N/A	36,655

 $<sup>*</sup>Includes\ Cost-of-Living\ Adjustments\ granted\ since\ the\ prior\ valuation.$ 

# ■ Schedule of Funding Progress

	Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded (Surplus) Actuarial Accrued Liability	Funded Ratio	Covered Payroll	Unfunded (Surplus) Actuarial Accrued Liability as a Percentage of Covered Payroll
Police	1/1/2016	\$271,515,321	\$319,975,168	\$48,459,847	84.9%	\$27,575,061	175.7%
Component	1/1/2015	253,937,185	297,810,707	43,873,522	85.3%	29,432,993	149.1%
	1/1/2014	233,009,247	281,166,840	48,157,593	82.9%	30,441,800	158.2%
	1/1/2013	212,428,394	258,960,907	46,532,513	82.0%	30,420,085	153.0%
	1/1/2012	197,710,046	246,518,300	48,808,254	80.2%	31,381,480	155.5%
	1/1/2011	187,249,190	226,088,133	38,838,943	82.8%	33,357,427	116.4%
	1/1/2010	170,960,335	213,764,095	42,803,760	80.0%	35,550,304	120.4%
	1/1/2009	156,099,012	198,695,916	42,596,904	78.6%	36,735,114	116.0%
	1/1/2008	178,548,098	188,263,199	9,715,101	94.8%	39,048,754	24.9%
	1/1/2007	159,508,243	161,530,980	2,022,737	98.7%	40,438,034	5.0%
Fire	1/1/2016	\$126,813,938	\$157,971,179	\$31,157,241	80.3%	\$11,167,162	279.0%
Component	1/1/2015	120,350,555	145,875,351	25,524,796	82.5%	12,537,370	203.6%
	1/1/2014	111,882,235	138,255,953	26,373,718	80.9%	12,468,196	211.5%
	1/1/2013	103,516,709	129,466,329	25,949,620	80.0%	12,349,627	210.1%
	1/1/2012	98,326,872	124,211,363	25,884,491	79.2%	12,497,987	207.1%
	1/1/2011	108,848,941	127,909,057	19,060,116	85.1%	19,664,027	96.9%
	1/1/2010	100,709,022	121,361,624	20,652,602	83.0%	21,535,495	95.9%
	1/1/2009	92,515,096	113,068,434	20,553,338	81.8%	22,483,956	91.4%
	1/1/2008	104,946,386	107,389,381	2,442,995	97.7%	23,827,770	10.3%
	1/1/2007	98,290,761	99,137,903	847,142	99.1%	26,867,827	3.2%

### **Limitations of Funded Status Measurements**

Unless otherwise indicated, a funded status measurement presented in this chart is based upon the actuarial accrued liability and the actuarial value of assets.

With regard to any funded status measurements presented in this chart:

- (1) The measurement is inappropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations.
- (2) The measurement alone is inappropriate for assessing the need for or the amount of future employer contributions.
- (3) The measurement would produce a different result if the market value of assets were used instead of the actuarial value of a sets, unless the market value of assets is used in the measurement.

# ■ Age and Years of Service Distribution\*

	Valuation Date	Average Age	Average Service
Police Component	1/1/2016	45.8	17.4
	1/1/2015	45.2	16.7
	1/1/2014	44.6	16.1
	1/1/2013	43.7	15.2
	1/1/2012	42.9	14.3
	1/1/2011	42.2	13.6
	1/1/2010	41.5	12.9
	1/1/2009	40.7	12.1
	1/1/2008	40.1	11.3
	1/1/2007	39.4	10.4
Fire Component	1/1/2016	47.5	18.6
	1/1/2015	47.5	18.6
	1/1/2014	46.8	17.8
	1/1/2013	46.0	17.0
	1/1/2012	45.0	16.0
	1/1/2011	43.1	14.0
	1/1/2010	42.7	13.7
	1/1/2009	42.3	13.3
	1/1/2008	41.7	12.5
	1/1/2007	39.7	10.9

<sup>\*</sup>A breakdown by age/service was not available in the actuarial valuations.

#### **Solvency Test**

The Fire & Police Pension Association's funding objective for the Defined Benefit System – Colorado Springs New Hire Pension Plan is to be able to pay the retirement benefits promised to the members including the granting of an annual cost-of-living increase to all retirees and beneficiaries. Contribution rates are actuarially determined each year as the sum of the normal cost and the amortization of the unfunded accrued liability over a period of 22 years from the January 1, 2016 valuation. The Board of Directors then certifies the rates allocated to the fire and police components of the Colorado Springs New Hire Pension Plan such that the rates will remain relatively stable over time and that will meet this financing objective. As of January 1, 2016, the fire plan annual required contribution is \$4,522,810. Of this amount the members of the plan contribute 10% of basic salary and the employer remitted the remainder. Effective January 1, 2017, the fire plan annual required contribution is \$5,132,890. For the police plan, the annual required contribution for 2016 was \$9,645,675. Of this amount the members of the plan contributed 8% of basic salary and the employer remitted the remainder. Effective January 1, 2017, the annual required contribution is \$10,368,391.

A short-term solvency test is used to check the funding progress towards its funding objective. In a short-term solvency test, the plan's present assets are compared with: (1) liability for active member contributions on deposit, (2) liability for future benefits to present retired lives, (3) liability for service already rendered by active members.

Expressing the net assets available for benefits as a percentage of the different liability measures provides one indication of the funding status on a going-concern basis. Generally, the greater the percentages, the stronger the public employee retirement system. The following schedule illustrates the progress in funding the various liability measures. As can be seen by the funded percentages, the liabilities are not covered by current assets.

# Solvency Test

			Aggrega	nte Accrued Liak	oilities For	l		
	Valuation Date	Valuation Assets (000's)	(1) Active Member Contributions (000's)	(2) Retirees and Beneficiaries (000's)	(3) Active Members (Employer Financed Portion) (000's)	Fund	ded Perc	entages (3)
Police	1/1/2016	\$271,515	\$30,658	\$161,841	\$127,476	100%	100%	62.0%
Component	1/1/2015	253,937	31,514	139,420	126,876	100%	100%	65.4%
	1/1/2014	233,009	31,545	124,081	125,541	100%	100%	61.6%
	1/1/2013	212,428	30,326	118,304	110,331	100%	100%	57.8%
	1/1/2012	197,710	29,048	112,336	105,134	100%	100%	53.6%
	1/1/2011	187,249	28,721	96,564	100,804	100%	100%	61.5%
	1/1/2010	170,960	28,025	82,218	103,521	100%	100%	58.7%
	1/1/2009	156,099	26,693	70,017	101,986	100%	100%	58.2%
	1/1/2008	178,548	26,162	57,986	104,116	100%	100%	90.7%
	1/1/2007	159,508	25,345	45,637	90,549	100%	100%	97.8%
Fire	1/1/2016	\$126,814	\$13,776	\$97,364	\$46,831	100%	100%	33.5%
Component	1/1/2015	120,351	15,131	78,621	52,124	100%	100%	51.0%
	1/1/2014	111,882	14,705	75,027	48,525	100%	100%	45.6%
	1/1/2013	103,517	13,989	72,425	43,053	100%	100%	39.7%
	1/1/2012	98,327	12,800	70,830	40,581	100%	100%	36.2%
	1/1/2011	108,849	17,297	59,509	51,103	100%	100%	62.7%
•••••	1/1/2010	100,709	17,531	46,439	57,391	100%	100%	64.0%
	1/1/2009	92,515	17,117	36,551	59,400	100%	100%	65.4%
•••••	1/1/2008	104,946	16,186	29,492	61,711	100%	100%	96.0%
	1/1/2007	98,291	17,106	21,479	60,554	100%	100%	98.6%

# ■ Summary of Plan Provisions

# **Police Component**

### **Plan Year**

A twelve-month period ending December 31.

### **Members Included**

Members included are active employees hired on or after April 8, 1978 but prior to October 1, 2006. As of October 1, 2006, administration of the plan has been transferred to the Fire & Police Pension Association and the plan has been closed. All members hired on or after October 1, 2006 will become members of the Fire & Police Pension Association Defined Benefit System - Statewide Defined Benefit Plan.

# **Compensation Considered**

Basic salary, including longevity pay, sick pay taken in the normal course of employment, vacation leave pay taken in the normal course of employment, third-week pay and mandatory overtime that is part of the members annual fixed periodic compensation. Also, all salary amounts deferred for 457 or Section 125 "cafeteria plan" are included.

### **Contribution Rates**

The Plan sets contribution rates at a level that enables all benefits to be fully funded at the retirement date of all members within each component as determined by the actuarial study. Effective January 1, 2016, the Police Component actuarially de-

termined contribution was \$9,645,675. Of this amount the members of the Plan contributed 8 percent of basic salary and the employer remitted the remainder. Effective January 1, 2017, the actuarially determined contribution is \$10,368,391.

#### **Final Average Salary**

Final Average Salary is the average of monthly basic salary compensation awarded to the member during the eighteen months immediately preceding termination or retirement.

#### **Normal Retirement Date**

A member's Normal Retirement Date shall be the date on which the member has completed at least 25 full years of credited service and has attained age of 50.

#### **Normal Retirement Benefit**

Any member who elects to retire on or after his Normal Retirement Date shall be eligible for a monthly pension equal to 2 percent of Final Average Salary for each full year of service for the first 10 years, plus 2.75 percent of Final Average Salary for each full year of service in excess of 10 years. The maximum monthly pension is 75 percent of Final Average Salary. The maximum pension is earned upon completing 30 years of service.

#### **Early Retirement Benefit**

A member under the Police Component who has a minimum of 20 years of service is eligible to receive a reduced, early retirement pension benefit beginning at age 45. The early retirement pension benefit shall be equal to 2 percent of Final Average Salary for each full year of service for the first 10 years, plus 2.75 percent for each full year of service thereafter, not to exceed the maximum monthly pension benefit of 75 percent, reduced by 7.5 percent for each year and portion thereof that the benefit commences prior to age 50.

Any member hired prior to May 1, 2001, who has completed at least 20 years of service and who has attained the age of 45 years may elect to retire from active service but shall receive 50 percent of the member's Final Average Salary, with that amount reduced by 0.5 percent for each month or portion thereof that such member lacks to attain the age of 50 years as of the date of retirement.

Any member hired after April 30, 2001, and before October 1, 2003, who has completed at least 20 years of service prior to attaining the age of 45 years may elect to retire from active service shall receive 50 percent of the member's Final Average Salary, with that amount reduced by 0.5 percent for each month or portion thereof that such member lacks to attain the age of 50 years as of the date of retirement.

### **Deferred Retirement Benefit**

Any member retiring and eligible for a Normal Retirement Benefit may elect to defer receipt of such pension until attaining the age of 65 years. In the case of such an election, the annual deferred retirement pension shall be actuarially equivalent to the normal retirement pension.

### **Terminated Vested Benefit**

A member who terminates with at least ten years of active service may leave the contributions in the Plan and when the member attains age 50 be eligible to receive a monthly vested benefit equal to 2 percent of Final Average Salary for each full year of credited service for the first 10 years, plus 2.75 percent of Final Average Salary for each full year of credited service in excess of 10 years. The maximum benefit is 75 percent of Final Average Salary.

#### **Severance Benefit**

In lieu of a future pension, a member may upon termination elect to have the accumulated member contributions refunded in a lump sum. Interest is credited at 5 percent per annum.

# **Death & Disability Benefit of Active Members**

Disabled members and survivors (spouse or dependent children) of active members who die prior to retirement eligibility are covered by the benefits provided by the Fire & Police Pension Association Statewide Death & Disability Plan.

#### **Post-Retirement Death Benefit**

If a retired member dies, the "qualified surviving spouse" shall receive, until death, a monthly pension equal to 70 percent of the monthly benefit the member was receiving prior to death, including cost-of-living increases. If there is no "qualified surviving spouse"

or if the qualified surviving spouse dies, each qualified surviving child should receive equal shares of the qualified surviving spouses benefit, as long as the child remains a "qualified child." For purposes of this Plan, a spouse includes a partner in a civil union.

#### Cost-of-Living Adjustment (COLA)

Benefits are increased to reflect increases in the consumer price index but in no case may benefits be increased by more than 3 percent for any one year. Cost-of-living adjustments begin on October 1st immediately prior to the earlier of attainment of age 60 or ten years after benefit payments commenced.

#### **Deferred Retirement Option Plan (DROP)**

A member may elect to participate in the DROP after reaching eligibility for Normal Retirement. A member continues to work while participating in the DROP, but must terminate employment within 5 years of entry into the DROP. The member's percentage of retirement benefit is frozen at the time of entry into the DROP. The monthly payments that begin at entry into the DROP are accumulated until the member terminates service, at which time the DROP accumulated benefits can be paid as a lump sum, if desired. The member continues contributing the member contribution rate which is credited to the DROP. Effective March 1, 2003, the member shall self-direct the investments of their DROP funds.

#### **Purchase of Service Credit**

Active members of this Plan may purchase service credit for other employment completed within the United States not covered by this Plan. The cost of such service credit purchase shall be determined by the Fire & Police Pension Association Board of Directors and shall be on an actuarially equivalent basis. A member shall not be allowed to purchase service credit to the extent that the additional accrued benefits derived from the purchased service credit would result in the annual amount of the member's benefit exceeding the annual benefit limitation for defined benefit plans as determined under section 415 of the Internal Revenue Code (Ord. 02-114).

#### Stabilization Reserve Account (SRA)

Annually, at the discretion of the Fire & Police Pension Association Board of Directors, a contribution may be allocated to the SRA based on the actuarial study for the previous year. Amounts set aside in the SRA are allocated to individual accounts for each member. A member may receive the amount in this individual account upon election of normal, early vested, disability or deferred retirement, or in the event of the active member's death. If the cost of the defined benefit plan exceeds the combined member/employer contribution rate, funds from the SRA may be used to make up the shortfall. Effective January 1, 2008, the Separate Retirement Account contribution rate for members of the Police Component was set at 0 percent. The rate will remain at 0 percent for calendar years 2016 and 2017.

#### **Changes in Plan Provisions**

The plan provisions have not changed since the prior valuation.

#### **Fire Component**

#### **Plan Year**

A twelve-month period ending December 31.

#### **Members Included**

Members included are active employees hired on or after April 8, 1978 but prior to October 1, 2006. As of October 1, 2006, administration of the plan has been transferred to the Fire & Police Pension Association and the plan has been closed. All members hired on or after October 1, 2006 will become members of the Fire & Police Pension Association Defined Benefit System - Statewide Defined Benefit Plan.

#### **Compensation Considered**

Basic salary, including longevity pay, sick pay taken in the normal course of employment, vacation leave pay taken in the normal course of employment, third week pay and mandatory overtime (including Annual Pay in lieu of leave) that is part of the members annual fixed periodic compensation. Also, all salary amounts deferred for 457 or Section 125 "cafeteria plan" are included.

#### **Contribution Rates**

The Plan sets contribution rates at a level that enables all benefits to be fully funded at the retirement date of all members within each component as determined by the actuarial study. Effective January 1, 2016, the Fire Component actuarially determined contribution is \$4,522,810. Of this amount the members of the Plan contribute 10 percent of basic salary and the employer remitted the remainder. Effective January 1, 2017, the actuarially determined contribution is \$5,132,890.

### **Final Average Salary**

Final Average Salary is the average of monthly basic salary compensation awarded to the member during the eighteen months immediately preceding termination or retirement.

#### **Normal Retirement Date**

A member's Normal Retirement Date shall be the date on which the member has completed at least 25 years of credited service and has attained age of 55.

#### **Normal Retirement Benefit**

Any member who elects to retire on or after his Normal Retirement Date shall be eligible for a monthly pension equal to 2 percent of Final Average Salary for each year of service for the first 10 years, plus 2.85 percent of Final Average Salary for each year of service in excess of 10 years. The maximum monthly pension is 77 percent of Final Average Salary. The maximum pension is earned upon completing 30 years of service.

### **Early Retirement Benefit**

A member shall be eligible for an Early Retirement Benefit payable on or after the attainment of age 50 and completion of 20 years of service. The Early Retirement Benefit is 2 percent of Final Average Salary for each year of service for the first 10 years, plus 2.85 percent of Final Average Salary for each year of service in excess of 10 years. The maximum monthly pension is 77 percent of Final Average Salary. The Early Retirement Benefit shall be reduced 4.615 percent for each year that the benefit commences before age 55.

#### **Deferred Retirement Benefit**

Any member retiring and eligible for a Normal Retirement Benefit may elect to defer receipt of such pension until attaining the age of 65 years. In the case of such an election, the annual deferred retirement pension shall be actuarially equivalent to the normal retirement pension.

### **Terminated Vested Benefit**

A member who terminates with at least ten years of active service may leave the contributions in the Plan and when the member attains age 55 be eligible to receive a monthly vested benefit equal to 2 percent of Final Average Salary for each year of credited service for the first 10 years, plus 2.85 percent of Final Average Salary for each year of credited service in excess of 10 years. The maximum benefit is 77 percent of Final Average Salary.

# **Severance Benefit**

In lieu of a future pension, a member may upon termination elect to have the accumulated contributions refunded in a lump sum. Interest is credited at 5 percent per annum.

### **Death & Disability Benefit of Active Members**

Disabled members and survivors (spouse or dependent children) of active members who die prior to retirement eligibility are covered by the benefits provided by the Fire & Police Pension Association Statewide Death & Disability Plan.

#### **Post-Retirement Death Benefit**

If a retired member dies, the "qualified surviving spouse" shall receive, until death, a monthly pension equal to 70 percent of the monthly benefit the member was receiving prior to death, including cost-of-living increases. If there is no "qualified surviving spouse" or if the qualified surviving spouse dies, each qualified surviving child should receive equal shares of the qualified surviving spouses benefit, as long as the child remains a "qualified child." For purposes of this Plan, a spouse includes a partner in a civil union.

# **Cost-of-Living Adjustment (COLA)**

Benefits are increased to reflect increases in the consumer price index but in no case may benefits be increased by more than 3 percent for any one year. Cost-of-living adjustments begin on October 1st immediately prior to the earlier of attainment of age 65 or ten years after benefit payments commenced.

#### **Deferred Retirement Option Plan (DROP)**

A member may elect to participate in the DROP after reaching eligibility under "Rule of 75" with a minimum age of 50 years. This means that a member must attain age 50 and the sum of his or her credited service must total 75 or greater at date of severance in order to qualify for the DROP program. A member continues to work while participating in the DROP, but must terminate employment within 5 years of entry into the DROP. The member's percentage of retirement benefit is frozen at the time of entry into the DROP. The monthly payments that begin at entry into the DROP are accumulated until the member terminates service, at which time the DROP accumulated benefits can be paid as a lump sum, if desired. The member continues contributing the

member contribution rate which is credited to the DROP. The member shall self-direct the investments of their DROP funds.

#### **Purchase of Service Credit**

Active members of this Plan may purchase service credit for other employment completed within the United States not covered by this Plan. The cost of such service credit purchase shall be determined by the Fire & Police Pension Association Board of Directors and shall be on an actuarially equivalent basis. A member shall not be allowed to purchase service credit to the extent that the additional accrued benefits derived from the purchased service credit would result in the annual amount of the member's benefit exceeding the annual benefit limitation for defined benefit plans as determined under section 415 of the Internal Revenue Code (Ord. 04-107).

#### **Stabilization Reserve Account (SRA)**

Annually, at the discretion of the Fire & Police Pension Association Board of Directors, a contribution may be allocated to the SRA based on the actuarial study for the previous year. Amounts set aside in the SRA are allocated to individual accounts for each member. A member may receive the amounts in this individual account upon election of normal, vested, early, disability or deferred retirement, or in the event of the active member's death. If the cost of the defined benefit plan exceeds the combined member/employer contribution rate, funds from the SRA may be used to make up the shortfall. Effective January 1, 2008, the Separate Retirement Account contribution rate for members of the Fire Component was set at 0 percent. The rate will remain at 0 percent for calendar years 2016 and 2017.

#### **Changes in Plan Provisions**

The plan provisions have not changed since the prior valuation.

#### **Changes in Actuarial Assumptions**

Since the prior valuation, the Board adopted new assumptions based on the 2015 Experience Study. The changes from the prior assumption set are as follows:

# **Economic Assumptions**

- 1. Reduce the inflation assumption from 3.00% to 2.50%.
- 2. Increase the real rate of return assumption from 4.50% to 5.00%, resulting in no overall change to the nominal return assumption of 7.50%.
- 3. Add an explicit assumption for administrative expenses in the contribution determination.
- 4. Increase the productivity component of the salary scale assumption from 1.00% to 1.50%. Combining with the inflation rate of 2.50% creates ultimate salary scale assumption of 4.00%, which is unchanged from the prior assumption.
- 5. Slightly modify the service-based promotional/longevity component of the salary scale.

# **Mortality Assumptions**

- 6. Update the post-retirement mortality tables for non-disabled retirees to a table based on the RP-2014 generational mortality tables with blue collar adjustment. In addition, update the projected rate of improvement in longevity from Scale AA to the more recently published Scale BB.
- 7. Update the occupationally disabled post-retirement mortality assumption to be the same table as used for the healthy annuitants, except with a three year set-forward.
- 8. Update the pre-retirement off-duty mortality tables to 55% of the RP-2014 mortality tables for active employees. Make no adjustment to the on-duty mortality rate of 0.00020.

# Other Demographic Assumptions

- 9. Slightly increase the pattern of retirement.
- 10. Combine the termination assumption for police and fire.
- 11. Increase the rates of both occupational and total disability to reflect higher incidence of disability observed during the study period than expected.

#### Actuarial Methods and Policies

- 12. Recommend no change to the use of the 5-year smoothing technique to determine the actuarial value of assets, used for determining the annual employer contribution rates.
- 13. Recommend continued use of the Entry Age Actuarial Cost Method.

# Statewide Death & Disability Plan

# ■ Schedule of Active Member Valuation Data

Valuation Date	Number	Average Age	Average Service	Annual Payroll (000's)	Annual Average Pay	% Increase in Average Pay
1/1/2016	11,681	41.7	11.3	\$863,106	\$73,890	1.70%
1/1/2015	11,391	41.8	11.5	827,633	72,657	1.66%
1/1/2014	11,341	41.7	11.5	810,578	71,473	0.59%
1/1/2013	11,076	41.8	11.7	787,010	71,055	3.00%
1/1/2012	10,958	41.6	11.5	755,952	68,986	0.22%
1/1/2011	10,903	41.4	11.3	750,497	68,834	1.42%
1/1/2010	11,077	40.8	10.9	751,781	67,869	3.77%
1/1/2009	11,157	40.3	10.4	729,724	65,405	7.34%
1/1/2008	10,971	40.0	10.1	668,502	60,934	3.56%
1/1/2007	10,600	39.9	10.2	623,699	58,840	2.02%

# ■ Gain | (Loss) on Actuarial Value of Assets

	Valuation as of January 1, 2016	Valuation as of January 1, 2015
Actuarial assets, prior valuation	\$345,009,408	\$325,180,768
Total contributions since prior valuation	16,937,907	15,508,737
Benefits since prior valuation	(24,096,515)	(22,720,490)
Assumed net investment income at actuarial rat	re %*	
Beginning assets	25,875,706	24,388,558
Contributions	635,172	581,578
Benefits paid	(903,619)	(852,018)
Total	\$25,607,259	\$24,118,118
Expected actuarial assets	\$363,458,059	\$342,087,133
Actual actuarial assets, this valuation	\$361,070,410	\$345,009,408
Asset gain (loss) since prior valuation	\$(2,387,649)	\$2,922,275
	Loss	Gain

<sup>\*7.5%</sup> as of 1/1/2012

# ■ Schedule of Retirees and Beneficiaries Added To and Removed From Benefit Payroll

	Added	to Payroll	Removed f	rom Payroll	Payroll		% Increase	Average
Year Ended	Number	Annual Benefit	Number	Annual Benefit	Number	Annual Benefit	in Annual Benefit	Annual Benefit
12/31/2015	52	\$1,797,136	9	\$184,015	1,063	\$24,895,085	6.93%	\$23,420
12/31/2014	67	2,082,872	15	299,192	1,020	23,281,964	8.30%	22,825
12/31/2013	56	1,853,252	16	341,854	968	21,498,284	7.56%	22,209
12/31/2012	56	1,721,508	9	166,231	928	19,986,885	8.44%	21,538
12/31/2011	46	1,239,908	18	414,489	881	18,431,608	4.69%	20,921
12/31/2010	50	1,366,173	9	185,774	853	17,606,189	7.19%	20,640
12/31/2009	54	1,537,193	14	312,334	812	16,425,790	8.06%	20,229
12/31/2008	45	1,259,221	20	339,442	772	15,200,931	6.44%	19,690
12/31/2007	39	1,264,925	16	258,356	747	14,281,152	7.58%	19,118
12/31/2006	78	2,061,528	11	223,439	724	13,274,583	6.06%	18,335

# ■ Schedule of Funding Progress

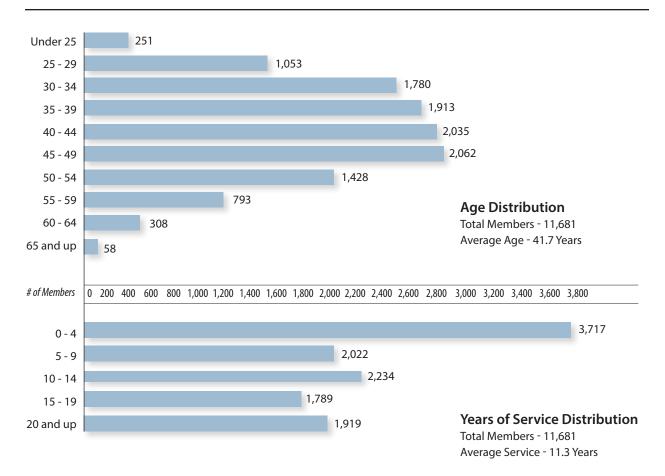
Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded (Surplus) Actuarial Accrued Liability	Funded Ratio		Infunded (Surplus) Actuarial Accrued Liability as a Percentage of Covered Payroll
Results Using the Ago	gregate Funding Me	thod				
1/1/2016	\$361,070,410	\$344,781,994	\$(16,288,416)	104.7%	\$863,105,687	(1.9%)
1/1/2015	345,009,408	298,128,930	(46,880,478)	115.7%	827,633,440	(5.7%)
1/1/2014	325,180,768	284,820,249	(40,360,519)	114.2%	810,578,220	(5.0%)
1/1/2013	305,454,945	272,350,253	(33,104,692)	112.2%	787,009,650	(4.2%)
1/1/2012	290,988,339	255,841,269	(35,147,071)	113.7%	755,952,497	(4.6%)
1/1/2011	281,577,454	260,688,472	(20,888,983)	108.0%	750,497,200	(2.8%)
1/1/2010	266,477,875	250,709,436	(15,768,440)	106.3%	758,113,476	(2.1%)
1/1/2009	257,279,496	241,813,411	(15,466,086)	106.4%	740,172,854	(2.1%)
1/1/2008	300,642,721	223,999,678	(76,643,044)	134.2%	679,223,009	(11.3%)
1/1/2007	274,091,581	258,243,478	(15,848,103)	106.1%	631,667,107	(2.5%)

This plan is valued under the Aggregate Funding Method, where the Actuarial Accrued Liability is set equal to the assets, resulting in no Unfunded Actuarial Accrued Liability and a Funded Ratio of 100%. The Actuarial Accrued Liability reported here is the Present Value of Projected Benefits, less the Present Value of Projected Member Contributions.

Since the Aggregate Funding Method presented in the previous chart does not identify or separately amortize unfunded actuarial liabilities, information about the Statewide Death & Disability Plan's funded status and funding progress has been prepared using the Entry Age Funding Method for this purpose. The information presented below is intended to serve as a surrogate for the funded status and funding progress of the plan. Data is only available since 2007.

1/1/2016	\$361,070,410	\$347,242,942	\$(13,827,468)	104.0%	\$863,105,687	(1.6%)
1/1/2015	345,009,408	311,334,019	(33,675,389)	110.8%	827,633,440	(4.1%)
1/1/2014	325,180,768	289,577,412	(35,603,356)	112.3%	810,578,220	(4.4%)
1/1/2013	305,454,945	274,068,253	(31,386,692)	111.5%	787,009,650	(4.0%)
1/1/2012	290,988,339	253,869,640	(37,118,699)	114.6%	755,952,497	(4.9%)
1/1/2011	281,577,454	229,959,016	(51,618,438)	122.4%	750,497,200	(6.9%)
1/1/2010	266,477,875	216,103,895	(50,373,980)	123.3%	758,113,476	(6.6%)
1/1/2009	257,279,496	203,673,786	(53,605,710)	126.3%	740,172,854	(7.2%)
1/1/2008	300,642,721	182,814,659	(117,828,062)	164.5%	679,223,009	(17.3%)
1/1/2007	274,091,581	194,159,323	(79,932,258)	141.2%	631,667,107	(12.7%)

### ■ Age and Years of Service Distribution



#### **Solvency Test**

The Fire & Police Pension Association's funding objective for the Statewide Death & Disability Plan is to be able to pay the death and disability benefits promised to the members including the granting of an annual benefit adjustment to all retirees and beneficiaries. The objective is to entirely fund these promised benefits by the contribute rate. For Colorado firefighters and police officers hired on or after January 1, 1997, a percentage of each member's base salary is required for coverage under the plan. In 2016, the contribution rate was 2.6%. Effective January 1, 2017, the contribution rate will increase to 2.7%.

A short-term solvency test is used to check the funding progress towards its funding objective. In a short-term solvency test, the plan's present assets are compared with: (1) liability for active member contributions on deposit, (2) liability for future benefits to present retired lives, (3) liability for service already rendered by active members.

Expressing the net assets available for benefits as a percentage of the different liability measures provides one indication of the funding status on a going-concern basis. Generally, the greater the percentages, the stronger the public employee retirement system.

The following schedule illustrates the progress in funding the various liability measures. As can be seen by the funded percentages, the liabilities are 100% covered by current assets. This plan does not have any unfunded liability and current contributions exceed the cost of annual benefit accruals.

### Solvency Test

		Aggreg	gate Accrued Liab	ilities For			
Valuation	Valuation Assets	(1) Active Member Contributions	(2) Retirees and Beneficiaries	(3) Active Members (Employer Financed Portion)		ded Percen	<b>.</b>
Date	(000's)	(000's)	(000's)	(000's)	(1)	(2)	(3)
1/1/2016	\$361,070	\$0	\$296,216	\$48,566	100%	100%	100%
1/1/2015	345,009	0	268,883	29,246	100%	100%	100%
1/1/2014	325,181	0	247,646	37,174	100%	100%	100%
1/1/2013	305,455	0	230,546	41,804	100%	100%	100%
1/1/2012	290,988	0	212,239	43,602	100%	100%	100%
1/1/2011	281,577	0	191,243	69,445	100%	100%	100%
1/1/2010	266,478	0	178,039	72,671	100%	100%	100%
1/1/2009	257,279	0	165,740	76,074	100%	100%	100%
1/1/2008	300,643	0	154,614	69,386	100%	100%	100%
1/1/2007	274,092	0	143,706	114,537	100%	100%	100%

# ■ Summary of Plan Provisions

#### **Plan Description**

The Fire & Police Pension Association Statewide Death & Disability Plan ("Plan") is a cost-sharing multiple-employer defined benefit death and disability plan covering full-time employees of substantially all fire and police departments in Colorado. As of August 1, 2003, the Plan may include part-time police and fire employees. Contributions to the Plan are used for the payment of death and disability benefits. Employers who are covered by Social Security may elect supplementary coverage by the Plan. The Plan was established in 1980 pursuant to Colorado Revised Statutes. The Plan assets are included in the Fire & Police Members' Benefit Investment Fund.

Plan benefits provide 24-hour coverage, both on- and off-duty and are available for members not eligible for normal retirement under a defined benefit plan, or members who have not met 25 years of accumulated service and age 55 under a money purchase plan.

In the case of an on-duty death, benefits may be payable to the surviving spouse and/or dependent children of active members who were eligible to retire, but were still working. On-duty death and disability benefits are free from state and federal taxes in the event that a member's disability is determined to be the result of an on-duty injury or an occupational disease.

#### **Plan Year**

A twelve-month period ending December 31.

#### **Members Included**

Members included are active employees who are full-time salaried employees of a participating municipality or fire protection district normally serving at least 1,600 hours in a calendar year and whose duties are directly involved with the provision of police or fire protection. As of August 1, 2003, the Plan may include part-time police and fire employees. A department chief who elects to be exempted from the Fire & Police Pension Association Defined Benefit System and covered under Social Security or Colorado Public Employees Retirement Association shall not be covered by the Plan.

#### **Compensation Considered (Base Salary)**

Base salary means the total base rate of pay including Member Contributions to the Statewide Defined Benefit Plan or Statewide Money Purchase Plan (or contributions to any alternate retirement plan) which are "picked up" by the employer:

- 1) And shall also include longevity pay, sick leave pay taken in the normal course of employment, vacation leave pay taken in the normal course of employment, shift differential, and mandatory overtime that is part of the Member's fixed, periodic compensation.
- 2) Accumulated vacation leave pay will also be included if a Member completes his/her service requirement for purposes of Normal retirement while exhausting accumulated vacation leave.
- 3) Base salary shall not include overtime pay (except as noted in the preceding sentence), step-up pay or other pay for temporarily acting in a higher rank, uniform allowances, accumulated sick leave pay, accumulated vacation leave pay (except as noted in the preceding sentence), and other forms of extra pay (including Member Contributions which are paid by the employer and not deducted from the Member's salary).
- 4) In the event an employer has established or does establish a Deferred Compensation Plan, the amount of the Member's salary that is deferred shall be included in the Member's base salary.
- 5) Any amounts voluntarily contributed to an Internal Revenue Code Section 125 "Cafeteria Plan" shall be included in the Member's base salary. A Member is deemed temporarily acting in a higher rank if the appointment to the rank is anticipated to last less than six months.
- 6) The base salary under the Plan for each Member of the Colorado Springs New Hire Pension Plan shall be the same as the basic salary as defined in the Colorado Springs New Hire Pension Plan.

# **Contribution Rates**

Prior to 1997, the Plan was primarily funded by the State of Colorado, whose contributions were established by Colorado statute. In 1997 the State made a one-time contribution of \$39,000,000 to fund past and future service costs for all firefighters and police officers hired prior to January 1, 1997. No further State contributions are anticipated.

Members hired on or after January 1, 1997 and members covered by Social Security, began contributing 2.4 percent of base salary to this Plan as of January 1, 1997. The contribution increased to 2.6 percent of base salary as of January 1, 2007. The contribution rate will increase to 2.7 percent of base salary as of January 1, 2017. This percentage can vary depending on actuarial experience. All contributions are made by members or on behalf of members. The contribution may be paid entirely by the employer or member, or it may be split between the employer and the member.

### **Pre-Retirement Death Benefits**

If a member dies prior to normal retirement eligibility while off-duty, the surviving spouse shall receive a benefit equal to 40 percent of the monthly base salary paid to the member prior to death. An additional 10 percent of base salary is payable if a surviving spouse has two or more dependent children. If there is no surviving spouse, but the member had one or two dependent children, the benefit payable is 40 percent of the member's monthly base salary. If there is no spouse but three or more dependent children, the benefit equals 50 percent of the member's monthly base salary.

As of October 15, 2002, if a member dies prior to retirement while on-duty; the surviving spouse shall receive a benefit equal to 70 percent of the member's monthly base salary regardless of the number of dependent children. If there is no spouse but one or more dependent children living in the member's household the benefit equals 70 percent of the member's monthly base salary. If there are dependent children without a surviving spouse, and they do not live in the household, the benefit is 40 percent for the first child and 15 percent for each additional child, but not greater than 70 percent in total. Benefits will be paid to the spouse until death and to dependent children until, death, marriage or other termination of dependency.

For purposes of this Plan, a spouse includes a partner in a civil union. These benefits are offset by Money Purchase account balances, Stabilization Reserve Accounts ("SRA") and Deferred Retirement Option Plan ("DROP") accounts, converted to annuities.

#### **Disability Benefits**

The Plan provides the members with two types of disability: occupational and total.

Occupational Disability means a member is unable to perform his/her assigned duties due to a medical condition that is expected to last at least 1 year. Assigned duties are those specific tasks or job duties that a member is required to regularly perform. Within the Occupational Disability category, there are two sub-categories: Temporary Occupational Disability and Permanent Occupational Disability.

Temporary Occupational Disability is an occupational disability for which there is prognosis for improvement or recovery through surgical treatment, counseling, medication, therapy or other means.

Permanent Occupational Disability is an occupational disability caused by a condition that is permanent or degenerative and for which there is no prognosis for improvement or recovery through surgical treatment, counseling, medication, therapy or other means.

Total Disability means the member is unable to engage in any substantial gainful activity due to a medically determined physical or mental impairment that may be expected to result in death or that has lasted or is expected to last at least 1 year.

A member who becomes disabled prior to normal retirement eligibility shall be eligible for disability benefits.

If the member is totally disabled, he shall receive 70 percent of his base salary preceding disability.

If the member is occupationally disabled and his disability is determined to be a permanent occupational disability, he shall receive 50 percent of his base salary preceding disability regardless of his family status. If the member is occupationally disabled and his disability is determined to be a temporary occupational disability, he shall receive 40 percent of his base salary preceding disability regardless of his family status for up to five years.

Total disability and permanent occupational disability benefits are offset by the Money Purchase, DROP or SRA balances, converted to annuities. For member's who also participate in Social Security, disability benefits are reduced by Social Security disability benefits derived from employment as a member, if applicable.

Temporary Occupational Disability benefits are payable for a maximum of five years. Permanent Occupational and Total Disability benefits are payable as long as the member remains disabled.

#### Offsets for SRA, Money Purchase Balances, and DROP

Plan benefits are reduced by the actuarially equivalent annuities of the SRA, Money Purchase, and DROP account balances. A maximum of 16 percent (or 20 percent for reentry members) of the annual Money Purchase contributions apply for this purpose. Benefits provided by the Plan are also offset by any defined benefit that the member may have received due to work as a Colorado firefighter or police officer.

Spousal income, IRAs, insurance benefits, legal awards, and other investment incomes are not subject to any offset. Deferred compensation accounts are generally not subject to an offset. However, if a department chief has contributions directed to a deferred compensation plan in lieu of a pension plan, the benefit award is offset based on the amount in the deferred compensation account. The amount of the offset is calculated in the same manner as the money purchase offset.

Actuarial equivalence is based on tables adopted by the Fire & Police Pension Association Board of Directors.

### **Optional Forms of Payment**

In addition to a monthly life annuity, the Plan offers disabled members these optional forms of payment on an actuarially equivalent basis:

- Option 1 (Joint and 100% Survivor) A life annuity payable while either the participant or his beneficiary is alive.
- Option 2 (Joint and 50% Survivor) A life annuity payable to the member while the member is alive, reducing to 50 percent of this amount and payable to the beneficiary upon the member's death.
- Option 3 (Family Benefit) A life annuity payable to the member while both the member and beneficiary are alive. If the member dies, the survivor annuity will continue until the surviving spouse dies, until the youngest child reaches 23, or until death of any incapacitated child, whichever is later.

Actuarial equivalence is based on tables adopted by the Fire & Police Pension Association Board of Directors.

### **Benefit Adjustments for Benefits in Pay Status**

A benefit adjustment of up to 3 percent may be granted to members and survivors by the Fire & Police Pension Association Board of Directors annually. Totally disabled members and their beneficiaries receive an automatic benefit adjustment each year of 3 percent. The benefit adjustment is effective October 1st. A benefit adjustment may begin after receiving benefits for at least 12 calendar months prior to October 1.

#### **Changes in Plan Provisions**

The plan provisions have not changed since the prior valuation.

#### **Changes in Actuarial Assumptions**

Since the prior valuation, the Board adopted new assumptions based on the 2015 Experience Study. The changes from the prior assumption set are as follows:

#### **Economic Assumptions**

- 1. Reduce the inflation assumption from 3.00% to 2.50%.
- 2. Increase the real rate of return assumption from 4.50% to 5.00%, resulting in no overall change to the nominal return assumption of 7.50%.
- ${\it 3.} \quad {\it Add an explicit assumption for administrative expenses in the contribution determination.}$
- 4. Increase the productivity component of the salary scale assumption from 1.00% to 1.50%. Combining with the inflation rate of 2.50% creates ultimate salary scale assumption of 4.00%, which is unchanged from the prior assumption.
- 5. Slightly modify the service-based promotional/longevity component of the salary scale.

# **Mortality Assumptions**

- 6. Update the post-retirement mortality tables for non-disabled retirees to a table based on the RP-2014 generational mortality tables with blue collar adjustment. In addition, update the projected rate of improvement in longevity from Scale AA to the more recently published Scale BB.
- 7. Update the occupationally disabled post-retirement mortality assumption to be the same table as used for the healthy annuitants, except with a three year set-forward.
- 8. Update the totally disabled post-retirement mortality assumption to the RP 2014 generational mortality tables for disabled annuitants, except add an additional provision to apply a minimum 3% mortality probability to males and 2% mortality probability to females to reflect substantial impairment for this population.
- 9. Update the pre-retirement off-duty mortality tables to 55% of the RP-2014 mortality tables for active employees. Make no adjustment to the on-duty mortality rate of 0.00020.

#### Other Demographic Assumptions

- 10. Combine the termination assumption for police and fire.
- 11. Increase the rates of both occupational and total disability to reflect higher incidence of disability observed during the study period than expected.

# **Affiliated Local Plans**

Actuarial studies are completed every other year for the Affiliated Local Plans. The affiliated volunteer fire pension plans' actuarial studies are completed on the odd years and the old hire actuarial pension plans' actuarial studies are completed on the even years. Each employer participating in the system is financially responsible for its own liabilities. Accordingly, the aggregate numbers presented in this section are indicative only of the overall condition of the system and are not indicative of the status of any one employer.

#### ■ Schedule of Active Member Valuation Data

Valuation Date	Number of Participating Employers	Number of Paid and Volunteer Members	Annual Payroll of Paid Members	Annual Average Pay of Paid Members	% Increase in Average Pay
1/1/2015 and 1/1/2016	223	3,170	\$281,057	\$93,686	6.48%
1/1/2014 and 1/1/2015	223	3,174	615,871	87,982	0.00%
1/1/2013 and 1/1/2014	224	3,458	615,871	87,982	(9.43%)
1/1/2012 and 1/1/2013	224	3,461	874,274	87,427	0.00%
1/1/2011 and 1/1/2012	224	3,730	874,274	87,427	(5.33%)
1/1/2010 and 1/1/2011	226	3,758	3,416,792	89,916	0.67%
1/1/2009 and 1/1/2010	227	3,730	3,483,331	89,316	9.50%
1/1/2008 and 1/1/2009	230	3,763	6,199,241	81,569	0.00%
1/1/2007 and 1/1/2008	228	3,927	6,199,241	81,569	29.20%
1/1/2005 and 1/1/2006	221	4,949	75,130,892	63,135	6.71%

# ■ Gain | (Loss) on Actuarial Value of Assets

Note: Data to calculate a gain/loss analysis on all local plans was not available as of the 1/1/2015 and 1/1/2016 actuarial valuations.

# ■ Schedule of Retirees and Beneficiaries Added To and Removed From Benefit Payroll

	Added to	Payroll		Removed from Payroll Payroll %		% Increase	Average	
Year		Annual		Annual		Annual	in Annual	Annual
Ended	Number	Benefit	Number	Benefit	Number	Benefit	Benefit	Benefit
1/1/2015 and 1/1/2016	N/A	N/A	N/A	N/A	6,433	\$167,518,196	N/A	\$26,040
1/1/2014 and 1/1/2015	N/A	N/A	N/A	N/A	6,553	165,215,117	N/A	25,212
1/1/2013 and 1/1/2014	N/A	N/A	N/A	N/A	6,397	163,950,416	N/A	25,629
1/1/2012 and 1/1/2013	N/A	N/A	N/A	N/A	6,538	164,776,863	N/A	25,203
1/1/2011 and 1/1/2012	N/A	N/A	N/A	N/A	6,305	163,638,762	N/A	25,954
1/1/2010 and 1/1/2011	N/A	N/A	N/A	N/A	6,402	158,198,482	N/A	24,711
1/1/2009 and 1/1/2010	N/A	N/A	N/A	N/A	6,185	156,599,326	N/A	25,319
1/1/2008 and 1/1/2009	N/A	N/A	N/A	N/A	6,258	151,639,626	N/A	24,231
1/1/2007 and 1/1/2008	N/A	N/A	N/A	N/A	6,046	150,903,385	N/A	24,959
1/1/2005 and 1/1/2006	N/A	N/A	N/A	N/A	5,808	143,788,489	N/A	24,757

# ■ Solvency Test

		Aggree	gate Accrued L	iabilities For			
	<b>Valuation</b>	(1) Active Member	(2) Retirees and	(3) Active Members (Employer			
Valuation	Assets		Beneficiaries		Funde	ed Percer	ntages
Date	(000's)	(000's)	(000's)	(000's)	(1)	(2)	(3)
1/1/2015 and 1/1/2016	\$1,625,899	*	*	\$2,032,517	N/A	N/A	80.0%
1/1/2014 and 1/1/2015	1,637,698	*	*	1,972,326	N/A	N/A	83.0%
1/1/2013 and 1/1/2014	1,619,114	*	*	1,971,130	N/A	N/A	82.1%
1/1/2012 and 1/1/2013	1,516,275	*	*	2,044,975	N/A	N/A	74.1%
1/1/2011 and 1/1/2012	1,501,490	*	*	2,027,014	N/A	N/A	74.1%
1/1/2010 and 1/1/2011	1,626,454	*	*	2,038,237	N/A	N/A	79.8%
1/1/2009 and 1/1/2010	1,618,456	*	*	2,036,108	N/A	N/A	79.5%
1/1/2008 and 1/1/2009	1,855,494	*	*	2,081,304	N/A	N/A	89.2%
1/1/2007 and 1/1/2008	1,859,987	*	*	2,064,576	N/A	N/A	90.1%
1/1/2005 and 1/1/2006	1,818,994	*	*	2,246,573	N/A	N/A	81.0%

<sup>\*</sup> Included in Column 3.

# ■ Summary of Plan Provisions

#### **Members Included**

The Affiliated Local Plans are for the benefit of two distinct groups. The first of those are fire and police employees of affiliated employers hired prior to April 8, 1978 (Old Hires). The second of those are the volunteer firefighters of affiliated plans.

#### **Compensation Considered**

Compensation comprises base salary, including longevity, sick and vacation pay.

Volunteer members are not compensated. Their benefit is generally based on the total assets in the plan.

#### **Normal Retirement Date**

The member's Normal Retirement Date varies with each Old Hire plan. Several plans are based on the date a member has completed years of credited service, usually twenty to twenty five years. Most plans require the member to complete twenty to twenty five years of credited service and attain the age of 50 to 55.

Volunteer plans Normal Retirement Date is at age 50 with 20 years of service.

#### **Normal Retirement Benefit**

The annual Normal Retirement Benefit varies with each Old Hire plan. The benefit calculation ranges from 50-75% of salary. Several plans offer a lump sum actuarial equivalent benefit.

Volunteer plans offer a flat dollar benefit from \$0 - \$1,400 per month.

### **Deferred Vested Benefit**

Some Old Hire plans allow a member to leave their contributions in the fund and be eligible to receive a vested benefit based on salary times years of credited service at termination, usually with a maximum benefit of 50% of pay. The benefit is payable at normal retirement age, typically age 50 or 55. The minimum eligibility for this benefit is usually ten or twenty years of service at termination. Most plans do not offer deferred vested benefits.

Volunteer plans offer a flat dollar benefit that ranges from 50-100% of the normal retirement benefit depending on the years of credited service at termination. The benefit is usually payable at age 50.

#### **Severance Benefits**

In lieu of a future pension, some Old Hire plans offer their members upon termination an election to have accumulated contributions refunded in a lump sum. In addition to receiving accumulated contributions, the member may receive interest on the total accumulated contributions. Most plans do not offer severance benefits.

Volunteer plans are restricted by statute and cannot offer severance benefits.

#### **Cost-of-Living Adjustments for Benefits in Pay Status**

Several Old Hire plans offer a cost-of-living increase to their retirees and beneficiaries. Some only offer an ad-hoc cost-of-living increase. Others offer an escalation benefit based on the rank at which the member retired.

Volunteer plans are restricted by statute and cannot offer a cost-of-living increase.

#### **Contribution Rates**

The contribution rate varies for each Old Hire plan. Paid member rates range from 0-10%.

Volunteer members do not contribute to their plan.

#### **Pre-Retirement Death and Disability Benefits**

The paid Old Hire members are covered by the Statewide Death & Disability Plan.

Some volunteer plans offer a 50% benefit. All volunteer plans are required to pay at least a \$100 lump sum funeral benefit.

#### **Post-Retirement Death Benefits**

Most Old Hire plans offer a 50-100% benefit to the surviving spouse until death or remarriage. Some plans also offer actuarially equivalent post-retirement death benefits.

Some volunteer plans offer a 50% benefit to the surviving spouse until death or remarriage.

### **Deferred Retirement Option Plan (DROP)**

Several Old Hire plans allow a member to participate in the DROP after reaching eligibility for normal or delayed retirement. A member continues to work while participating in the DROP, but must terminate employment within a given time frame, generally between three to five years of entry into the DROP. The member's percentage of retirement benefit is frozen at the time of entry into the DROP. The monthly payments accumulate in the DROP account until the member terminates service, at which time the DROP and accumulated benefits can be paid as a lump sum or periodic payments, if desired. The member continues contributing the employee percentage of pay which is credited to the DROP.

Volunteer plans are restricted by statute and cannot offer a DROP.

#### **Changes in Plan Provisions**

The provisions of the local plans will vary from plan to plan, as will the periodic changes made to the plans. Local Old Hire plans are required to complete a supplemental actuarial study prior to adopting any benefit changes to the plan. Local volunteer fire plans are required to complete a supplemental actuarial study if improving their normal retirement benefit above \$100 per month. The following Summary of Actuarial Information and Additional Information is reflective of any changes in plan provisions and is the known Current Plan as of December 31, 2016. The data is adjusted to reflect the impact of such plan provisions as calculated within the required supplemental actuarial study.

#### **Changes in Actuarial Assumptions**

There were no changes to the actuarial assumptions since the prior valuations for the Volunteer Firefighter plans. The assumption set will change per the 2015 Experience Study effective with the January 1, 2017 valuations.

The global assumption set for the Old Hire plans administered by FPPA was changed in the 2015 Experience Study and effective with the January 1, 2016 valuations. Significant changes affecting the Old Hire plans valuation include:

- Reduce inflation from 3.0% to 2.5%,
- Increase real return from 4.5% to 5.0%.
- Update post-retirement mortality to a table based on RP-2014 generational mortality, with a blue collar adjustment for healthy retirees.

An explicit charge, equal to the average of the administrative expenses paid in the two prior fiscal years, is included in the calculated annual contribution.

	Sun						
Employer Plan	Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded (Surplus) Actuarial Accrued Liability	Funded Ratio	Active Covered Payroll	
Adams County (North Washington)							
FPD (Old Hire)	1/1/16	\$2,611,791	\$3,865,552	\$1,253,761	67.6%	\$0	
Adams County (North Washington)							
FPD (Volunteer)	1/1/15	\$163,756	\$54,033	\$(109,723)	303.1%	N/A	
Alamosa County FPD (Volunteer)	1/1/15	542,988	627,167	84,179	86.6%	N/A	
Alamosa Fire (Volunteer)	1/1/15	1,559,840	1,300,729	(259,111)	119.9%	N/A	
Allenspark FPD (Volunteer)	1/1/15	475,882	629,437	153,555	75.6%	N/A	
Aspen FPD (Volunteer)	1/1/15	1,881,147	3,568,838	1,687,691	52.7%	N/A	
Ault FPD (Volunteer)	1/1/15	580,664	1,225,507	644,843	47.4%	N/A	
Aurora Fire (Old Hire)	1/1/16	77,708,819	108,887,994	31,179,175	71.4%	\$0	
Aurora Police (Old Hire)	1/1/16	93,116,832	131,482,930	38,366,098	70.8%	111,083	
Bancroft FPD (Old Hire)	1/1/16	1,551,179	5,837,771	4,286,592	26.6%	0	
Basalt & Rural FPD (Volunteer)	1/1/15	1,784,458	2,064,229	279,771	86.4%	N/A	
Bennett FPD #7 (Volunteer)	1/1/15	888,098	758,367	(129,731)	117.1%	N/A	
Berthoud FPD (Volunteer)	1/1/15	560,016	710,635	150,619	78.8%	N/A	
Big Sandy FPD (Volunteer)	1/1/15	129,350	57,584	(71,766)	224.6%	N/A	
Big Thompson Canyon Fire (Volunteer)		371,371	566,235	194,864	65.6%	N/A	
Black Forest Fire Rescue (Volunteer)	1/1/15	1,197,052	883,853	(313,199)	135.4%	N/A	
Blanca Fire (Volunteer)	1/1/15	152,333	151,974	359)	100.2%	N/A	
Boone Fire (Volunteer)	1/1/15	37,786	37,699	(87)	100.2%	N/A	
Boulder Mountain FPD (Volunteer)	1/1/15	843,785	946,183	102,398	89.2%	N/A	
Boulder Rural FPD (Volunteer)	1/1/15	618,023	1,516,756	898,733	40.7%	N/A	
Bow Mar Police (Old Hire)	1/1/16	52,457	29,661	(22,796)	176.9%	0	
Brighton VFD (Volunteer)	1/1/15	3,739,792	3,953,389	213,597	94.6%	N/A	
Brush Combined Fire (Volunteer)	1/1/15	812,729	1,318,691	505,962	61.6%	N/A	
Buena Vista Fire (Volunteer)	1/1/15	420,572	504,992	84,420	83.3%	N/A	
Calhan FPD (Volunteer)	1/1/15	138,009	118,858	(19,151)	116.1%	N/A	
Cañon City Area FPD (Old Hire)	1/1/16	2,995,542	5,316,905	2,321,363	56.3%	0	
Cañon City Area FPD (Volunteer)	1/1/15	252,077	404,186	152,109	62.4%	N/A	
Carbondale & Rural FPD (Volunteer)	1/1/15	2,198,369	2,533,664	335,295	86.8%	N/A	
Cascade FPD (Volunteer)	1/1/15	307,629	407,493	99,864	75.5%	N/A	
Castle Rock Fire (Volunteer)	1/1/15	996,677	1,177,337	180,660	84.7%	N/A	
Cedaredge Police (Old Hire)	1/1/16	88,706	42,179	(46,527)	210.3%	0	
Central City VFD (Volunteer)	1/1/15	527,637	562,910	35,273	93.7%	N/A	
Central Orchard Mesa FPD (Volunteer)	1/1/15	85,724	279,029	193,305	30.7%	N/A	
Cherry Hills FPD (Old Hire)	1/1/16	2,399,223	4,487,878	2,088,655	53.5%	0	
Cheyenne County FPD #1 (Volunteer)	1/1/15	424,763	509,771	85,008	83.3%	N/A	
Clear Creek Fire Authority (Volunteer)	1/1/15	1,941,840	1,823,153	(118,687)	106.5%	N/A	
Clifton FPD (Volunteer)	1/1/15	1,790,539	1,696,291	(94,248)	105.6%	N/A	
Coal Creek Canyon FPD (Volunteer)	1/1/15	949,374	1,394,123	444,749	68.1%	N/A	
Cour Cicck Carryon 11 D (Volunteel)	1/1/13	777,317	1,577,125	7-T7,1 T J	00.170	1 N/ /\	

<sup>\*</sup>Eligible at age 50 with 20 years of service

			Ac	lditional I	nformat	ion		
Calculated Annual Contribution	Amortization Period (Years)	Number of Active Members	Number of Active Members in DROP	Number of Annuitants	Number of Inactive Members	Average Age of Active Members (Years)	Average Service of Active Members (Years)	Volunteer Plan Normal Retirement Benefit (Monthly)*
\$180,163	10	0	0	10	0	N/A	N/A	N/A
15,561	12	0	0	11	0	N/A	N/A	\$100
12,900	20	24	0	18	1	39.8	14.5	200
(11,936)	20	28	0	28	3	33.9	7.1	375
25,316	20	22	0	13	3	50.6	10.0	250
179,924	20	19	0	48	3	44.0	9.8	600
64,520	20	17	0	20	0	40.9	6.5	500
3,184,594	20	0	2	132	0	N/A	N/A	N/A
3,906,280	20	1	0	146	0	61.0	38.9	N/A
706,794	8	0	0	14	0	N/A	N/A	N/A
38,366	20	11	0	37	2	47.4	8.5	575
(6,816)	20	18	0	22	7	34.4	4.7	275
13,114	20	1	0	22	1	40.0	10.0	400
(7,250)	20	18	0	10	0	36.8	5.7	\$50
27,698	20	13	0	10	3	39.8	3.9	400
(26,405)	20	6	0	20	1	42.7	3.0	500
(106)	20	2	0	4	0	34.5	8.0	350
257	20	11	0	6	0	38.2	11.2	50
27,056	20	40	0	33	0	51.0	9.1	200
91,738	20	8	0	29	4	42.3	7.9	500
(4,377)	6	0	0	1	0	N/A	N/A	N/A
14,218	20	0	0	39	6	N/A	N/A	950
59,047	20	30	0	35	4	37.9	8.0	260
11,734	20	11	0	12	6	41.7	5.1	250
1,835	20	17	0	2	5	37.0	5.6	150
226,589	20	0	0	11	0	N/A	N/A	N/A
16,870	20	15	0	12	1	38.7	7.9	200
112,757	20	62	0	42	7	39.7	3.3	500
10,543	20	10	0	16	0	46.8	7.7	200
18,141	20	2	0	19	1	47.5	14.0	675
(9,622)	6	0	0	1	0	N/A	N/A	N/A
11,022	20	12	0	6	2	34.0	6.4	500
19,755	20	12	0	10	0	43.3	5.3	270
214,110	18	0	0	11	0	N/A	N/A	N/A
10,695	20	32	0	16	1	39.3	7.8	200
(12,500)	20	13	0	36	6	43.1	11.4	450
14,731	20	25	0	26	5	31.5	3.0	600
60,120	20	35	0	33	5	45.5	7.2	300

				Summary	of Actuarial	Information	
Employer Plan	Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded (Surplus) Actuarial Accrued Liability	Funded Ratio	Active Covered Payroll	
Colorado River (Burning Mountains)							
FPD (Volunteer)	1/1/15	\$2,130,281	\$3,162,720	\$1,032,439	67.4%	N/A	
Colorado River (Rifle) FPD (Volunteer)	1/1/15	4,638,179	3,242,569	(1,395,610)	143.0%	N/A	
Colorado Springs Fire (Old Hire)	1/1/16	76,765,326	98,527,662	21,762,336	77.9%	\$0	
Colorado Springs Police (Old Hire)	1/1/16	64,742,685	82,286,576	17,543,891	78.7%	0	
Cortez Police (Old Hire)	1/1/16	290,784	173,129	(117,655)	168.0%	0	
Crested Butte FPD (Volunteer)	1/1/15	2,854,718	2,997,750	143,032	95.2%	N/A	
Cripple Creek Fire (Volunteer)	1/1/15	518,601	179,898	(338,703)	288.3%	N/A	
Crowley VFD (Volunteer)	1/1/15	38,807	10,817	(27,990)	358.8%	N/A	
Crystal Lakes FPD (Volunteer)	1/1/15	248,733	148,419	(100,314)	167.6%	N/A	
Del Norte Police (Old Hire)	1/1/16	1,349	12,915	11,566	10.4%	0	
Denver Fire (Old Hire)	1/1/16	346,003,532	497,663,581	151,660,049	69.5%	89,857	
Denver Police (Old Hire)	1/1/16	630,910,491	702,470,993	71,560,502	89.8%	0	
Divide VFD (Volunteer)	1/1/15	432,346	368,904	(63,442)	117.2%	N/A	
Donald Wescott FPD (Volunteer)	1/1/15	949,145	764,495	(184,650)	124.2%	N/A	
Dove Creek FPD (Volunteer)	1/1/15	334,995	1,216,596	881,601	27.5%	N/A	
Durango Fire (Old Hire)	1/1/16	1,139,493	2,236,959	1,097,466	50.9%	0	
Durango Police (Old Hire)	1/1/16	1,706,299	2,883,012	1,176,713	59.2%	0	
Durango FPD (Volunteer)	1/1/15	5,386,355	6,025,122	638,767	89.4%	N/A	
Eads Fire (Volunteer)	1/1/15	143,242	123,001	(20,241)	116.5%	N/A	
East Grand FPD #4 (Volunteer)	1/1/15	1,950,286	2,319,183	368,897	84.1%	N/A	
Eaton FPD (Volunteer)	1/1/15	1,184,883	1,637,803	452,920	72.3%	N/A	
Eckley Fire (Volunteer)	1/1/15	24,975	49,047	24,072	50.9%	N/A	
Elbert FPD & Rescue (Volunteer)	1/1/15	191,663	84,613	(107,050)	226.5%	N/A	
Elizabeth FPD (Volunteer)	1/1/15	1,146,201	1,825,335	679,134	62.8%	N/A	
Elk Creek FPD (Volunteer)	1/1/15	2,683,617	2,157,203	(526,414)	124.4%	N/A	
Englewood Fire (Old Hire)	1/1/16	6,522,598	9,032,530	2,509,932	72.2%	0	
Englewood Police (Old Hire)	1/1/16	4,589,625	8,841,403	4,251,778	51.9%	0	
Englewood Fire (Volunteer)	1/1/15	77,684	112,613	34,929	69.0%	N/A	
Evans FPD (Volunteer)	1/1/15	653,909	1,546,617	892,708	42.3%	N/A	
Evergreen FPD (Volunteer)	1/1/15	4,329,295	5,640,133	1,310,838	76.8%	N/A	
Falcon FPD (Volunteer)	1/1/15	644,345	949,928	305,583	67.8%	N/A	
Federal Heights Fire (Volunteer)	1/1/15	2,666,468	257,589	(2,408,879)	1035.2%	N/A	
Fisher's Peak FPD (Volunteer)	1/1/15	162,888	83,123	(79,765)	196.0%	N/A	
Florence FPD (Volunteer)	1/1/15	1,594,835	1,545,378	(49,457)	103.2%	N/A	
Foothills Fire & Rescue (Volunteer)	1/1/15	1,460,673	1,887,383	426,710	77.4%	N/A	
Fort Lewis Mesa FPD (Volunteer)	1/1/15	352,720	445,798	93,078	79.1%	N/A	
Fort Morgan Police (Old Hire)	1/1/16	486,398	1,319,160	832,762	36.9%	0	
Fort Morgan Fire (Volunteer)	1/1/15	1,122,145	2,403,673	1,281,528	46.7%	N/A	
Fort Morgan Rural FPD (Volunteer)	1/1/15	761,208	1,193,828	432,620	63.8%	N/A	

<sup>\*</sup>Eligible at age 50 with 20 years of service

			Ac	lditional I	nformati	ion		
Calculated Annual Contribution	Amortization Period (Years)	Number of Active Members	Number of Active Members in DROP	Number of Annuitants	Number of Inactive Members	Average Age of Active Members (Years)	Average Service of Active Members (Years)	Volunteer Plan Normal Retirement Benefit (Monthly)*
\$92,694	20	6	0	35	3	36.3	9.3	\$875.50
 (161,049)	20	5	0	39	5	46.2	9.2	875.50
 2,286,697	19	0	0	182	0	N/A	N/A	N/A
 1,833,691	19	0	0	153	0	N/A	N/A	N/A
 (12,718)	14	0	0	1	0	N/A	N/A	N/A
 43,012	20	32	0	22	8	40.9	9.4	680
 (35,285)	20	0	0	6	1	N/A	N/A	300
 (2,779)	20	13	0	0	0	48.5	15.8	10
 (574)	20	12	0	3	0	57.8	5.3	300
 6,472	3	0	0	1	0	N/A	N/A	N/A
 16,355,396	17	1	2	799	0	61.0	37.9	N/A
 7,987,837	20	0	1	1051	0	N/A	N/A	N/A
 5,193	20	28	0	6	2	41.4	4.4	299
 (14,032)	20	8	0	14	2	29.9	4.8	400
 90,014	20	19	0	30	2	42.6	10.3	300
 126,278	15	0	0	9	0	N/A	N/A	N/A
 122,870	18	0	0	8	0	N/A	N/A	N/A
 174,693	20	67	0	66	11	39.1	3.4	800
 (612)	20	27	0	5	1	31.4	9.4	100
 67,147	20	30	0	30	6	37.5	5.8	600
 77,555	20	34	0	22	2	28.5	2.1	900
 2,509	20	15	0	11	0	40.9	13.7	26
 (10,374)	20	13	0	5	1	43.0	14.9	75
 63,031	20	0	0	26	1	N/A	N/A	750
 (9,275)	20	47	0	57	4	35.3	4.3	400
 283,390	16	0	1	39	0	N/A	N/A	N/A
 445,045	17	0	1	36	0	N/A	N/A	N/A N/A
 5,975	9	0	0	6	0	N/A	N/A	450
 88,862	20	6	0	21	6	38.5	7.2	675
 224,405	20	80	0	65	8	42.0	5.8	600
 28,693	20	0	0	25	2	42.0 N/A	N/A	500
 (239,390)	20	15	0	25 4	3	31.1	3.9	450
 	20	21	0		3 4	43.2	3.9 7.4	100
 (5,478)	20		0	0 43	0	38.0	7.4	300
 (6,464)		50 27						
 65,458	20	37	0	46	8	42.5	4.5	400
 17,622	20	13	0	12	3	45.5	4.5	300
 99,655	14	0	0	3	0	N/A	N/A	N/A
 128,344	20	28	0	38	5	35.8	7.4	425
 40,245	20	28	0	37	3	35.8	7.4	225

				Summary o	of Actuarial	Information	
Employer Plan	Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded (Surplus) Actuarial Accrued Liability	Funded Ratio	Active Covered Payroll	
Franktown FPD (Volunteer)	1/1/15	\$2,832,342	\$857,365	\$(1,974,977)	330.4%	N/A	
Frederick Firestone FPD (Volunteer)	1/1/15	144,444	251,228	106,784	57.5%	N/A	
Galeton FPD (Volunteer)	1/1/15	970,367	877,413	(92,954)	110.6%	N/A	
Genesee FPD (Volunteer)	1/1/15	1,400,105	1,681,189	281,084	83.3%	N/A	
Glacier View FPD (Volunteer)	1/1/15	260,230	194,130	(66,100)	134.0%	N/A	
Glendale Fire (Volunteer)	1/1/15	221,245	107,777	(113,468)	205.3%	N/A	
Glenwood Springs Fire (Volunteer)	1/1/15	719,573	1,058,399	338,826	68.0%	N/A	
Golden Fire (Volunteer)	1/1/15	2,859,969	4,792,151	1,932,182	59.7%	N/A	
Golden Gate FPD (Volunteer)	1/1/15	304,615	267,932	(36,683)	113.7%	N/A	
Grand FPD #1 (Volunteer)	1/1/15	1,321,264	2,415,216	1,093,952	54.7%	N/A	
Grand Junction Fire (Old Hire)	1/1/16	9,039,230	13,038,163	3,998,933	69.3%	\$0	
Grand Junction Police (Old Hire)	1/1/16	4,127,239	3,560,821	(566,418)	115.9%	0	
Grand Lake FPD (Volunteer)	1/1/15	1,644,640	1,181,105	(463,535)	139.2%	N/A	
Grand Valley FPD (Volunteer)	1/1/15	3,518,847	1,834,287	(1,684,560)	191.8%	N/A	
Greeley Police (Old Hire)	1/1/16	764,527	1,105,102	340,575	69.2%	0	
Greeley (Union Colony) Fire (Old Hire)	1/1/16	9,477,428	10,407,221	929,793	91.1%	0	
Green Mountain Falls-	4 /4 /4 5	255 5 42	450.004	204.454	55 co/		
Chipita Park FPD (Volunteer)	1/1/15	255,543	459,994	204,451	55.6%	N/A	
Gypsum FPD (Volunteer)	1/1/15	602,627	831,654	229,027	72.5%	N/A	
Hartsel FPD (Volunteer)	1/1/15	644,330	1,087,282	442,952	59.3%	N/A	
Haxtun Fire (Volunteer) Haxtun Police (Old Hire)	1/1/15	169,358	165,654	(3,704)	102.2% 55.9%	N/A	
Hillrose Rural FPD (Volunteer)	1/1/16	149,681	267,820	118,139	126.5%	0	
••••••	1/1/15 1/1/15	235,606	186,191	(49,415)	120.5%	N/A N/A	
Holyoke Fire (Volunteer) Holyoke FPD (Volunteer)	1/1/15	204,158 212,531	195,285 375,126	(8,873) 162,595	56.7%	N/A N/A	
Hot Sulphur Springs/Parshall	1/1/13	212,331	3/3,120	102,393	30.7%	IN/A	
FPD (Volunteer)	1/1/15	235,751	194,230	(41,521)	121.4%	N/A	
Hygiene FPD (Volunteer)	1/1/15	1,126,412	832,201	(294,211)	135.4%	N/A	
Indian Hills FPD (Volunteer)	1/1/15	322,521	512,921	190,400	62.9%	N/A	
Inter-Canyon FPD (Volunteer)	1/1/15	1,411,980	2,008,729	596,749	70.3%	N/A	
Jackson 105 FPD (Volunteer)	1/1/15	283,111	425,415	142,304	66.5%	N/A	
Jefferson-Como FPD (Volunteer)	1/1/15	1,066,339	496,706	(569,633)	214.7%	N/A	
Kiowa FPD (Volunteer)	1/1/15	732,577	456,568	(276,009)	160.5%	N/A	
Kremmling FPD (Volunteer)	1/1/15	446,362	721,728	275,366	61.8%	N/A	
La Junta Fire (Old Hire)	1/1/16	830,213	1,421,660	591,447	58.4%	0	
La Junta Police (Old Hire)	1/1/16	731,163	1,155,620	424,457	63.3%	0	
La Junta Fire (Volunteer)	1/1/15	538,889	236,262	(302,627)	228.1%	N/A	
La Salle Police (Old Hire)	1/1/16	1,192,388	833,033	(359,355)	143.1%	80,117	
La Salle FPD (Volunteer)	1/1/15	2,718,149	3,748,225	1,030,076	72.5%	N/A	
Lafayette Fire (Volunteer)	1/1/15	1,328,106	2,381,620	1,053,514	55.8%	N/A	

<sup>\*</sup>Eligible at age 50 with 20 years of service

	Additional Information									
Calculated Annual Contribution	Amortization Period (Years)	Number of Active Members	Number of Active Members in DROP	Number of Annuitants	Number of Inactive Members	Average Age of Active Members (Years)	Average Service of Active Members (Years)	Volunteer Plan Normal Retirement Benefit (Monthly)*		
\$(204,872)	20	10	0	24	0	46.0	12.5	\$350		
10,395	16	0	0	14	0	N/A	N/A	200		
(25,377)	20	12	0	12	1	40.7	5.9	500		
63,546	20	36	0	38	1	44.9	5.1	450		
(311)	20	13	0	6	2	41.8	3.0	250		
(11,821)	20	0	0	13	0	N/A	N/A	100		
33,105	20	2	0	20	3	60.0	5.5	550		
225,331	20	41	0	61	6	35.1	8.4	615		
(4,673)	20	2	0	10	0	27.5	6.0	300		
125,139	20	31	0	29	2	33.7	3.4	700		
424,262	18	0	0	34	0	N/A	N/A	N/A		
(71,061)	12	0	0	14	0	N/A	N/A	N/A		
(39,758)	20	5	0	12	2	35.6	2.6	900		
(163,264)	20	10	0	21	0	34.1	6.9	857.20		
44,789	11	0	0	7	0	N/A	N/A	N/A		
126,660	16	0	0	29	0	N/A	N/A	N/A		
125,000										
24,194	20	16	0	9	0	43.2	7.3	325		
27,680	20	10	0	12	4	35.4	5.7	500		
58,320	20	12	0	18	4	46.3	5.1	650		
60	20	29	0	22	0	37.7	9.7	50		
13,404	20	0	0	1	0	N/A	N/A	N/A		
(5,170)	20	14	0	11	3	42.3	7.9	100		
(653)	20	26	0	24	2	38.2	6.4	55		
17,224	20	39	0	44	2	40.2	8.6	60		
(624)	20	14	0	4	0	39.2	6.1	250		
(23,924)	20	25	0	22	2	39.6	5.4	300		
22,655	20	10	0	17	0	46.1	7.5	250		
72,785	20	38	0	22	4	44.6	8.1	432		
14,584	20	6	0	16	4	43.8	5.5	200		
(37,514)	20	12	0	9	0	42.1	1.4	1,000		
(26,094)	20	19	0	13	4	23.9	1.5	300		
38,134	20	15	0	12	3	38.3	4.5	450		
60,388	19	0	0	4	0	N/A	N/A	N/A		
55,128	13	0	0	3	0	N/A	N/A	N/A		
(28,118)	20	15	0	4	2	38.6	11.7	200		
(34,192)	20	1	0	0	0	64.0	43.0	N/A		
90,939	20	15	0	30	5	27.3	2.2	1,000		
93,525	20	0	0	36	8	N/A	N/A	600		
73,323	.120	U	U	30	U	IN/ /\	1 N / / \	300		

				Summary o	of Actuarial	Information	
Employer Plan	Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded (Surplus) Actuarial Accrued Liability	Funded Ratio	Active Covered Payroll	
Lake City Area FPD (Volunteer)	1/1/15	\$84,599	\$35,005	\$(49,594)	241.7%	N/A	
Lake Dillon FPD (Volunteer)	1/1/15	3,930,601	4,966,862	1,036,261	79.1%	N/A	
Lake George FPD (Volunteer)	1/1/15	311,272	375,114	63,842	83.0%	N/A	
Lakewood FPD (Old Hire)	1/1/16	14,000,265	14,910,117	909,852	93.9%	\$0	
Lamar Fire (Old Hire)	1/1/16	913,625	287,112	(626,513)	318.2%	0	•••••
Lamar Fire (Volunteer)	1/1/15	762,146	204,265	(557,881)	373.1%	N/A	•••••
Larkspur FPD (Volunteer)	1/1/15	1,474,070	2,085,640	611,570	70.7%	N/A	•••••
Las Animas Police (Old Hire)	1/1/16	286,882	571,675	284,793	50.2%	0	
Leadville Fire (Old Hire)	1/1/16	155,044	270,577	115,533	57.3%	0	
Lefthand FPD (Volunteer)	1/1/15	1,213,183	802,406	(410,777)	151.2%	N/A	
Lewis-Arriola FPD (Volunteer)	1/1/15	1,265,849	1,707,342	441,493	74.1%	N/A	
Limon Area FPD (Volunteer)	1/1/15	576,625	258,828	(317,797)	222.8%	N/A	
Livermore FPD (Volunteer)	1/1/15	177,987	162,730	(15,257)	109.4%	N/A	
Log Hill Mesa FPD (Volunteer)	1/1/15	292,578	323,981	31,403	90.3%	N/A	
Loveland & Rural Consolidated							
VFD (Volunteer)	1/1/15	2,835,847	3,906,582	1,070,735	72.6%	N/A	
Loveland Fire (Old Hire)	1/1/16	136,274	99,179	(37,095)	137.4%	0	
Lower Valley FPD (Volunteer)	1/1/15	1,531,482	1,214,678	(316,804)	126.1%	N/A	
Lyons FPD (Volunteer)	1/1/15	1,045,592	858,695	(186,897)	121.8%	N/A	
Mancos FPD (Volunteer)	1/1/15	900,333	269,440	(630,893)	334.1%	N/A	
Manitou Springs Fire (Old Hire)	1/1/16	343,870	503,940	160,070	68.2%	0	
Manitou Springs VFD (Volunteer)	1/1/15	369,512	587,337	217,825	62.9%	N/A	
Manzanola Rural FPD (Volunteer)	1/1/15	174,093	96,067	(78,026)	181.2%	N/A	
Milliken FPD (Volunteer)	1/1/15	600,057	956,687	356,630	62.7%	N/A	
Montrose FPD (Old Hire)	1/1/16	118,769	294,135	175,366	40.4%	0	
Montrose FPD (Volunteer)	1/1/15	601,111	1,079,216	478,105	55.7%	N/A	
Mountain View FPD (Old Hire)	1/1/16	345,218	346,062	844	99.8%	0	
Mountain View FPD (Volunteer)	1/1/15	2,387,765	2,592,758	204,993	92.1%	N/A	
Nederland FPD (Volunteer)	1/1/15	633,911	724,744	90,833	87.5%	N/A	
New Raymer/Stoneham FPD (Voluntee	r) 1/1/15	303,291	273,521	(29,770)	110.9%	N/A	
North Fork FPD (Volunteer)	1/1/15	251,858	356,668	104,810	70.6%	N/A	
North Routt County Fire (Volunteer)	1/1/15	240,090	352,701	112,611	68.1%	N/A	
Northeast Teller County FPD (Voluntee	r) 1/1/15	572,442	744,473	172,031	76.9%	N/A	
North-West FPD (Volunteer)	1/1/15	325,610	639,469	313,859	50.9%	N/A	
Northwest Conejos County							
FPD (Volunteer)	1/1/15	482,422	622,003	139,581	77.6%	N/A	
Norwood FPD (Volunteer)	1/1/15	393,230	369,824	(23,406)	106.3%	N/A	
Nucla-Naturita FPD (Volunteer)	1/1/15	575,058	480,111	(94,947)	119.8%	N/A	
Nunn FPD (Volunteer)	1/1/15	841,602	381,383	(460,219)	220.7%	N/A	
Oak Creek FPD (Volunteer)	1/1/15	362,103	745,185	383,082	48.6%	N/A	

<sup>\*</sup>Eligible at age 50 with 20 years of service

	Additional Information										
Calculated Annual Contribution	Amortization Period (Years)	Number of Active Members	Number of Active Members in DROP	Number of Annuitants	Number of Inactive Members	Average Age of Active Members (Years)	Average Service of Active Members (Years)	Volunteer Plan Normal Retirement Benefit (Monthly)*			
\$(3,583)	20	11	0	1	1	42.7	4.0	\$100			
91,916	20	0	0	 48	5	N/A	N/A	1,000			
18,096	20	14	0	6	1	58.4	5.5	450			
142,931	14	0	0	40	0	N/A	N/A	N/A			
(61,783)	20	0	0	1	0	N/A	N/A	N/A			
(54,620)	20	31	0	4	0	34.3	5.7	250			
84,199	20	17	0	29	3	41.4	4.9	695			
33,962	15	0	0	3	0	N/A	N/A	N/A			
15,624	17	0	0	3	0	N/A	N/A	N/A			
(24,015)	20	29	0	19	1	44.1	4.3	400			
54,009	20	25	0	27	6	35.8	8.8	425			
(32,885)	20	11	0	13	1	39.6	5.4	175			
2,008	20	13	0	6	0	52.8	6.5	200			
10,699	20	27	0	19	0	52.6	5.9	200			
10,033	20					32.0	3.7	200			
101.670	20	8	0	60	4	27.9	1.3	750			
(14,247)	4	0	0	1	0	N/A	N/A	N/A			
(23,372)	20	21	0	 15	8	34.6	3.6	600			
531	20	34	0	14	9	35.3	3.8	350			
(65,404)	20	16	0	5	0	37.1	7.3	200			
16,956	20	0	0	1	0	N/A	N/A	N/A			
26,859	20	37	0	21	2	35.6	3.1	225			
(7,833)	20	14	0	5	0	44.0	13.3	60			
34,954	20	3	0	19	2	35.7	2.7	550			
23,068	14	0	0	2	0	N/A	N/A	N/A			
50,696	20	4	0	14	2	44.5	12.5	725			
3,295	4	0	0	1	0	N/A	N/A	N/A			
24,081	20	5	0	68	13	40.4	3.6	500			
22,325	20	15	0	9	3	47.9	9.0	400			
(17,090)	20	21	0	6	3	33.9	6.3	200			
13,575	20	24	0	10	1	46.4	9.6	160			
16,730	20	12	0	7	2	48.5	6.5	300			
15,948	20	2	0	22	4	44.5	8.5	400			
36,278	20	7	0	13	0	50.3	8.1	475			
30,210				15		30.3	J.1	17.5			
17,017	20	30	0	38	9	40.9	12.7	100			
(287)	20	26	0	9	1	48.5	9.5	175			
(8,482)	20	17	0	18	2	39.5	7.4	200			
(44,670)	20	14	0	4	0	47.4	13.6	325			
		4	0								
37,699	20	4	U	16	5	44.0	9.8	400			

	Summary of Actuarial Informat				Information		
Employer Plan	Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded (Surplus) Actuarial Accrued Liability	Funded Ratio	Active Covered Payroll	
Olathe FPD (Volunteer)	1/1/15	\$642,310	\$1,040,547	\$398,237	61.7%	N/A	
Olney Springs Fire (Volunteer)	1/1/15	174,421	112,775	(61,646)	154.7%	N/A	
Ordway Fire (Volunteer)	1/1/15	213,765	139,903	(73,862)	152.8%	N/A	
Ouray VFD (Volunteer)	1/1/15	460,007	287,188	(172,819)	160.2%	N/A	
Palisade VFD (Volunteer)	1/1/15	911,270	418,045	(493,225)	218.0%	N/A	
Palmer Lake Fire (Volunteer)	1/1/15	22,050	98,709	76,659	22.3%	N/A	
Parker FPD (Volunteer)	1/1/15	387,642	682,781	295,139	56.8%	N/A	
Pawnee FPD (Volunteer)	1/1/15	159,510	36,412	(123,098)	438.1%	N/A	
Peetz FPD (Volunteer)	1/1/15	241,214	49	(241,165)	492273.5%	N/A	
Peyton FPD (Volunteer)	1/1/15	44,861	25,384	(19,477)	176.7%	N/A	
Pinewood Springs VFD (Volunteer)	1/1/15	169,939	185,718	15,779	91.5%	N/A	
Plateau Valley FPD (Volunteer)	1/1/15	1,516,439	1,454,197	(62,242)	104.3%	N/A	
Platte Canyon FPD (Volunteer)	1/1/15	1,046,195	1,233,779	187,584	84.8%	N/A	
Platte Valley FPD (Volunteer)	1/1/15	2,255,904	1,566,960	(688,944)	144.0%	N/A	
Platteville/Gilcrest FPD (Volunteer)	1/1/15	4,318,050	4,863,762	545,712	88.8%	N/A	
Pleasant View Metro							
Fire District (Volunteer)	1/1/15	1,701,546	1,081,529	(620,017)	157.3%	N/A	
Poudre Canyon FPD (Volunteer)	1/1/15	84,271	62,099	(22,172)	135.7%	N/A	
Poudre Fire Authority (Volunteer)	1/1/15	106,889	131,700	24,811	81.2%	N/A	
Pueblo Fire (Old Hire)	1/1/16	36,406,436	48,844,137	12,437,701	74.5%	\$0	
Pueblo Police (Old Hire)	1/1/16	51,614,509	65,398,075	13,783,566	78.9%	0	
Pueblo Rural FPD (Old Hire)	1/1/16	1,930,682	2,361,512	430,830	81.8%	0	
Rangely Rural FPD (Volunteer)	1/1/15	585,814	671,545	85,731	87.2%	N/A	
Rattlesnake FPD (Volunteer)	1/1/15	976,764	1,061,908	85,144	92.0%	N/A	
Red Feather Lakes FPD (Volunteer)	1/1/15	296,527	418,090	121,563	70.9%	N/A	
Red, White & Blue FPD (Old Hire)	1/1/16	255,447	619,972	364,525	41.2%	0	
Red, White & Blue FPD (Volunteer)	1/1/15	1,307,315	995,003	(312,312)	131.4%	N/A	
Ridgway FPD (Volunteer)	1/1/15	620,310	359,747	(260,563)	172.4%	N/A	
Rio Blanco FPD (Volunteer)	1/1/15	3,735,832	3,519,509	(216,323)	106.1%	N/A	
Rocky Ford Police (Old Hire)	1/1/16	234,616	450,139	215,523	52.1%	0	
Rocky Ford Fire (Volunteer)	1/1/15	81,260	24,565	(56,695)	330.8%	N/A	
Rocky Mountain VFD (Volunteer)	1/1/15	396,596	513,034	116,438	77.3%	N/A	
Sable-Altura FPD (Volunteer)	1/1/15	562,532	677,561	115,029	83.0%	N/A	
Salida Fire (Old Hire)	1/1/16	129,627	236,171	106,544	54.9%	0	
Salida Police (Old Hire)	1/1/16	571,721	1,300,563	728,842	44.0%	0	
Sheridan Fire (Volunteer)	1/1/15	384,389	900,936	516,547	42.7%	N/A	
Solveton San Juan FRA (Volunteer)	1/1/15	257,449	295,684	38,235	87.1%	N/A	
South Adams County FPD (Volunteer)	1/1/16	355,702	807,034	451,332	44.1%	0	
South Adams County FPD (Volunteer)	1/1/15	5,898,313	8,316,020	2,417,707	70.9%	N/A	
South Arkansas FPD (Volunteer)	1/1/15	173,061	158,574	(14,487)	109.1%	N/A	

<sup>\*</sup>Eligible at age 50 with 20 years of service

		Additional Information									
Calculated Annual Contribution	Amortization Period (Years)	Number of Active Members	Number of Active Members in DROP	Number of Annuitants	Number of Inactive Members	Average Age of Active Members (Years)	Average Service of Active Members (Years)	Volunteer Plan Normal Retirement Benefit (Monthly)*			
\$51,791	20	19	0	19	2	34.6	3.3	\$500			
 (4,474)	20	7	0	5	2	44.0	8.7	150			
 (6,827)	20	13	0	13	0	44.7	11.0	75			
 (18,682)	20	30	0	22	0	45.2	10.8	90			
 (36,515)	20	32	0	13	4	33.0	3.2	300			
 8,925	20	13	0	10	0	34.4	5.9	100			
 28,670	19	0	0	23	0	N/A	N/A	420			
 (12,817)	20	8	0	23	0	45.3	14.1	50			
 	20	19	0		0	37.1	6.1	0			
 (28,944)				0							
 (1,129)	20	13	0	1	0	38.3	5.6	100			
 8,898	20	18	0	3	0	55.3	6.3	225			
 22,374	20	24	0	10	1	43.8	9.4	700			
 24,861	20	18	0	18	2	46.7	12.6	375			
 (34,298)	20	35	0	21	4	28.7	2.5	750			
 15,264	20	6	0	45	8	34.2	5.7	1,000			
 13,685	20	36	0	3	2	28.0	3.4	1,400			
 5,123	20	46	0	0	0	49.1	3.2	100			
2,539	20	1	0	5	0	61.0	28.0	300			
1,565,925	13	0	1	132	0	N/A	N/A	N/A			
1,571,421	16	0	0	117	0	N/A	N/A	N/A			
 51,207	16	0	0	8	0	N/A	N/A	N/A			
25,006	20	33	0	12	0	31.2	4.7	350			
 35,311	20	41	0	22	0	36.9	5.6	375			
 15,176	20	6	0	10	1	61.0	4.7	400			
 48,265	12	0	0	2	0	N/A	N/A	N/A			
 (32,536)	20	0	0	29	5	N/A	N/A	400			
 (22,894)	20	15	0	10	1	42.5	6.7	300			
 (14,792)	20	31	0	34	1	40.8	5.9	900			
 29,260	12	0	0	2	0	N/A	N/A	N/A			
 (5,805)	20	24	0	7	1	36.0	6.0	25			
 12,659	20	1	0	22	3	64.0	25.0	200			
 50,955	20	37	0		4	32.8	23.0	550			
				8							
 14,074	15	0	0	3	0	N/A	N/A	N/A			
 75,808	18	0	0	6	0	N/A	N/A	N/A			
 51,922	20	0	0	20	1	N/A	N/A	579			
 7,421	20	27	0	11	4	52.8	12.8	100			
 48,096	20	0	0	2	0	N/A	N/A	N/A			
 267,024	20	49	0	63	14	33.4	4.4	1,000			
(1,509)	20	0	0	6	0	N/A	N/A	225			

	Summary of Actuarial Information						
Employer Plan	Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded (Surplus) Actuarial Accrued Liability	Funded Ratio	Active Covered Payroll	
South Conejos FPD (Volunteer)	1/1/15	\$232,896	\$244,044	\$11,148	95.4%	N/A	
South Metro Fire Rescue (Volunteer)	1/1/15	345,338	\$328,345	(16,993)	105.2%	N/A	
Southwest Washington			, , , , , , , , , , , , , , , , , , ,	(,,			
County FPD (Volunteer)	1/1/15	136,321	\$134,764	(1,557)	101.2%	N/A	
Springfield Police (Old Hire)	1/1/16	460,742	359,315	(101,427)	128.2%	\$0	
Springfield Fire (Volunteer)	1/1/15	141.097	48,654	(92,443)	290.0%	N/A	
Steamboat Springs VFD (Volunteer)	1/1/15	1,334,782	1,518,938	184,156	87.9%	N/A	
Sterling Fire (Old Hire)	1/1/16	730,824	1,355,918	625,094	53.9%	0	
Sterling Police (Old Hire)	1/1/16	308,244	136,821	(171,423)	225.3%	0	
Sterling Fire (Volunteer)	1/1/15	403,848	506,705	102,857	79.7%	N/A	
Stonewall FPD (Volunteer)	1/1/15	814,356	745,523	(68,833)	109.2%	N/A	
Stratton FPD (Volunteer)	1/1/15	130,231	53,035	(77,196)	245.6%	N/A	
Sugar City Fire (Volunteer)	1/1/15	104,075	116,940	12,865	89.0%	N/A	
Sugarloaf FPD (Volunteer)	1/1/15	401,897	598,127	196,230	67.2%	N/A	
Telluride FPD (Volunteer)	1/1/15	1,764,949	2,665,115	900,166	66.2%	N/A	
Thornton Fire (Old Hire)	1/1/16	4,890,245	7,470,746	2,580,501	65.5%	0	
Timberline FPD (Volunteer)	1/1/15	1,759,403	1,891,521	132,118	93.0%	N/A	
Trinidad Fire (Old Hire)	1/1/16	635,872	1,249,122	613,250	50.9%	0	
Trinidad Police (Old Hire)	1/1/16	53,056	122,445	69,389	43.3%	0	
Walsh VFD (Volunteer)	1/1/15	73,748	53,130	(20,618)	138.8%	N/A	
Wellington FPD (Volunteer)	1/1/15	1,491,359	2,242,405	751,046	66.5%	N/A	
West Cheyenne FPD (Volunteer)	1/1/15	148,084	107,182	(40,902)	138.2%	N/A	
West Douglas County FPD (Volunteer	·) 1/1/15	545,979	819,113	273,134	66.7%	N/A	
West Metro FPD (Volunteer)	1/1/15	739,362	713,539	(25,823)	103.6%	N/A	
West Routt FPD (Volunteer)	1/1/15	2,567,807	2,109,835	(457,972)	121.7%	N/A	
Westminster VFD (Volunteer)	1/1/15	2,525,767	1,706,199	(819,568)	148.0%	N/A	
Wet Mountain FPD (Volunteer)	1/1/15	1,673,452	1,379,867	(293,585)	121.3%	N/A	
Wiggins Rural FPD (Volunteer)	1/1/15	904,319	639,878	(264,441)	141.3%	N/A	
Wiley Rural FPD (Volunteer)	1/1/15	127,566	55,417	(72,149)	230.2%	N/A	
Windsor Severance FPD (Volunteer)	1/1/15	2,679,387	3,317,075	637,688	80.8%	N/A	
Yampa FPD (Volunteer)	1/1/15	433,360	601,165	167,805	72.1%	N/A	
Yuma Fire (Volunteer)	1/1/15	510,688	254,181	(256,507)	200.9%	N/A	

<sup>\*</sup>Eligible at age 50 with 20 years of service

	Additional Information									
Calculated Annual Contribution	Amortization Period (Years)	Number of Active Members	Number of Active Members in DROP	Number of Annuitants	Number of Inactive Members	Average Age of Active Members (Years)	Average Service of Active Members (Years)	Volunteer Plan Normal Retirement Benefit (Monthly)*		
\$(161)	20	13	0	23	0	39.2	13.2	\$100		
 (1,770)	20	0	0	12	1	N/A	N/A	400		
1.650	20	13	0	1	5	42.8	10.2	100		
 (9,675)	14	0	0	1	0	N/A	N/A	N/A		
 		12	0	3		38.3	7.1	95		
 (8,922)	20				0					
 16,017	20	1	0	23	4	45.0	5.0	650 N/A		
 64,508	19	0	0	4	0	N/A	N/A	N/A		
 (27,941)	9	0	0	1	0	N/A	N/A	N/A		
 13,881	20	14	0	17	2	28.4	2.9	300		
 35,445	20	32	0	9	1	50.7	5.3	550		
 (7,608)	20	12	0	6	0	38.3	8.3	50		
 2,385	20	13	0	5	0	47.2	14.5	100		
 29,697	20	21	0	21	1	46.7	9.8	220		
 104,620	20	61	0	38	3	43.8	8.1	400		
269,653	18	0	1	19	0	N/A	N/A	N/A		
31,607	20	23	0	50	2	48.3	7.3	340		
72,529	14	0	0	6	0	N/A	N/A	N/A		
 13,070	9	0	0	5	0	N/A	N/A	N/A		
 (538)	20	22	0	0	0	42.5	7.5	100		
 124,314	20	30	0	13	6	33.3	4.6	1,000		
 (3,018)	20	21	0	4	0	35.8	9.0	100		
 39,150	20	31	0	38	1	42.4	5.0	200		
 (6,817)	20	0	0	34	2	N/A	N/A	250		
 (44,497)	20	10	0	22	3	32.1	2.6	750		
 (85,380)	20	0	0	29	0	N/A	N/A	700		
 (26,778)	20	19	0	23	1	37.6	8.1	400		
 (31,837)	20	20	0	13	3	34.5	7.9	275		
 (6,873)	20	8	0	3	0	42.4	7.9	100		
 90,859	20	30	0	34	13	29.1	1.4	775		
 24,839	20	15	0	12	0	38.2	7.7	400		
 (26,841)	20	27	0	25	0	41.1	11.5	75		

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The objectives of the Statistical Section are to provide additional historical perspective, context, and relevant details to assist readers in using information in the financial statements, notes to the financial statements, and required supplementary information in order to understand and assess the overall financial condition of the Fire & Police Members' Benefit Investment Fund and the Fire & Police Members' Self-Directed Investment Fund. In support of these objectives, FPPA reports information in this section in compliance with Governmental Accounting Standards Board (GASB) Statement 44, Economic Condition Reporting: The Statistical Section. This statement establishes standardized reporting requirements relative to the supplementary information provided in this section.

#### FINANCIAL TREND INFORMATION

Pages 181 - 182 Detailed revenue and expense categories for the past 10 years.

- Revenues by Source All Plans
- Revenue Allocation All Plans
- Expenses by Type All Plans
- Page 183 194 Financial trend information about the growth of FPPA's assets within various reporting entities.
  - · Changes in Fiduciary Net Position

This schedule provides detailed information about the trends of key sources of additions and deductions to the Plans' fiduciary net position, which assist in providing a context framing how the Plans' financial position have changed over time.

#### **OPERATING INFORMATION**

Pages 195 - 200 Payment information according to Year Retired within the ranges of Years of Service Credit.

- · Schedule of Average Benefit Payments for New Benefit Recipients
- Pages 201 217 Principal Participating Employers by Plan
- Pages 218 220 Employers

Those employers affiliated for coverage under each applicable plan.

Pages 221 - 226 • Benefit and Refund Deductions from Net Position by Type.

# **DEMOGRAPHIC AND ECONOMIC INFORMATION**

Pages 227 - 233 Demographic information is designed to provide additional insight regarding FPPA's active and retired membership. Economic information provides an overall summary of the sources of change within the Total Pension Fund Fiduciary Net Position managed by FPPA. All non-accounting data is derived from FPPA internal sources. The demographic and economic information presented includes:

- Active Members by Plan Type
- Retired Members by Plan Type
- Defined Benefit System Membership by Status
- Statewide Death & Disability Plan Membership by Status
- · Active and Retired Members by Occupation
- Growth of Total Pension Fund Net Position
- · Schedule of Retired Members by Type of Benefit.

While the material in this section is intended to supplement the independent auditor's report contained elsewhere, none of the information within the Statistical Section has been reviewed or certified as to its accuracy by FPPA's auditors.

# ■ Revenues by Source — All Plans

For Year Ended	Investment Earnings	State Funding	Employers	Employees	Contributions for Service Reinstatements	Affiliations	Total
2016	\$246,981,141	\$2,942,988	\$111,676,139	\$113,054,531	\$59,172		\$474,713,971
2015	72,378,714	2,916,894	123,912,110	122,762,059		(424,968)	321,544,809
2014	288,997,131	2,929,781	116,898,369	97,049,216	17,816		505,892,313
2013	570,927,282	145,255,639	114,808,487	107,025,634	32,919	10,350,550	948,400,511
2012	393,619,896	8,303,953	104,833,565	104,175,480		(1,528,280)	609,404,614
2011	24,699,751	3,102,866	101,823,398	115,127,440		85,939,479	330,692,934
2010	402,703,434	3,078,432	89,914,037	79,691,769		211,874	575,599,546
2009	515,320,880	2,908,504	79,071,860	72,855,332		26,112,745	696,269,321
2008	(1,072,758,209)	37,592,294	88,810,611	60,950,939		1,051,718	(884,352,647)
2007	307,987,773	37,593,512	85,552,218	76,320,853		70,777,656	578,232,012

Prior to 2014, State Funding was provided to both Local Affiliated Old Hire and Volunteer Firefighter plans. The Local Affiliated Old Hire plans had state funding suspended from 2003-2005 and 2009-2011. The State completed their obligation to fund Local Affiliated Old Hire plans as of 5/31/2013. Beginning in 2014 and going forward, the State Funding amounts are representative for Affiliated Volunteer Firefighter plans only.

# ■ Revenue Allocation — All Plans

For Year Ended	Additions to Fund Balance	Benefit Payments	Administrative Expenses	Refunds & Withdrawals	Pension Expense & Change in Net Pension Liability	Total
2016	\$137,769,209	\$274,598,388	\$7,858,514	\$52,264,655	\$2,223,205	\$474,713,971
2015	(17,120,086)	260,160,933	6,978,847	70,279,168	1,245,947	321,544,809
2014	199,350,710	250,181,029	7,872,867	48,487,707		505,892,313
2013	646,654,542	242,611,084	7,218,541	51,916,344		948,400,511
2012	320,639,551	230,312,590	8,307,066	50,145,407		609,404,614
2011	26,307,100	221,287,914	7,386,801	75,711,119		330,692,934
2010	314,956,021	217,548,445	6,501,353	36,593,727		575,599,546
2009	461,550,570	196,224,840	5,829,521	32,664,390		696,269,321
2008	(1,104,966,569)	185,187,189	5,215,816	30,210,917		(884,352,647)
2007	352,182,265	173,142,569	4,197,336	48,709,842		578,232,012

### **■** Expenses by Type — All Plans

For Year Ended	Benefit Payments	Refunds	Administrative Expenses	Pension Expense & change in Net Pension Liability	Capital Expenses	Total Expenses
2016	\$274,598,388	\$52,264,655	\$7,858,514	\$2,223,205	\$596,117	\$337,540,879
2015	260,160,933	70,279,168	6,978,847	1,245,947	339,823	339,004,718
2014	250,181,029	48,487,707	7,872,867		470,437	307,012,040
2013	242,611,084	51,916,344	7,218,541		126,977	301,872,946
2012	230,312,590	50,145,407	8,307,066		375,571	289,140,634
2011	221,287,914	75,711,119	7,386,801		391,016	304,776,850
2010	217,548,445	36,593,727	6,501,353		202,049	260,845,574
2009	196,224,840	32,664,390	5,829,521		6,700	234,725,451
2008	185,187,189	30,210,917	5,215,816		60,051	220,673,973
2007	173,142,569	48,709,842	4,197,336		66,012	226,115,759

### **Changes in Fiduciary Net Position**

Affiliated Local Plan				
Additions	2016	2015	2014	2013
Employer Contributions	\$39,169,647	\$56,296,280	\$52,530,357	\$52,371,362
Member Contributions	156,691	169,253	237,228	176,577
Affiliations (Withdrawals)		(424,968)		(1,537,861)
State Contributions	2,942,988	2,916,894	2,929,781	145,255,639
Investment Income (Loss)	80,195,810	29,503,367	109,355,637	218,204,672
Total Additions	\$122,465,136	\$88,460,826	\$165,053,003	\$414,470,389
Deductions				
Benefit Payments:				
Retirees/Survivors	\$168,257,048	\$165,621,180	\$164,721,406	\$165,121,187
Death/Disability				
Refunds of Contributions	918,003	201,899	521,475	848,221
Administrative Costs	2,561,689	2,523,894	2,680,031	3,160,989
Total Deductions	\$171,736,740	\$168,346,973	\$167,922,912	\$169,130,397
Changes in Fiduciary Net Position	\$(49,271,604)	\$(79,886,147)	\$(2,869,909)	\$245,339,992
Changes in Net Pension Liability	322,903	299,237		
Pension Expense	(500,661)	(464,315)		
Fiduciary Net Position at Beginning of Year	1,560,983,332	1,645,665,903	1,648,535,812	1,403,195,820
Effect of Change in Accounting Principle		(4,631,346)		
Fiduciary Net Position at End of Year	\$1,511,533,970	\$1,560,983,332	\$1,645,665,903	\$1,648,535,812

Additions	2016	2015	2014	2013
Employer Contributions	\$15,145,180	\$13,731,994	\$12,653,911	\$11,863,949
Member Contributions	3,231,908	2,966,031	2,867,243	2,697,161
Affiliations (Withdrawals)				
State Contributions				
Investment Income (Loss)	17,960,708	5,609,096	22,363,360	45,003,288
Total Additions	\$36,337,796	\$22,307,121	\$37,884,514	\$59,564,398
Benefit Payments:				
<u>Deductions</u>				
Retirees/Survivors				
Death/Disability	\$26,128,642	\$24,096,515	\$22,707,843	\$21,018,988
Refunds of Contributions	59,172		12,647	32,919
Administrative Costs	761,530	706,905	722,214	827,325
Total Deductions	\$26,949,344	\$24,803,420	\$23,442,704	\$21,879,232
Changes in Fiduciary Net Position	\$9,388,452	\$(2,496,299)	\$14,441,810	\$37,685,166
Changes in Net Pension Liability	76,837	67,190		
Pension Expense	(183,499)	(104,257)		
Fiduciary Net Position at Beginning of Year	350,652,065	354,225,348	339,783,538	302,098,372
Effect of Change in Accounting Principle		(1,039,917)		
Fiduciary Net Position at End of Year	\$359,933,855	\$350,652,065	\$354,225,348	\$339,783,538

	2012	2011	2010	2009	2008	2007
9	\$46,585,541	\$46,108,486	\$37,239,905	\$30,813,175	\$46.007.841	\$47,549,603
	140,504	169,643	276,165	366,911	640,234	1,238,824
	(17,186)	2,512,024	-678,910		21,194	7,042,765
	8,303,953	3,102,866	3,078,432	2,908,504	37,592,294	37,593,512
•	154,887,279	11,809,291	178,431,326	240,361,700	(552,351,083)	167,049,310
\$2	09,900,091	\$63,702,310	\$218,346,918	\$274,450,290	\$(468,089,520)	\$260,474,014
\$*	165,552,566	\$162,511,376	\$164,220,145	\$157,644,750	\$152,270,531	\$146,375,432
	315,017	584,749	1,823,003	5,045,932	2,958,380	3,219,143
	3,200,335	3,002,396	2,927,262	2,797,233	2,693,660	2,337,465
\$1	69,067,918	\$166,098,521	\$168,970,410	\$165,487,915	\$157,922,571	\$ 151,932,040
	\$40,832,173	\$(102,396,211)	\$49,376,508	\$108,962,375	\$(626,012,091)	\$108,541,974
1,	362,363,647	1,464,759,858	1,415,383,350	1,306,420,975	1,932,433,066	1,823,891,092
\$1,	403,195,820	\$1,362,363,647	\$1,464,759,858	\$1,415,383,350	\$1,306,420,975	\$1,932,433,066

2012	2011	2010	2009	2008	2007
\$11,100,211	\$10,602,122	\$10,001,394	\$9,573,756	\$8,562,034	\$7,522,862
 2,516,758	2,354,267	2,307,656	2,311,648	2,356,603	2,372,335
 32,323,103	2,035,621	33,679,604	42,062,468	-89,411,107	26,139,800
\$45,940,072	\$14,992,010	\$45,988,654	\$53,947,872	\$(78,492,470)	\$36,034,997
 \$19,482,152	\$18,217,570	\$17,376,644	\$15,995,412	\$14,886,707	\$13,741,872
	47,192	58,440	14,242		
673,194	592,716	544,161	485,984	435,765	369,928
\$20,155,346	\$18,857,478	\$17,979,245	\$16,495,638	\$15,322,472	\$14,111,800
 \$25,784,726	\$(3,865,468)	\$28,009,409	\$37,452,234	\$(93,814,942)	\$21,923,197
276,313,646	280,179,114	252,169,705	214,717,471	308,532,413	286,609,216
 \$302,098,372	\$276,313,646	\$280,179,114	\$252,169,705	\$214,717,471	\$308,532,413

A dalta ana	2016	2015	2014	2012
Additions	2016	2015	2014	2013
Employer Contributions				\$46,987,285
Member Contributions				63,990,476
Contributions for Service Reinstatement				32,919
Affiliations (Withdrawals)				
State Contributions				
Investment Income (Loss)				265,190,786
Total Additions				\$376,201,466
Deductions				
Benefit Payments:				
				56,470,909
Benefit Payments: Retirees/Survivors				
Benefit Payments: Retirees/Survivors Death/Disability				56,470,909
Benefit Payments: Retirees/Survivors Death/Disability Refunds of Contributions				56,470,909 3,130,258
Benefit Payments: Retirees/Survivors Death/Disability Refunds of Contributions Administrative Costs Total Deductions				56,470,909 3,130,258 3,988,951 \$63,590,118
Benefit Payments:  Retirees/Survivors  Death/Disability  Refunds of Contributions  Administrative Costs				56,470,909 3,130,258 3,988,951

Note 1: With the implementation of GASB Statement No. 67 in 2014, FPPA is now presenting the individual plan information of those plans that comprise the Defined Benefit System in the Financial Section; therefore, data is presented for the Defined Benefit System prior to 2014

<b>Defined Benefit System</b>   Statewide D	Defined Benefit Plan			
Additions	2016	2015	2014	2013
Employer Contributions	\$41,240,159	\$38,079,177	\$35,919,292	
Member Contributions	59,793,315	70,733,575	47,475,429	
Contributions for Service Reinstatement	20,412		10,815	
Affiliations (Withdrawals)				
State Contributions				
Investment Income (Loss)	101,487,849	30,600,923	111,783,092	
Total Additions	\$202,541,735	\$139,413,675	\$195,188,628	
<b>Deductions</b> Benefit Payments:				
Benefit Payments:				
Retirees/Survivors	\$60,019,888	\$53,129,403	\$47,655,798	
Death/Disability				
Refunds of Contributions	1,813,180	1,763,962	1,848,698	
Administrative Costs	3,383,944	3,022,771	2,981,129	
Total Deductions	\$65,217,012	\$57,916,136	\$52,485,625	
Changes in Fiduciary Net Position	\$137,324,723	\$81,497,539	\$142,703,003	
Changes in Net Pension Liability	422,911	353,403		
Pension Expense	(1,273,038)	(548,363)		
Fiduciary Net Position at Beginning of Year	1,844,060,612	1,768,227,718	1,625,524,715	
Effect of Change in Accounting Principle		(5,469,685)		
Fiduciary Net Position at End of Year	\$1,980,535,208	\$1,844,060,612	\$1,768,227,718	

Note 1: Data is presented for this individual plan beginning in 2014 to remain consistent with the Financial Section and the impact of the implementation of GASB Statement No. 67. Plan data is presented for prior years as part of the Defined Benefit System.

Note 2: Information prior to 2014 is not available.

2012	2011	2010	2009	2008	2007
\$43,554,063	\$41,676,619	\$40,075,299	\$36,109,248	\$31,867,543	\$29,464,995
 65,719,525	76,527,790	41,303,655	46,415,422	33,780,203	49,112,009
 177,692,483	9.332.179	165,582,369	193,591,955	(382,348,087)	103,317,713
\$286,966,071	\$127,536,588	\$246,961,323	\$276,116,625	\$(316,700,341)	\$181,894,717
 45,277,872	40,558,968	35,951,656	22,584,678	18,029,951	13,025,265
 1,988,637	2,400,352	1,883,717	2,488,556	4,076,623	5,375,671
 3,734,627	3,043,671	2,644,986	2,219,881	1,854,959	1,489,943
\$51,001,136	\$46,002,991	\$40,480,359	\$27,293,115	\$23,961,533	\$19,890,879
\$235,964,935	\$81,533,597	\$206,480,964	\$248,823,510	\$(340,661,874)	\$162,003,838
 1,472,591,717	1,391,058,120	1,184,577,156	935,753,646	1,276,415,520	1,114,411,682
\$1,708,556,652	\$1,472,591,717	\$1,391,058,120	\$1,184,577,156	\$935,753,646	\$1,276,415,520

2012	2011	2010	2009	2008	2007

<b>Defined Benefit System</b>   Statewide H	ybrid Plan - Defined Be	nefit Component		
Additions	2016	2015	2014	2013
Employer Contributions	\$1,296,013	\$1,298,827	\$1,235,014	
Member Contributions	4,117,438	4,323,776	1,764,160	
Contributions for Service Reinstatement				
Affiliations (Withdrawals)				
State Contributions				
Investment Income (Loss)	2,656,991	673,519	2,565,885	
Total Additions	\$8,070,442	\$6,296,122	\$5,565,059	
Deductions				
Benefit Payments:				
Retirees/Survivors	1,191,766	\$953,099	\$752,330	
Death/Disability				
Refunds of Contributions	17,151	18,365	35,373	
Administrative Costs	87,869	73,679	67,974	
Total Deductions	\$1,296,786	\$1,045,143	\$855,677	
Changes in Fiduciary Net Position	\$6,773,656	\$5,250,979	\$4,709,382	
Changes in Net Pension Liability	11,307	8,852		
Pension Expense	(43,608)	(13,735)		
Fiduciary Net Position at Beginning of Year	46,197,286	41,088,190	36,378,808	
Effect of Change in Accounting Principle		(137,000)		
Fiduciary Net Position at End of Year	\$52,938,641	\$46,197,286	\$41,088,190	

Note 1: Data is presented for this individual plan beginning in 2014 to remain consistent with the Financial Section and the impact of the implementation of GASB Statement No. 67. Plan data is presented for prior years as part of the Defined Benefit System. Note 2: Information prior to 2014 is not available.

<b>Defined Benefit System</b>   Colorado Spi	rings New Hire Pensio	on Plan - FIRE Cor	nponent		
Additions	2016	2015	2014	2013	
Employer Contributions	\$3,700,396	\$3,437,596	\$3,341,129		
Member Contributions	1,082,855	1,202,513	1,278,915		
Contributions for Service Reinstatement	38,760		7,001		
Affiliations (Withdrawals)					
State Contributions					
Investment Income (Loss)	6,576,572	2,213,385	7,931,299		
Total Additions	\$11,398,583	\$6,853,494	\$12,558,344		
Deductions					
Benefit Payments:					
Retirees/Survivors	7,395,735	6,234,574	5,406,076		
Death/Disability					
Refunds of Contributions	167,056				
Administrative Costs	209,360	194,113	195,698		
Total Deductions	\$7,772,151	\$6,428,687	\$5,601,774		
Changes in Fiduciary Net Position	\$3,626,432	\$424,807	\$6,956,570		
Changes in Net Pension Liability	26,969	23,557			
Pension Expense	(64,820)	(36,553)			
Fiduciary Net Position at Beginning of Year	122,865,617	122,818,402	115,861,832		
Effect of Change in Accounting Principle		(364,596)			
Fiduciary Net Position at End of Year	\$126,454,198	\$122,865,617	\$122,818,402		

Note 1: Data is presented for this individual plan beginning in 2014 to remain consistent with the Financial Section and the impact of the implementation of GASB Statement No. 67. Plan data is presented for prior years as part of the Defined Benefit System.

Note 2: Information prior to 2014 is not available.

2012	2011	2010	2009	2008	2007
2012					2007
2012	2011	2010	2009	2008	2007
2012	2011	2010	2009	2008	2007
2012					

Defined Benefit System   Colorado Springs New Hire Pension Plan - POLICE Component								
Additions	2016	2015	2014	2013				
Employer Contributions	\$7,900,050	\$7,916,242	\$7,728,841					
Member Contributions	2,707,964	2,493,427	2,830,620					
Contributions for Service Reinstatement								
Affiliations (Withdrawals)								
State Contributions								
Investment Income (Loss)	14,390,904	4,700,518	16,759,706					
Total Additions	\$24,998,918	\$15,110,187	\$27,319,167					
Deductions								
Benefit Payments:								
Retirees/Survivors	\$11,592,619	\$10,115,964	\$8,928,010					
Death/Disability								
Refunds of Contributions	83,530	99,734	443,708					
Administrative Costs	452,011	412,521	409,357					
Total Deductions	\$12,128,160	\$10,628,219	\$9,781,075					
Changes in Fiduciary Net Position	\$12,870,758	\$4,481,968	\$17,538,092					
Changes in Net Pension Liability	59,129	50,691						
Pension Expense	(157,454)	(78,656)						
Fiduciary Net Position at Beginning of Year	264,390,256	260,720,815	243,182,723					
Effect of Change in Accounting Principle		(784,562)						
Fiduciary Net Position at End of Year	\$277,162,689	\$264,390,256	\$260,720,815					

Note 1: Data is presented for this individual plan beginning in 2014 to remain consistent with the Financial Section and the impact of the implementation of GASB Statement No. 67. Plan data is presented for prior years as part of the Defined Benefit System. Note 2: Information prior to 2014 is not available.

FPPA Staff Healthcare Subsidy Plan					
Additions	2016	2015	2014	2013	
Employer Contributions	\$8,478	\$5,818	\$6,240	\$8,056	
Member Contributions					
Affiliations (Withdrawals)					
State Contributions					
Investment Income (Loss)	12,207	4,159	14,757	28,411	
Total Additions	\$20,685	\$9,977	\$20,997	\$36,467	
Deductions					
Benefit Payments:					
Retirees/Survivors	\$12,690	\$10,198	\$9,566	\$8,264	
Death/Disability					
Refunds of Contributions					
Administrative Costs	381	354	359		
Total Deductions	\$13,071	\$10,552	\$9,925	\$8,264	
Changes in Fiduciary Net Position	\$7,614	\$(575)	\$ 11,072	\$ 28,203	
Changes in Net Pension Liability	51	44			
Pension Expense	(125)	(68)			
Fiduciary Net Position at Beginning of Year	229,713	230,994	219,922	191,719	
Effect of Change in Accounting Principle		(682)			
Fiduciary Net Position at End of Year	\$237,253	\$229,713	\$230,994	\$219,922	

20	12	2011	2010	2009	2008	2007
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2012	2011	2010	2009	2008	2007
 \$13,266	\$14,823	\$14,316	\$13,632	\$12,425	\$8,600
19,028	962	17,556	19,670	(38,716)	10,314
\$32,294	\$15,785	\$31,872	\$33,302	\$(26,291)	\$18,914
 \$6,500	\$5,958	\$7,041	\$6,349	\$1,348	\$2,226
 	ČT 050	67.041	¢6.240	č1240	÷2 226
\$6,500	\$5,958	\$7,041	\$6,349	\$1,348	\$2,226
 \$ 25,794	\$ 9,827	\$ 24,831	\$ 26,953	\$ (27,639	16,688
 165,925	156,098	131,267	104,314	131,953	115,265
\$191,719	\$165,925	\$156,098	\$131,267	\$104,314	\$131,953

Fire & Police Members' Statewide Money Purchase Plan							
Additions	2016	2015	2014	2013			
Employer Contributions	\$424,263	\$405,178	\$385,503	\$402,308			
Member Contributions	406,716	386,856	367,925	383,665			
Affiliations (Withdrawals)							
State Contributions							
Investment Income (Loss)	732,303	(20,666)	412,534	999,304			
Total Additions	\$1,563,282	\$771,368	\$1,165,962	\$1,785,277			
Deductions							
Benefit Payments:							
Retirees/Survivors							
Death/Disability							
Refunds of Contributions	\$247,528	\$245,503	\$300,406	\$951,163			
Administrative Costs	45,494	5,745	(2,477)	3,360			
Total Deductions	\$293,022	\$251,248	\$297,929	\$954,523			
Changes in Fiduciary Net Position	\$1,270,260	\$520,120	\$868,033	\$830,754			
Fiduciary Net Position at Beginning of Year	8,874,733	8,354,613	7,486,580	6,655,826			
Fiduciary Net Position at End of Year	\$10,144,993	\$8,874,733	\$8,354,613	\$7,486,580			

Self-Directed Assets for Affiliated	Local & Defined Bene	fit System Plans		
Additions	2016	2015	2014	2013
Employer Contributions	\$1,630,058	\$1,835,971	\$2,282,111	\$2,393,547
Member Contributions	32,195,754	31,834,156	32,938,657	32,544,971
Affiliations (Withdrawals)			11,888,411	2,094,860
State Contributions				
Investment Income (Loss)	15,239,580	(906,517)	12,440,752	29,174,866
Total Additions	\$49,065,392	\$32,763,610	\$47,661,520	\$76,001,795
Deductions				
Benefit Payments:				
Retirees/Survivors				
Death/Disability				
Refunds of Contributions	\$41,738,925	\$62,813,697	\$39,891,560	\$42,699,246
Administrative Costs	1,078,844	782,721	797,665	638,000
Total Deductions	\$42,817,769	\$63,596,418	\$40,689,225	\$43,337,246
Changes in Fiduciary Net Position	\$6,247,623	\$(30,832,808)	\$6,972,295	\$32,664,549
Fiduciary Net Position at Beginning of Year	247,863,645	278,696,453	271,724,158	239,059,609
Fiduciary Net Position at End of Year	\$254,111,268	\$247,863,645	\$278,696,453	\$271,724,158

2007	2008	2009	2010	2011	2012	
\$250,200	\$282,877	\$295,874	\$319,739	\$313,947	\$378,338	
250,200	283,369	295,874	312,330	297,614	357,791	
			25,671			
417,710	(1,405,228)	958,382	684,169	71,541	681,003	
\$918,110	\$(838,982)	\$1,550,130	\$1,341,909	\$683,102	\$1,417,132	
\$644,083	\$500,040	\$262,920	\$402,564	\$175,587	\$1,067,020	
		14,623	6,460	11,116	8	
\$644,083	\$500,040	\$277,543	\$409,024	\$186,703	\$1,067,028	
\$274,027	\$(1,339,022)	\$1,272,587	\$932,885	\$496,399	\$350,104	
4,668,846	4,942,873	3,603,851	4,876,438	5,809,323	6,305,722	
\$4,942,873	\$3,603,851	\$4,876,438	\$5,809,323	\$6,305,722	\$6,655,826	

2012	2011	2010	2009	2008	2007
\$2,460,673	\$2,421,796	\$2,277,700	\$2,279,807	\$2,065,284	\$684,519
 27,921,453	29,697,334	28,407,353	17,604,699	17,009,496	16,815,374
 83,427,455	865,113	26,112,745	1,532,625	69,134,962	
 20,173,141	1,596,788	16,632,880	27,211,960	(30,051,876)	6,163,503
\$52,650,127	\$117,143,373	\$48,183,046	\$73,209,211	\$(9,444,471)	\$92,798,358
 \$42,317,300	\$67,711,031	\$27,588,789	\$22,942,996	\$20,852,584	\$36,396,439
 679,615	649,032	336,571	271,171	720,032,301	750,550, 155
\$42,996,915	\$68,360,063	\$27,925,360	\$23,214,167	\$20,852,584	\$36,396,439
\$9,653,212	\$48,783,310	\$20,257,686	\$49,995,044	\$(30,297,055)	\$56,401,919
229,406,397	180,623,087	160,365,401	110,370,357	140,667,412	84,265,493
\$239,059,609	\$229,406,397	\$180,623,087	\$160,365,401	\$110,370,357	\$140,667,412

IRC 457 Deferred Compensation Pl	an				
Additions	2016	2015	2014	2013	
Employer Contributions	\$1,161,895	\$905,027	\$815,971	\$790,036	
Member Contributions	9,361,890	8,652,472	7,289,039	7,232,784	
Affiliations (Withdrawals)				(3,605,954)	
State Contributions					
Investment Income (Loss)	7,728,217	930	5,370,110	13,771,024	
Total Additions	\$18,252,002	\$9,558,429	\$13,475,120	\$21,793,844	
Deductions					
Benefit Payments:					
Retirees/Survivors					
Death/Disability					
Refunds of Contributions	\$7,220,110	\$5,136,008	\$5,433,841	\$4,254,537	
Administrative Costs	197,499	59,118	20,917	16,574	
Total Deductions	\$7,417,609	\$5,195,126	\$5,454,758	\$4,271,111	
Changes in Fiduciary Net Position	\$10,834,393	\$4,363,303	\$8,020,362	\$17,522,733	
Fiduciary Net Position at Beginning of Year	101,706,022	97,342,719	89,322,357	71,799,624	
Fiduciary Net Position at End of Year	\$112,540,415	\$101,706,022	\$97,342,719	\$89,322,357	

Note: 2011 is the first year in which Contributions have been split between Employer and Member for financial reporting purposes for this Plan.

2012	2011	2010	2009	2008	2007
\$754,739	\$700,428				
 7,519,449	6,080,792	\$7,084,610	\$5,860,778	\$6,856,002	\$6,433,829
 7,862,887	(145,669)	7,693,086	11,134,415	(17,374,290)	4,745,946
\$12,531,121	\$6,635,551	\$14,777,696	\$16,995,193	\$(10,518,288)	\$11,179,775
 \$4,457,433	\$4,792,208	\$4,837,214	\$1,909,744	\$1,821,135	\$2,861,400
 19,287	87,870	41,913	40,629		
\$4,476,720	\$4,880,078	\$4,879,127	\$1,950,373	\$1,821,135	\$2,861,400
 60.054.404	61.755.473	Ć0 000 500	Ć15 044 020	¢(12, 220, 422)	ć0 210 27 <i>5</i>
 \$8,054,401	\$1,755,473	\$9,898,569	\$15,044,820	\$(12,339,423)	\$8,318,375
63,745,223	61,989,750	52,091,181	37,046,361	49,385,784	41,067,409
\$71,799,624	\$63,745,223	\$61,989,750	\$52,091,181	\$37,046,361	\$49,385,784

### Schedule of Average Benefit Payments for New Benefit Recipients

## **Affiliated Local Plan**

Year Retired	In Total	Year Retired	In Total
1/1/2016 - 12/31/2016		1/1/2011 - 12/31/2011	
Average monthly benefit	\$971	Average monthly benefit	\$456
Average highest average salary	Not Available	Average highest average salary	Not Available
Number of service retirees	0	Number of service retirees	135
1/1/2015 - 12/31/2015		1/1/2010 - 12/31/2010	
Average monthly benefit	\$878	Average monthly benefit	\$415
Average highest average salary	Not Available	Average highest average salary	Not Available
Number of service retirees	190	Number of service retirees	172
1/1/2014 - 12/31/2014		1/1/2009 - 12/31/2009	
Average monthly benefit	\$887	Average monthly benefit	\$429
Average highest average salary	Not Available	Average highest average salary	Not Available
Number of service retirees	197	Number of service retirees	125
1/1/2013 - 12/31/2013		1/1/2008 - 12/31/2008	
Average monthly benefit	\$834	Average monthly benefit	\$399
Average highest average salary	Not Available	Average highest average salary	Not Available
Number of service retirees	229	Number of service retirees	95
1/1/2012 - 12/31/2012		1/1/2007 - 12/31/2007	
Average monthly benefit	\$344	Average monthly benefit	\$1,717
Average highest average salary	Not Available	Average highest average salary	Not Available
Number of service retirees	157	Number of service retirees	200

Note: Information on Years of Service is not available for the Affiliated Local Plans.

#### Statewide Death & Disability Plan

Year Retired	In Total	Year Retired	In Total
1/1/2016 - 12/31/2016		1/1/2011 - 12/31/2011	
Average monthly benefit	\$2,239	Average monthly benefit	\$2,078
Average highest average salary	\$6,148	Average highest average salary	\$5,362
Number of service retirees	68	Number of service retirees	46
1/1/2015 - 12/31/2015		1/1/2010 - 12/31/2010	
Average monthly benefit	\$2,478	Average monthly benefit	\$2,277
Average highest average salary	\$5,787	Average highest average salary	\$5,804
Number of service retirees	52	Number of service retirees	50
1/1/2014 - 12/31/2014		1/1/2009 - 12/31/2009	
Average monthly benefit	\$2,336	Average monthly benefit	\$2,372
Average highest average salary	\$5,829	Average highest average salary	Not Available
Number of service retirees	67	Number of service retirees	54
1/1/2013 - 12/31/2013		1/1/2008 - 12/31/2008	
Average monthly benefit	\$2,413	Average monthly benefit	\$2,332
Average highest average salary	\$5,761	Average highest average salary	Not Available
Number of service retirees	56	Number of service retirees	45
1/1/2012 - 12/31/2012		1/1/2007 - 12/31/2007	
Average monthly benefit	\$2,160	Average monthly benefit	\$2,703
Average highest average salary	\$5,748	Average highest average salary	Not Available
Number of service retirees	56	Number of service retirees	39

Note: Service is not taken into consideration in the benefit calculation for the Statewide Death & Disability Plan, therefore only totals are available.

### **Statistical Section Operating Information** *continued*

### Schedule of Average Benefit Payments for New Benefit Recipients continued

			Years of Se	rvice Credit		
Year Retired	0-10	10-15	15-20	20-25	25-30	30+
1/1/2016 - 12/31/2016						
Average monthly benefit	\$628	\$1,263	\$1,870	\$3,192	\$4,541	\$5,197
Average highest average salary	\$5,442	\$5,259	\$5,919	\$6,737	\$6,299	\$7,818
Number of service retirees	10	11	13	13	44	4(
1/1/2015 - 12/31/2015						
Average monthly benefit	\$725	\$1,217	\$1,929	\$3,594	\$4,390	\$4,876
Average highest average salary	\$4,877	\$5,157	\$5,509	\$7,235	\$7,437	\$7,280
Number of service retirees	3	19	9	22	33	45
1/1/2014 - 12/31/2014						
Average monthly benefit	\$700	\$1,089	\$2,167	\$3,317	\$4,003	\$5,333
Average highest average salary	\$4,861	\$4,467	\$5,945	\$6,809	\$7,021	\$7,443
Number of service retirees	13	18	6	30	43	36
1/1/2013 - 12/31/2013						
Average monthly benefit	\$639	\$1,186	\$2,249	\$3,174	\$4,226	\$5,13
Average highest average salary	\$4,719	\$7,173	\$6,925	\$6,765	\$7,378	\$7,50
Number of service retirees	9	12	5	25	42	62
1/1/2012 - 12/31/2012						
Average monthly benefit	\$314	\$963	\$2,052	\$3,088	\$3,978	\$5,002
Average highest average salary	\$3,787	\$4,863	\$5,771	\$6,733	\$6,709	\$7,147
Number of service retirees	2	9	9	23	35	37
1/1/2011 - 12/31/2011						
Average monthly benefit	\$708	\$986	\$1,459	\$3,003	\$4,031	\$4,775
Average highest average salary	\$5,403	\$4,914	\$4,656	\$6,329	\$6,842	\$6,786
Number of service retirees	4	9	6	24	44	43
1/1/2010 - 12/31/2010						
Average monthly benefit	\$681	\$863	\$1,692	\$3,171	\$3,954	\$4,571
Average highest average salary	\$1,958	\$3,607	\$4,463	\$6,487	\$6,829	\$6,945
Number of service retirees	4	4	13	15	32	26
1/1/2009 - 12/31/2009		400.	40	<u> </u>	40.555	
Average monthly benefit	\$0	\$834	\$2,275	\$2,527	\$3,600	\$4,60
Average highest average salary	\$0	\$3,903	\$5,755	\$5,457	\$6,056	\$6,613
Number of service retirees	0	8	7	13	30	1.
1/1/2008 - 12/31/2008	ć1 1 C F	ć1 100	¢1.633	¢2.566	62.667	60.74
Average monthly benefit	\$1,165	\$1,193	\$1,632	\$2,566	\$3,667	\$3,717
Average highest average salary	\$3,940	\$3,957	\$4,107	\$4,965	\$5,478	\$6,89
Number of service retirees	2	5	9	15	26	

Note: Detailed information prior to 2008 is not available.

			Years of Se	rvice Credit		
Year Retired	0-10	10-15	15-20	20-25	25-30	30-
1/1/2016 - 12/31/2016						
Average monthly benefit	\$0	\$0	\$0	\$3,208	\$2,984	\$5,652
Average highest average salary	\$0	\$0	\$0	\$8,818	\$6,824	\$10,565
Number of service retirees	0	0	0	2	2	2
1/1/2015 - 12/31/2015						
Average monthly benefit	\$1,287	\$2,338	\$1,952	\$1,614	\$0	\$2,844
Average highest average salary	\$5,007	\$10,889	\$5,670	\$5,952	\$0	\$6,965
Number of service retirees	4	1	1	1	0	2
1/1/2014 - 12/31/2014						
Average monthly benefit	\$3,412	\$0	\$0	\$0	\$0	\$3,488
Average highest average salary	\$3,837	\$0	\$0	\$0	\$0	\$6,820
Number of service retirees	2	0	0	0	0	2
1/1/2013 - 12/31/2013						
Average monthly benefit	\$0	\$0	\$0	\$0	\$3,162	\$2,459
Average highest average salary	\$0	\$0	\$0	\$0	\$8,083	\$5,455
Number of service retirees	0	0	0	0	1	2
1/1/2012 - 12/31/2012						
Average monthly benefit	\$0	\$1,552	\$0	\$2,065	\$0	\$0
Average highest average salary	\$0	\$4,964	\$0	\$5,815	\$0	\$0
Number of service retirees	0	1	0	1	0	C
1/1/2011 - 12/31/2011						
Average monthly benefit	\$4,560	\$1,671	\$0	\$0	\$0	\$4,889
Average highest average salary	N/A	\$8,854	\$0	\$0	\$0	\$7,530
Number of service retirees	1	1	0	0	0	1
1/1/2010 - 12/31/2010						
Average monthly benefit	\$0	\$993	\$0	\$0	\$1,801	\$2,374
Average highest average salary	\$0	\$4,168	\$0	\$0	\$5,674	\$6,331
Number of service retirees	0	1	0	0	1	2
1/1/2009 - 12/31/2009						
Average monthly benefit	\$0	\$0	\$0	\$0	\$0	\$0
Average highest average salary	\$0	\$0	\$0	\$0	\$0	\$0
Number of service retirees	0	0	0	0	0	C
1/1/2008 - 12/31/2008						
Average monthly benefit	\$0	\$0	\$0	\$0	\$1,579	\$3,365
Average highest average salary	\$0	\$0	\$0	\$0	\$4,887	\$7,901
Number of service retirees	0	0	0	0	1	1

Note: Detailed information prior to 2008 is not available.

### Schedule of Average Benefit Payments for New Benefit Recipients continued

Defined Benefit S	ystem	Colorado Si	prings New Hire Pension Plan

			Years of Se	rvice Credit		
Year Retired	0-10	10-15	15-20	20-25	25-30	30+
1/1/2016 - 12/31/2016						
Average monthly benefit	\$0	\$1,515	\$1,212	\$2,686	\$4,498	\$5,441
Average highest average salary	\$0 \$0	\$6,001	\$6,088	\$6,824	\$7,305	\$7,108
Number of service retirees	0	30,001	2	10	25	97,100
1/1/2015 - 12/31/2015	**	44.000	÷2.224	†2.504	44260	44.040
Average monthly benefit	\$0	\$1,000	\$2,291	\$3,684	\$4,369	\$6,243
Average highest average salary	\$0	\$4,710	\$5,935	\$6,622	\$7,058	\$8,362
Number of service retirees	0	4	3	8	19	11
1/1/2014 - 12/31/2014						
Average monthly benefit	\$0	\$1,186	\$1,917	\$3,253	\$4,081	\$5,828
Average highest average salary	\$0	\$4,744	\$5,053	\$6,126	\$6,516	\$7,718
Number of service retirees	0	3	4	5	9	9
1/1/2013 - 12/31/2013						
Average monthly benefit	\$0	\$1,287	\$1,703	\$3,165	\$4,099	\$0
Average highest average salary	\$0	\$5,589	\$5,017	\$6,293	\$6,602	\$0
Number of service retirees	0	2	2	7	5	0
1/1/2012 - 12/31/2012						
Average monthly benefit	\$0	\$1,281	\$2,977	\$2,711	\$4,522	\$4,327
Average highest average salary	\$0	\$5,629	\$7,088	\$5,449	\$6,885	\$5,769
Number of service retirees	0	2	1	3	4	1
1/1/2011 - 12/31/2011						
Average monthly benefit	\$0	\$1,253	\$1,903	\$3,114	\$4,559	\$5,255
Average highest average salary	\$0	\$5,064	\$5,653	\$6,323	\$6,985	\$6,955
Number of service retirees	0	3	7	9	13	7
1/1/2010 - 12/31/2010						
Average monthly benefit	\$0	\$1,283	\$1,843	\$3,607	\$4,397	\$5,879
Average highest average salary	\$0	\$5,639	\$5,064	\$6,746	\$6,903	\$8,512
Number of service retirees	0	1	3	6	19	8
1/1/2009 - 12/31/2009						
Average monthly benefit	\$0	\$930	\$1,567	\$3,092	\$4,596	\$5,188
Average highest average salary	\$0	\$4,312	\$5,223	\$5,839	\$7,030	\$6,868
Number of service retirees	0	3	1	6	8	12
1/1/2008 - 12/31/2008						
Average monthly benefit	\$0	\$1,767	\$0	\$3,238	\$4,116	\$5,981
Average highest average salary	\$0	\$5,684	\$0	\$5,923	\$6,390	\$7,961
Number of service retirees	0	75,001	0	7	17	3

Note: Detailed information prior to 2008 is not available.

#### Schedule of Average Benefit Payments for New Benefit Recipients continued

			Years of Serv	ico Crodit		
Year Retired	0-10	10-15	15-20	20-25	25-30	30+
	<u> </u>					
1/1/2016 - 12/31/2016						
Average monthly benefit	\$0	\$0	\$0	\$0	\$0	\$0
Average highest average salary	Highest Average Sale					
Number of service retirees	0	0	0	0	0	0
1/1/2015 - 12/31/2015						
Average monthly benefit	\$0	\$0	\$0	\$0	\$0	\$0
Average highest average salary	Highest Average Sala	ary is not taken	into considerati	on in the benefi	it calculation for	this plan.
Number of service retirees	0	0	0	0	0	0
1/1/2014 - 12/31/2014						
Average monthly benefit	\$0	\$0	\$230	\$0	\$0	\$0
Average highest average salary	Highest Average Sala	ary is not taken	into considerati	on in the benefi	it calculation for	this plan.
Number of service retirees	0	0	1	0	0	0
1/1/2013 - 12/31/2013						
Average monthly benefit	\$0	\$136	\$0	\$0	\$0	\$0
Average highest average salary	Highest Average Sala	ary is not taken	into considerati	on in the benefi	it calculation for	this plan.
Number of service retirees	0	1	0	0	0	0
1/1/2012 - 12/31/2012	***	**	<u> </u>	***	<u> </u>	**
Average monthly benefit	\$0	\$0	. ,	\$0	\$0	\$0 
Average highest average salary	Highest Average Sala					
Number of service retirees	0	0	0	0	0	0
1/1/2011 - 12/31/2011						
Average monthly benefit	\$0	\$0	\$0	\$0	\$0	\$0
Average highest average salary	Highest Average Sala					
Number of service retirees	0	0	0	0	0	0
1/1/2010 - 12/31/2010						
Average monthly benefit	\$0	\$0	\$0	\$0	\$0	\$0
Average highest average salary	Highest Average Sala	ary is not taken	into considerati	on in the benefi	it calculation for	this plan.
Number of service retirees	0	0	0	0	0	0
1/1/2009 - 12/31/2009						
Average monthly benefit	\$0	\$0	\$0	\$0	\$288	\$0
Average highest average salary	Highest Average Sala	ary is not taken	into considerati		it calculation for	this plan.
Number of service retirees	0	0	0	0	1	0
1/1/2008 - 12/31/2008						
Average monthly benefit	\$0	\$0	\$213	\$0	\$0	\$0
Average highest average salary	Highest Average Sala	:		! 41 1 6		thic plan

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Note: Detailed information prior to 2008 is not available.

Number of service retirees 0

#### **Principal Participating Employers**

### **Affiliated Local Plans**

Employer	Rank	Covered Active Members as of 12/31/2016	Percentage of Total Plan
Evergreen Fire Protection District (Volunteer)	1	103	3.34%
Durango Fire Protection District (Volunteer)	2	70	2.27%
Telluride Fire Protection District (Volunteer)	3	58	1.88%
Florence Fire Protection District (Volunteer)	4	55	1.79%
Pleasant View Metro Fire District (Volunteer)	5	51	1.66%
Elk Creek Fire Protection District (Volunteer)	6	47	1.53%
Palisade Volunteer Fire Department	7	45	1.46%
Carbondale & Rural Fire Protection District (Volunteer)	7	45	1.46%
Foothills Fire & Rescue (Volunteer)	7	45	1.46%
Poudre Canyon Fire Protection District (Volunteer)	8	43	1.40%
Inter-Canyon Fire Protection District (Volunteer)	8	43	1.40%
Lyons Fire Protection District (Volunteer)	9	42	1.36%
Northwest Conejos County Fire Protection District (Volunteer)	10	39	1.27%

		<b>Covered Active Members</b>	Percentage of
Employer	Rank	as of 12/31/2015	Total Plan
Evergreen Fire (Volunteer)	1	94	2.89%
Durango Fire Protection District (Volunteer)	2	68	2.09%
Carbondale and Rural Fire Protection District (Volunteer)	3	66	2.03%
Telluride Fire Protection District (Volunteer)	4	60	1.84%
Elk Creek Fire Protection District (Volunteer)	5	49	1.51%
Florence Fire Protection District (Volunteer)	6	47	1.44%
Poudre Canyon Fire Protection District (Volunteer)	6	47	1.44%
Palisade Volunteer Fire Department	7	46	1.41%
Golden Volunteer Fire Department	8	43	1.32%
Foothills Fire & Rescue Fire Protection District	9	42	1.29%
Inter-Canyon Fire Protection District	9	42	1.29%
Lyons Fire Protection District	10	39	1.20%
Rattlesnake Fire Protection District	10	39	1.20%

		<b>Covered Active Members</b>	Percentage of
Employer	Rank	as of 12/31/2014	Total Plan
Evergreen Fire (Volunteer)	1	84	6.40%
Durango Fire Protection District (Volunteer)	2	74	5.64%
Carbondale and Rural Fire Protection District (Volunteer)	3	67	5.10%
Telluride Fire Protection District (Volunteer)	4	61	4.65%
South Adams County Fire Protection District (Volunteer)	5	59	4.49%
Florence Fire Protection District (Volunteer)	6	50	3.81%
Elk Creek Fire Protection District (Volunteer)	7	49	3.73%
Golden Volunteer Fire Department	8	45	3.43%
Foothills Fire & Rescue Fire Protection District	9	43	3.27%
Inter-Canyon Fire Protection District	9	43	3.27%
Holyoke Fire Protection District	10	42	3.20%

### Affiliated Local Plans continued

Employer	Rank	Covered Active Members as of 12/31/2013	Percentage of Total Plan
South Adams County Fire Protection District (Volunteer)	1	107	2.87%
Evergreen Fire (Volunteer)	2	84	2.26%
Durango Fire & Rescue Authority (Volunteer)	3	76	2.04%
Telluride Fire Protection District (Volunteer)	4	59	1.58%
Carbondale and Rural Fire Protection District (Volunteer)	5	57	1.53%
Florence Fire Protection District (Volunteer)	5	57	1.53%
Golden Volunteer Fire Department	6	54	1.45%
Eaton Fire Protection District (Volunteer)	7	52	1.40%
Wellington Fire Protection District (Volunteer)	8	46	1.23%
Windsor Severance Fire Protection District (Volunteer)	9	45	1.21%
Elk Creek Fire Protection District (Volunteer)	9	45	1.21%
Holyoke Fire Protection District (Volunteer)	9	45	1.21%
Lyons Fire Protection District (Volunteer)	10	44	1.18%
Foothills Fire & Rescue Fire Protection District (Volunteer)	10	44	1.18%

		<b>Covered Active Members</b>	Percentage of
Employer	Rank	as of 12/31/2012	Total Plan
South Adams County Fire Protection District (Volunteer)	1	111	2.65%
Durango Fire & Rescue Authority (Volunteer)	2	104	2.48%
Golden Volunteer Fire Department	3	100	2.39%
Evergreen Fire (Volunteer)	4	88	2.10%
Wellington Fire Protection District (Volunteer)	5	74	1.77%
Elk Creek Fire Protection District (Volunteer)	6	64	1.53%
Bennet Fire Protection District (Volunteer)	7	62	1.48%
Telluride Fire Protection District (Volunteer)	8	61	1.46%
Florence Fire Protection District (Volunteer)	9	60	1.43%
Carbondale and Rural Fire Protection District (Volunteer)	10	55	1.31%

		<b>Covered Active Members</b>	Percentage of
Employer	Rank	as of 12/31/2011	Total Plan
Durango Fire & Rescue Authority (Volunteer)	1	96	2.36%
Golden Volunteer Fire Department	2	93	2.28%
Evergreen Fire (Volunteer)	3	89	2.18%
South Adams County Fire Protection District (Volunteer)	4	88	2.16%
Elk Creek Fire Protection District (Volunteer)	5	66	1.62%
Bennet Fire Protection District (Volunteer)	6	62	1.52%
Telluride Fire Protection District (Volunteer)	6	62	1.52%
Carbondale and Rural Fire Protection District (Volunteer)	7	55	1.35%
Wellington Fire Protection District (Volunteer)	8	53	1.30%
Divide Fire (Volunteer)	9	52	1.28%
Florence Fire Protection District (Volunteer)	10	51	1.25%

#### **Principal Participating Employers** continued

#### Affiliated Local Plans continued

Employer	Rank	Covered Active Members as of 12/31/2010	Percentage of Total Plan
Golden Volunteer Fire Department	1	94	2.31%
Durango Fire & Rescue Authority (Volunteer)	2	89	2.18%
South Adams County Fire Protection District (Volunteer)	3	86	2.11%
Bennet Fire Protection District (Volunteer)	4	63	1.55%
Evergreen Fire (Volunteer)	4	63	1.55%
Foothills Fire Protection District (Volunteer)	4	63	1.55%
Telluride Fire Protection District (Volunteer)	4	63	1.55%
Larkspur Fire Protection District (Volunteer)	5	55	1.35%
Carbondale and Rural Fire Protection District (Volunteer)	6	52	1.28%
Florence Fire Protection District (Volunteer)	7	51	1.25%
Palmer Lake Fire (Volunteer)	8	46	1.13%
Denver Fire Old Hire Fire DROP	9	44	1.08%
Divide Fire (Volunteer)	10	43	1.06%

		<b>Covered Active Members</b>	Percentage of
Employer	Rank	as of 12/31/2009	<b>Total Plan</b>
Durango Fire & Rescue Authority (Volunteer)	1	92	2.31%
Golden Volunteer Fire Department	2	88	2.21%
South Adams County Fire Protection District (Volunteer)	3	66	1.66%
Bennet Fire Protection District (Volunteer)	4	65	1.63%
Evergreen Fire (Volunteer)	5	64	1.61%
Telluride Fire Protection District (Volunteer)	6	63	1.58%
Forence Fire Protection District (Volunteer)	7	57	1.43%
Carbondale and Rural Fire Protection District (Volunteer)	8	56	1.41%
Larkspur Fire Protection District (Volunteer)	9	55	1.38%
Foothills Fire Protection District (Volunteer)	10	48	1.20%

		<b>Covered Active Members</b>	Percentage of
Employer	Rank	as of 12/31/2008	Total Plan
Durango Fire & Rescue Authority (Volunteer)	1	107	2.39%
South Adams County Fire Protection District (Volunteer)	2	94	2.10%
Evergreen Fire (Volunteer)	3	86	1.92%
Golden Volunteer Fire Department	4	82	1.83%
Forence Fire Protection District (Volunteer)	5	77	1.72%
Mountain View Fire Protection District (Volunteer)	6	68	1.52%
Evans Volunteer Fire Department	7	62	1.38%
Telluride Fire Protection District (Volunteer)	8	61	1.36%
Lafayette Fire (Volunteer)	9	60	1.34%
Inter-Canyon Fire Protection District (Volunteer)	10	54	1.21%
Larkspur Fire Protection District (Volunteer)	10	54	1.21%

#### Affiliated Local Plans continued

Employer	Rank	Covered Active Members as of 12/31/2007	Percentage of Total Plan
Durango Fire & Rescue Authority (Volunteer)	1	108	2.39%
Evergreen Fire (Volunteer)	2	86	1.91%
Golden Volunteer Fire Department	3	83	1.84%
Forence Fire Protection District (Volunteer)	4	74	1.64%
South Adams County Fire Protection District (Volunteer)	5	73	1.62%
Evans Volunteer Fire Department	6	64	1.42%
Mountain View Fire Protection District (Volunteer)	6	64	1.42%
Telluride Fire Protection District (Volunteer)	7	63	1.40%
Denver Fire Old Hire Fire DROP	8	59	1.31%
Platte Canyon Fire Protection District (Volunteer)	9	54	1.20%
Wellington Fire Protection District (Volunteer)	9	54	1.20%
Inter-Canyon Fire Protection District (Volunteer)	10	50	1.11%
Northwest Conejos County Fire Protection District (Volunteer)	10	50	1.11%

Note: Many of the plans in this group are closed plans and do not have active members.

### Statewide Death & Disability Plan

	Rank	Covered Active Members	Percentage of
Employer		as of 12/31/2016	<b>Total Plan</b>
Denver Police	1	1,393	11.59%
Denver Fire	2	888	7.39%
Aurora Police	3	694	5.77%
Colorado Springs Police	4	642	5.34%
Colorado Springs Fire	5	386	3.21%
Aurora Fire	6	329	2.74%
West Metro Fire Protection District	7	313	2.60%
South Metro Fire Rescue	7	313	2.60%
Fort Collins Police	8	236	1.96%
Thornton Police	9	213	1.77%
Pueblo Police	10	188	1.56%

		Covered Active Members	Percentage of
Employer	Rank	as of 12/31/2015	Total Plan
Denver Police	1	1,372	11.75%
Denver Fire	2	873	7.47%
Aurora Police	3	669	5.73%
Colorado Springs Police	4	652	5.58%
Colorado Springs Fire	5	387	3.31%
Aurora Fire	6	307	2.63%
South Metro Fire Rescue	6	307	2.63%
West Metro Fire Protection District	7	257	2.20%
Fort Collins Police	8	231	1.98%
Pueblo Police	9	182	1.56%
Boulder Police	10	178	1.52%

**Principal Participating Employers** continued

## Statewide Death & Disability Plan continued

		<b>Covered Active Members</b>	Percentage of
Employer	Rank	as of 12/31/2014	Total Plan
Denver Police	1	1,342	20.10%
Denver Fire	2	829	12.42%
Aurora Police	3	681	10.20%
Colorado Springs Police	4	620	9.29%
Colorado Springs Fire	5	393	5.89%
West Metro Fire Protection District	6	309	4.63%
South Metro Fire Rescue	7	306	4.58%
Aurora Fire	8	288	4.31%
Fort Collins Police	9	228	3.42%
Pueblo Police	10	182	2.73%

		<b>Covered Active Members</b>	Percentage of
Employer	Rank	as of 12/31/2013	Total Plan
Denver Police	1	1,321	11.65%
Denver Fire	2	836	7.37%
Aurora Police	3	669	5.90%
Colorado Springs Police	4	618	5.45%
Colorado Springs Fire	5	389	3.43%
West Metro Fire Protection District	6	321	2.83%
South Metro Fire Rescue	7	310	2.73%
Aurora Fire	8	285	2.51%
Fort Collins Police	9	234	2.06%
Boulder Police	10	172	1.52%

		<b>Covered Active Members</b>	Percentage of
Employer	Rank	as of 12/31/2012	Total Plan
Denver Police	1	1,280	11.56%
Denver Fire	2	832	7.51%
Aurora Police	3	672	6.07%
Colorado Springs Police	4	600	5.42%
Colorado Springs Fire	5	366	3.30%
West Metro Fire Protection District	6	321	2.90%
South Metro Fire Rescue	7	314	2.83%
Aurora Fire	8	291	2.63%
Fort Collins Police	9	219	1.98%
Pueblo Police	10	174	1.57%
Boulder Police	10	174	1.57%

### Statewide Death & Disability Plan continued

		<b>Covered Active Members</b>	Percentage of
Employer	Rank	as of 12/31/2011	Total Plan
Denver Police	1	1,323	12.07%
Denver Fire	2	831	7.58%
Aurora Police	3	665	6.07%
Colorado Springs Police	4	575	5.25%
Colorado Springs Fire	5	354	3.23%
West Metro Fire Protection District	6	327	2.98%
South Metro Fire Rescue	7	306	2.79%
Aurora Fire	8	288	2.63%
Fort Collins Police	9	208	1.90%
Pueblo Police	10	187	1.71%

		<b>Covered Active Members</b>	Percentage of
Employer	Rank	as of 12/31/2010	<b>Total Plan</b>
Denver Police	1	1,384	12.69%
Denver Fire	2	814	7.47%
Aurora Police	3	631	5.79%
Colorado Springs Police	4	571	5.24%
Colorado Springs Fire	5	351	3.22%
West Metro Fire Protection District	6	329	3.02%
South Metro Fire Rescue	7	312	2.86%
Aurora Fire	8	301	2.76%
Pueblo Police	9	195	1.79%
Fort Collins Police	10	188	1.72%

		<b>Covered Active Members</b>	Percentage of
Employer	Rank	as of 12/31/2009	Total Plan
Denver Police	1	1,427	12.88%
Denver Fire	2	842	7.60%
Aurora Police	3	632	5.71%
Colorado Springs Police	4	612	5.52%
Colorado Springs Fire	5	384	3.47%
West Metro Fire Protection District	6	330	2.98%
South Metro Fire Rescue	7	324	2.92%
Aurora Fire	8	294	2.65%
Pueblo Police	9	192	1.73%
Fort Collins Police	10	189	1.71%

### **Statistical Section** • Operating Information continued

#### **Principal Participating Employers** *continued*

## Statewide Death & Disability Plan continued

		<b>Covered Active Members</b>	Percentage of
Employer	Rank	as of 12/31/2008	Total Plan
Denver Police	1	1,472	13.16%
Denver Fire	2	865	7.73%
Aurora Police	3	629	5.62%
Colorado Springs Police	4	619	5.53%
Colorado Springs Fire	5	402	3.59%
South Metro Fire Rescue	6	329	2.94%
West Metro Fire Protection District	7	325	2.90%
Aurora Fire	8	289	2.58%
Pueblo Police	9	185	1.65%
Fort Collins Police	10	182	1.63%

Employer		<b>Covered Active Members</b>	Percentage of
	Rank	as of 12/31/2007	Total Plan
Denver Police	1	1,455	12.97%
Denver Fire	2	805	7.17%
Aurora Police	3	696	6.20%
Colorado Springs Police	4	616	5.49%
Colorado Springs Fire	5	420	3.74%
Aurora Fire	6	306	2.73%
Pueblo Police	7	179	1.60%
Thornton Police	8	158	1.41%
Poudre Fire Authority	9	153	1.36%
Greeley Police	10	152	1.35%

### **Defined Benefit System** | Statewide Defined Benefit Plan

Employer	Rank	Covered Active Members as of 12/31/2016	Percentage of Total Plan
Denver Police	1	1.547	19.53%
Denver Fire	2	1 002	12.65%
Colorado Springs Police	3	354	4.47%
Aurora Fire	4	316	3.99%
Colorado Springs Fire	5	297	3.75%
Pueblo Police	6	208	2.63%
West Metro Fire Protection District	7	176	2.22%
Arvada Fire Protection District	8	162	2.05%
Littleton Fire	9	149	1.88%
Pueblo Fire	10	139	1.76%

### **Defined Benefit System** | Statewide Defined Benefit Plan continued

		<b>Covered Active Members</b>	Percentage of
Employer	Rank	as of 12/31/2015	Total Plan
Denver Police	1	1,539	20.38%
Denver Fire	2	985	13.05%
Colorado Springs Police	3	332	4.40%
Aurora Fire	4	283	3.75%
Colorado Springs Fire	5	271	3.59%
Pueblo Police	6	202	2.68%
Arvada Fire Protection District	7	157	2.08%
Pueblo Fire	8	138	1.83%
Littleton Fire	9	134	1.77%
Westminster Fire	10	117	1.55%

Employer		<b>Covered Active Members</b>	Percentage of
	Rank	as of 12/31/2014	Total Plan
Denver Police	1	1,506	21.24%
Denver Fire	2	935	13.19%
Colorado Springs Fire	3	257	3.63%
Colorado Springs Police	4	255	3.60%
Aurora Fire	5	253	3.57%
Pueblo Police	6	199	2.81%
Arvada Fire Protection District	7	147	2.07%
Pueblo Fire	8	138	1.95%
Littleton Fire	9	124	1.75%
Westminster Fire	10	115	1.62%

Employer		Covered Active Members	Percentage of
	Rank	as of 12/31/2013	Total Plan
Denver Police	1	1,459	21.29%
Denver Fire	2	927	13.53%
Colorado Springs Fire	3	249	3.63%
Aurora Fire	4	247	3.60%
Colorado Springs Police	5	227	3.31%
Pueblo Police	6	192	2.80%
Arvada Fire Protection District	7	145	2.12%
Pueblo Fire	8	128	1.87%
Littleton Fire	9	123	1.79%
West Metro Fire Protection District	10	116	1.69%

**Principal Participating Employers** continued

# Defined Benefit System | Statewide Defined Benefit Plan continued

Employer		<b>Covered Active Members</b>	Percentage of
	Rank	as of 12/31/2012	Total Plan
Denver Police	1	1,406	21.81%
Denver Fire	2	908	14.08%
Aurora Fire	3	245	3.80%
Colorado Springs Fire	4	213	3.30%
Pueblo Police	5	188	2.92%
Colorado Springs Police	6	186	2.88%
Arvada Fire Protection District	7	143	2.22%
Pueblo Fire	8	133	2.06%
Westminster Fire	9	113	1.75%
Littleton Fire	10	110	1.71%

Employer		<b>Covered Active Members</b>	Percentage of
	Rank	as of 12/31/2011	<b>Total Plan</b>
Denver Police	1	1,440	22.96%
Denver Fire	2	903	14.40%
Aurora Fire	3	217	3.46%
Pueblo Police	4	202	3.22%
Colorado Springs Fire	5	195	3.11%
Colorado Springs Police	6	139	2.22%
Pueblo Fire	7	138	2.20%
Arvada Fire Protection District	8	120	1.91%
Littleton Fire	9	113	1.80%
Westminster Fire	10	110	1.75%

		<b>Covered Active Members</b>	Percentage of
Employer	Rank	as of 12/31/2010	Total Plan
Denver Police	1	1,470	25.35%
Denver Fire	2	867	14.95%
Pueblo Police	3	200	3.45%
Pueblo Fire	4	142	2.45%
Littleton Fire	5	111	1.91%
Westminster Fire	6	110	1.90%
Colorado Springs Police	7	104	1.79%
Arvada Fire Protection District	8	100	1.72%
West Metro Fire Protection District	9	99	1.71%
Greeley Fire	10	98	1.69%

# **Defined Benefit System** | Statewide Defined Benefit Plan continued

		<b>Covered Active Members</b>	Percentage of
Employer	Rank	as of 12/31/2009	Total Plan
Denver Police	1	1,459	25.72%
Denver Fire	2	843	14.86%
Pueblo Police	3	191	3.37%
Pueblo Fire	4	127	2.24%
Colorado Springs Police	5	111	1.96%
Westminster Fire	5	111	1.96%
Littleton Fire	6	104	1.83%
Arvada Fire Protection District	7	100	1.76%
Colorado Springs Fire	8	95	1.67%
Union Colony Fire Rescue	9	93	1.64%
West Metro Fire Protection District	9	93	1.64%
North Metro Fire Rescue	10	90	1.59%

	Rank	Covered Active Members	Percentage of
Employer		as of 12/31/2008	Total Plan
Denver Police	1	1,503	27.18%
Denver Fire	2	857	15.50%
Pueblo Police	3	185	3.35%
Pueblo Fire	4	121	2.19%
Westminster Fire	5	113	2.04%
North Metro Fire Rescue	6	105	1.90%
Union Colony Fire Rescue	7	101	1.83%
Arvada Fire Protection District	8	98	1.77%
Colorado Springs Fire	8	98	1.77%
West Metro Fire Protection District	9	94	1.70%
Colorado Springs Police	10	92	1.66%

		<b>Covered Active Members</b>	Percentage of
Employer	Rank	as of 12/31/2007	Total Plan
Denver Police	1	1,455	29.08%
Denver Fire	2	805	16.09%
Pueblo Police	3	179	3.58%
Pueblo Fire	4	124	2.48%
Westminster Fire	5	110	2.20%
Colorado Springs Fire	6	100	2.00%
Arvada Fire Protection District	7	94	1.88%
Union Colony Fire Rescue	8	93	1.86%
North Metro Fire Rescue	9	88	1.76%
West Metro Fire Protection District	10	75	1.50%

## **Statistical Section Operating Information** *continued*

### **Principal Participating Employers** continued

## Defined Benefit System | Statewide Hybrid Plan

Employer	Rank	Covered Active Members as of 12/31/2016	Percentage of Total Plan
West Metro Fire Protection District	1	167	47.31%
Aurora Fire	2	54	15.30%
Evans Police	3	34	9.63%
Littleton Fire	4	21	5.95%
Westminster Fire	5	12	3.40%
Canon City Police	6	9	2.55%
North Metro Fire Rescue	7	8	2.27%
Lafayette Police	8	7	1.98%
Lake Dillon Fire Protection District	8	7	1.98%
Snowmass Wildcat Fire Protection District	9	5	1.42%
Englewood Police	10	4	1.13%

Employer	Rank	<b>Covered Active Members</b>	Percentage of
		as of 12/31/2015	Total Plan
West Metro Fire Protection District	1	174	47.28%
Aurora Fire	2	57	15.49%
Evans Police	3	33	8.97%
Littleton Fire	4	22	5.98%
Westminster Fire	5	13	3.53%
Canon City Police	6	9	2.45%
North Metro Fire Rescue	6	9	2.45%
Lafayette Police	7	7	1.90%
Lake Dillon Fire Protection District	7	7	1.90%
Snowmass Wildcat Fire Protection District	8	5	1.36%
Englewood Police	8	5	1.36%
Sheridan Police	9	4	1.09%
Trinidad Fire	10	3	0.82%

Employer		<b>Covered Active Members</b>	Percentage of
	Rank	as of 12/31/2014	Total Plan
West Metro Fire Protection District	1	216	50.82%
Aurora Fire	2	63	14.82%
Evans Police	3	30	7.06%
Littleton Fire	4	24	5.65%
Westminster Fire	5	16	3.76%
Canon City Police	6	11	2.59%
North Metro Fire Rescue	7	10	2.35%
Lafayette Police	7	10	2.35%
Lake Dillon Fire Protection District	8	8	1.88%
Snowmass Wildcat Fire Protection District	9	5	1.18%
Englewood Police	9	5	1.18%
Sheridan Police	10	4	0.94%
Trinidad Fire	10	4	0.94%

## **Defined Benefit System** | Statewide Hybrid Plan *continued*

		Covered Active Members	Percentage of
Employer	Rank	as of 12/31/2013	Total Plan
West Metro Fire Protection District	1	241	52.16%
Aurora Fire	2	68	14.72%
Evans Police	3	29	6.28%
Littleton Fire	4	25	5.41%
Westminster Fire	5	18	3.90%
Canon City Police	6	12	2.60%
North Metro Fire Rescue	7	12	2.60%
Lafayette Police	7	10	2.16%
Lake Dillon Fire Protection District	8	8	1.73%
Englewood Police	9	5	1.08%
Snowmass Wildcat Fire Protection District	9	5	1.08%
Sheridan Police	10	4	0.87%
Trinidad Fire	10	4	0.87%

Employer		Covered Active Members	Percentage of Total Plan
	Rank	as of 12/31/2012	
West Metro Fire Protection District	1	249	52.75%
Aurora Fire	2	69	14.62%
Littleton Fire	3	29	6.14%
Evans Police	4	26	5.51%
Westminster Fire	5	18	3.81%
Canon City Police	6	14	2.97%
North Metro Fire Rescue	7	11	2.33%
Lafayette Police	8	10	2.12%
Lake Dillon Fire Protection District	9	8	1.69%
Snowmass Wildcat Fire Protection District	10	6	1.27%

		<b>Covered Active Members</b>	Percentage of
Employer	Rank	as of 12/31/2011	Total Plan
West Metro Fire Protection District	1	256	53.44%
Aurora Fire	2	72	15.03%
Littleton Fire	3	29	6.05%
Evans Police	4	24	5.01%
Westminster Fire	5	19	3.97%
Canon City Police	6	15	3.13%
North Metro Fire Rescue	7	11	2.30%
Lafayette Police	8	10	2.09%
Lake Dillon Fire Protection District	9	8	1.67%
Snowmass Wildcat Fire Protection District	10	6	1.25%

### **Principal Participating Employers** continued

## **Defined Benefit System** | Statewide Hybrid Plan *continued*

		<b>Covered Active Members</b>	Percentage of
Employer	Rank	as of 12/31/2010	Total Plan
West Metro Fire Protection District	1	252	62.22%
Littleton Fire	2	29	7.16%
Evans Police	3	25	6.17%
Westminster Fire	4	21	5.19%
Canon City Police	5	18	4.44%
North Metro Fire Rescue	6	12	2.96%
Lafayette Police	7	10	2.47%
Lake Dillon Fire Protection District	8	8	1.98%
Snowmass Wildcat Fire Protection District	9	6	1.48%
Brighton Police	10	4	0.99%
Trinidad Fire	10	4	0.99%

Employer		<b>Covered Active Members</b>	Percentage of Total Plan
	Rank	as of 12/31/2009	
West Metro Fire Protection District	1	261	62.00%
Littleton Fire	2	30	7.13%
Evans Police	3	27	6.41%
Westminster Fire	4	21	4.99%
Canon City Police	5	19	4.51%
North Metro Fire Rescue	6	16	3.80%
Lafayette Police	7	10	2.38%
Lake Dillon Fire Protection District	8	8	1.90%
Snowmass Wildcat Fire Protection District	9	6	1.43%
Brighton Police	10	4	0.95%
Trinidad Fire	10	4	0.95%

Employer	Rank	Covered Active Members	Percentage of
		as of 12/31/2008	Total Plan
West Metro Fire Protection District	1	238	65.21%
Evans Police	2	27	7.40%
Westminster Fire	3	22	6.03%
Canon City Police	4	19	5.21%
North Metro Fire Rescue	5	14	3.84%
Lafayette Police	6	10	2.74%
Lake Dillon Fire Protection District	7	8	2.19%
Snowmass Wildcat Fire Protection District	8	6	1.64%
Brighton Police	9	4	1.10%
Trinidad Fire	9	4	1.10%
Federal Heights Police	10	3	0.82%

### **Defined Benefit System** | Statewide Hybrid Plan *continued*

Employer	Rank	<b>Covered Active Members</b>	Percentage of
		as of 12/31/2007	Total Plan
West Metro Fire Protection District	1	31	30.39%
Evans Police	2	20	19.61%
Westminster Fire	3	13	12.75%
Canon City Police	4	9	8.82%
Lafayette Police	4	9	8.82%
Lake Dillon Fire Protection District	5	6	5.88%
Trinidad Fire	6	5	4.90%
Brighton Police	7	2	1.96%
North Metro Fire Rescue	7	2	1.96%
Federal Heights Police	8	1	0.98%
Federal Heights Fire	8	1	0.98%
Milliken Police	8	1	0.98%
Montrose Fire Protection District	8	1	0.98%
Union Colony Fire Rescue	8	1	0.98%

## Fire & Police Members' Statewide Money Purchase Plan

	Rank	<b>Covered Active Members</b>	Percentage of
Employer		as of 12/31/2016	Total Plan
Colorado River Fire Protection District	1	19	15.20%
Elizabeth Fire Protection District	2	17	13.60%
Grand Valley Fire Protection District	2	17	13.60%
Windsor Severance Fire Protection District	2	17	13.60%
Eaton Fire Protection District	3	8	6.40%
Mountain Village Police	4	5	4.00%
West Routt Fire Protection District	4	5	4.00%
Sable-Altura Fire Protection District	5	4	3.20%
Upper Pine River Fire Protection District	5	4	3.20%
Jefferson-Como Fire Protection District	6	3	2.40%
Fairmount Fire Protection District	7	2	1.60%

Employer		<b>Covered Active Members</b>	Percentage of
	Rank	as of 12/31/2015	Total Plan
Colorado River Fire Protection District	1	21	15.79%
Elizabeth Fire Protection District	2	17	12.78%
Grand Valley Fire Protection District	2	17	12.78%
Windsor Severance Fire Protection District	3	15	11.28%
Eaton Fire Protection District	4	9	6.77%
Upper Pine River Fire Protection District	5	8	6.02%
Central City Police	6	6	4.51%
Mountain Village Police	7	5	3.76%
West Routt Fire Protection District	7	5	3.76%
Sable-Altura Fire Protection District	8	4	3.01%
Jefferson-Como Fire Protection District	9	3	2.26%
Fairmount Fire Protection District	10	2	1.50%

### **Principal Participating Employers** continued

## Fire & Police Members' Statewide Money Purchase Plan continued

Employer	Rank	<b>Covered Active Members</b>	Percentage of
		as of 12/31/2014	Total Plan
Colorado River Fire Protection District	1	37	20.67%
Windsor Severance Fire Protection District	2	23	12.85%
Elizabeth Fire Protection District	3	19	10.61%
Grand Valley Fire Protection District	3	19	10.61%
Eaton Fire Protection District	4	15	8.38%
Central City Police	5	11	6.15%
Mountain Village Police	6	9	5.03%
West Routt Fire Protection District	7	6	3.35%
Sable-Altura Fire Protection District	8	5	2.79%
Jefferson-Como Fire Protection District	9	3	1.68%
Southern Park County Fire Protection District	10	2	1.12%
Elizabeth Police	10	2	1.12%
Lone Tree Police	10	2	1.12%
Fairmount Fire Protection District	10	2	1.12%
Colorado Centre Metro District Fire	10	2	1.12%

Employer	Rank	Covered Active Members as of 12/31/2013	Percentage of Total Plan
Colorado River Fire Rescue Authority	1 1	as 01 12/31/2013	20.78%
	l	32	20.,070
Elizabeth Fire Protection District	2	17	11.04%
Eaton Fire Protection District	2	17	11.04%
Rifle Fire Protection District	3	15	9.74%
Grand Valley Fire Protection District	4	14	9.09%
Windsor Severance Fire Protection District	5	12	7.79%
Central City Police	6	7	4.55%
Mountain Village Police	7	6	3.90%
West Routt Fire Protection District	8	5	3.25%
Sable-Altura Fire Protection District	9	4	2.60%
Fairmount Fire Protection District	10	2	1.30%
Lone Tree Police	10	2	1.30%
Jefferson-Como Fire Protection District	10	2	1.30%

		Covered Active Members	Percentage of
Employer	Rank	as of 12/31/2012	Total Plan
Rifle Fire Protection District	1	46	28.57%
Eaton Fire Protection District	2	20	12.42%
Elizabeth Fire Protection District	3	16	9.94%
Windsor Severance Fire Protection District	4	15	9.32%
Grand Valley Fire Protection District	4	15	9.32%
West Routt Fire Protection District	5	6	3.73%
Mountain Village Police	5	6	3.73%
Central City Police	5	6	3.73%
Sable-Altura Fire Protection District	6	4	2.48%
Jefferson-Como Fire Protection District	7	3	1.86%
Genesee Fire Protection District	8	2	1.24%

# Fire & Police Members' Statewide Money Purchase Plan continued

		<b>Covered Active Members</b>	Percentage of	
Employer	Rank	as of 12/31/2011	Total Plan	
Rifle Fire Protection District	1	33	26.40%	
Eaton Fire Protection District	2	16	12.80%	
Elizabeth Fire Protection District	3	15	12.00%	
Windsor Severance Fire Protection District	4	11	8.80%	
Mountain Village Police	5	7	5.60%	
Central City Police	6	5	4.00%	
Sable-Altura Fire Protection District	7	4	3.20%	
West Routt Fire Protection District	7	4	3.20%	
Jefferson-Como Fire Protection District	8	3	2.40%	
Colorado Springs Police	9	2	1.60%	

		Covered Active Members	Percentage of	
Employer	Rank	as of 12/31/2010	Total Plan	
Rifle Fire Protection District	1	29	27.88%	
Eaton Fire Protection District	2	16	15.38%	
Elizabeth Fire Protection District	3	15	14.42%	
Sable-Altura Fire Protection District	4	8	7.69%	
Mountain Village Police	5	6	5.77%	
Central City Police	6	4	3.85%	
West Routt Fire Protection District	7	2	1.92%	

		Covered Active Members	Percentage of
Employer	Rank	as of 12/31/2009	Total Plan
Rifle Fire Protection District	1	25	27.47%
Eaton Fire Protection District	2	17	18.68%
Elizabeth Fire Protection District	3	15	16.48%
Mountain Village Police	4	7	7.69%
Central City Police	5	4	4.40%
West Routt Fire Protection District	6	2	2.20%

		Covered Active Members	Percentage of
Employer	Rank	as of 12/31/2008	Total Plan
Rifle Fire Protection District	1	32	31.68%
Eaton Fire Protection District	2	19	18.81%
Elizabeth Fire Protection District	3	16	15.84%
Mountain Village Police	4	8	7.92%
Central City Police	5	4	3.96%
Colorado Springs Police	6	3	2.97%

		<b>Covered Active Members</b>	Percentage of
Employer	Rank	as of 12/31/2007	Total Plan
Eaton Fire Protection District	1	19	27.54%
Elizabeth Fire Protection District	2	17	24.64%
Mountain Village Police	3	7	10.14%
Central City Police	4	6	8.70%
Upper Pine River Fire Protection District	5	2	2.90%
West Routt Fire Protection District	6	2	2.90%

### **Principal Participating Employers** continued

#### **Defined Benefit System** | Colorado Springs New Hire Pension Plar

Employer	Rank	Covered Active Members as of 12/31/2016	Percentage of Total Plan
Colorado Springs Police	1	370	71.15%
Colorado Springs Fire	2	150	28.85%
		12/31/2015	
Colorado Springs Police	1	394	71.25%
Colorado Springs Fire	2	159	28.75%
		12/31/2014	
Colorado Springs Police	1	425	71.67%
Colorado Springs Fire	2	168	28.33%
		12/31/2013	
Colorado Springs Police	1	446	70.79%
Colorado Springs Fire	2	184	29.21%
		12/31/2012	
Colorado Springs Police	1	470	71.00%
Colorado Springs Fire	2	192	29.00%
		12/31/2011	
Colorado Springs Police	1	493	70.73%
Colorado Springs Fire	2	204	29.27%
		12/31/2010	
Colorado Springs Police	1	522	63.27%
Colorado Springs Fire	2	303	36.73%
		12/31/2009	
Colorado Springs Police	1	512	63.92%
Colorado Springs Fire	2	289	36.08%
		12/31/2008	
Colorado Springs Police	1	539	63.71%
Colorado Springs Fire	2	307	36.29%
		12/31/2007	
Colorado Springs Police	1	564	63.87%
Colorado Springs Fire	2	319	36.13%

### **Employers of Affiliated Local Volunteer Firefighters Plans**

Adams County
(North Washington) FPD\*
Alamosa County FPD
Alamosa Fire
Allenspark FPD
Aspen FPD
Ault FPD
Basalt & Rural FPD
Bennett FPD #7
Berthoud FPD

Big Thompson Canyon Fire Black Forest Fire Rescue

Blanca Fire\* Boone Fire

Big Sandy FPD

Boulder Mountain FPD Boulder Rural FPD Brighton VFD\* Brush Combined Fire Buena Vista Fire Calhan FPD

Cañon City Area FPD Carbondale & Rural FPD

Cascade FPD
Castle Rock Fire
Central City VFD

Central Orchard Mesa FPD Cheyenne County FPD #1 Clear Creek Fire Authority

Clifton FPD

Coal Creek Canyon FPD

Colorado River (Burning Mountains) FPD\* Colorado River (Rifle) FPD Crested Butte FPD Cripple Creek Fire\*

Crowley VFD
Crystal Lakes FPD
Divide VFD

Donald Wescott FPD Dove Creek FPD Durango FPD Eads Fire

East Grand FPD #4 Eaton FPD Eckley Fire Elbert FPD & Rescue Elizabeth FPD\* Elk Creek FPD Englewood Fire\* Evans FPD Evergreen FPD Falcon FPD\* Federal Heights Fire Fisher's Peak FPD

Federal Heights Fire
Fisher's Peak FPD
Florence FPD
Foothills Fire & Rescue
Fort Lewis Mesa FPD

Fort Morgan Fire Fort Morgan Rural FPD Franktown FPD

Frederick Firestone FPD\*

Galeton FPD Genesee FPD Glacier View FPD Glendale Fire\*

Glenwood Springs Fire Golden Fire

Golden Gate FPD Grand FPD #1 Grand Lake FPD Grand Valley FPD

Green Mountain Falls-Chipita Park FPD Gypsum FPD

Hartsel FPD Haxtun Fire Hillrose Rural FPD Holyoke Fire Holyoke FPD

Hot Sulphur Springs/Parshall FPD Hygiene FPD Indian Hills FPD Inter-Canyon FPD Jackson 105 FPD

Jefferson-Como FPD

Kiowa FPD Kremmling FPD La Junta Fire La Salle FPD Lafayette Fire\* Lake City Area FPD Lake Dillon FPD\* Lake George FPD Lamar Fire Larkspur FPD

Lefthand FPD Lewis-Arriola FPD Limon Area FPD Livermore FPD

Log Hill Mesa FPD Loveland & Rural Consolidated VFD\* Lower Valley FPD Lyons FPD

Mancos FPD
Manitou Springs VFD

Manzanola Rural FPD Milliken FPD\* Montrose FPD Mountain View FPD Nederland FPD

New Raymer/Stoneham FPD

North Fork FPD

North Routt County Fire Northeast Teller County FPD

Northeast Teller Count North-West FPD Northwest Conejos County FPD Norwood FPD Nucla-Naturita FPD Nunn FPD Oak Creek FPD Olathe FPD

Olney Springs Fire Ordway Fire Ouray VFD Palisade VFD Palmer Lake Fire Parker FPD\*

Peetz FPD

Peyton FPD Pinewood Springs VFD Plateau Valley FPD Platte Canyon FPD

Platte Valley FPD

Platteville/Gilcrest FPD Pleasant View

Metro Fire District
Poudre Canyon FPD
Poudre Fire Authority
Rangely Rural FPD
Rattlesnake FPD
Red Feather Lakes FPD

Red, White & Blue FPD\* Ridgway FPD Rio Blanco FPD Rocky Ford Fire Rocky Mountain VFD Sable-Altura FPD Sheridan Fire\*

Silverton San Juan FRA
South Adams County FPD
South Arkansas FPD\*
South Conejos FPD
South Metro Fire Rescue\*
Southwest Washington

County FPD Springfield Fire

Sterling Fire

Steamboat Springs VFD

Stonewall FPD
Stratton FPD
Sugar City Fire
Sugarloaf FPD
Telluride FPD
Timberline FPD
Walsh VFD
Wellington FPD
West Cheyenne FPD
West Douglas County FPD
West Metro FPD\*

West Metro FPD\*
West Routt FPD
Westminster VFD\*
Wet Mountain FPD
Wiggins Rural FPD
Wiley Rural FPD
Windsor Severance FPD

Yampa FPD

Yuma Fire

#### Employers of Defined Benefit System | Colorado Springs New Hire Pension Plan

Colorado Springs Fire Colorado Springs Police

<sup>\*</sup> No active members at 12/31/16

#### **Employers** continued

### **Employers of Affiliated Local "Old Hire" Plans**

Adams County
(North Washington) FPD\*
Aurora Fire
Aurora Police
Bancroft FPD\*
Bow Mar Police\*
Cañon City Area FPD\*
Cedaredge Police\*
Cherry Hills FPD\*
Colorado Springs Fire\*
Colorado Springs Police\*
Cortez Police\*

Denver Fire
Denver Police
Durango Fire\*
Durango Police\*
Englewood Fire\*
Englewood Police\*
Fort Morgan Police\*
Grand Junction Fire\*
Grand Junction Police\*
Greeley Police\*
Greeley (Union Colony) Fire\*

La Salle Police
Lakewood FPD\*
Lamar Fire\*
Las Animas Police\*
Leadville Fire\*
Loveland Fire\*
Manitou Springs Fire\*
Montrose FPD\*
Mountain View FPD\*
Pueblo Fire
Pueblo Police\*
Pueblo Rural FPD\*

La Junta Police\*

Red, White & Blue FPD\*
Rocky Ford Police\*
Salida Fire\*
Salida Police\*
South Adams County FPD\*
Springfield Police\*
Sterling Fire\*
Sterling Police\*
Thornton Fire
Trinidad Fire\*
Trinidad Police\*

### **Employers of Affiliated Statewide Defined Benefit Supplemental Social Security Plans**

Akron Police\* Cedaredge Police\* Debeque Police

Del Norte Police\*

Frederick Police Haxtun Police Holyoke Police

Haxtun Police\*

La Junta Fire\*

Johnstown Police Kremmling Police Springfield Police Windsor Police

#### **Employers Participating in the FPPA's 457 Deferred Compensation Plan**

Adams County FPD
Alamosa Police\*
Arvada FPD
Arvada Police
Ault Police
Aurora Fire
Aurora Police
Basalt & Rural FPD
Bayfield Police
Bennett FPD # 7
Berthoud FPD
Black Forest Fire Rescue
Boulder Rural FPD

Boulder Rural FPD
Brighton Police
Broadmoor FPD
Brush Police
Buena Vista Police
Cañon City Area FPD
Cañon City Police
Carbondale & Rural FPD
Castle Rock Fire
Chaffee County FPD
Cimarron Hills FPD
Clear Creek Fire Authority\*

Clifton FPD

Colorado River FPD Colorado Springs Fire Colorado Springs Police Columbine Valley Police

Cortez FPD
Crested Butte FPD
Cripple Creek Fire
Cunningham FPD
Debeque FPD
Debeque Police\*
Donald Wescott FPD
Durango FPD

East Grand FPD #4 Eaton FPD Elizabeth FPD Elizabeth Police\* Elk Creek FPD Estes Valley FPD Fairmount FPD Falcon FPD Federal Heights Fire Federal Heights Police Firestone Police Foothills Fire & Rescue Fort Collins Fire\* Fort Collins Police Fort Lewis-Mesa FPD Fort Lupton FPD **FPPA Employees** Frederick-Firestone FPD Front Range FRA

Genesee FPD Glendale Police Granada Police\* Grand FPD #1 Grand Lake FPD Grand Valley FPD Greater Eagle FPD Greeley Fire

Greeley Police Green Mtn Falls-Chipita Park FPD\*

Gypsum FPD Hartsel FPD Holyoke Police Hudson FPD Hugo Police Idaho Springs Police\*

Ignacio Police

Inter-Canyon FPD Jackson 105 FPD Jefferson-Como FPD Kiowa FPD Kremmling FPD

La Jara Police
La Salle FPD
Lake Dillon FPD
Lakeside Police\*
Larkspur FPD
Lefthand FPD\*
Lochbuie Police

Lone Tree Police Los Pinos FPD Loveland FRA Loveland Police Lower Valley FPD Lyons FPD\*

Manitou Springs Fire Manitou Springs Police Montrose FPD

Mountain View FPD Mountain Village Police Nederland FPD

North Metro Fire Rescue

Northeast Teller County FPD
North-West FPD
Pagosa FPD
Palisade Fire
Palisade Police
Plateau Valley FPD\*
Platte Canyon FPD
Platte Valley FPD
Platteville Police
Platteville-Gilcrest FPD
Pleasant View

Metro Fire District

Poudre Fire Authority

Pueblo Fire
Pueblo Police
Pueblo Rural FPD
Red, White & Blue FPD
Rocky Mountain FPD
Sable-Altura FPD
Salida Fire
Salida Police

Snowmass Wildcat FPD South Adams County FPD Southeast Weld FPD Southern Park County FPD\*

Sterling Fire
Sterling Police
Strasburg FPD #8\*
Stratmoor Hills FPD
Stratton Police\*
Telluride FPD
Timberline FPD

Tri-Lakes Monument FPD

Trinidad Fire
Trinidad Police
Upper Pine River FPD
Vail Fire

Vail Fire
Vail Police
Wellington FPD
West Metro FPD
West Routt FPD
Wheat Ridge FPD
Wiggins Police\*
Windsor Severance FPD

Wray Police Yuma Police

<sup>\*</sup> No active members at 12/31/16

### **Employers of the Defined Benefit System** | Statewide Defined Benefit Plan

Adams County FPD Aguilar Police\* Alma Police Antonito Police Arvada FPD Aspen FPD Ault FPD\* **Ault Police** Aurora Fire **Basalt & Rural FPD Basalt Police Bayfield Police** Bennett FPD #7 Berthoud FPD **Beulah Fire Protection &** 

**Ambulance District** Big Sandy FPD Black Forest Fire Rescue Black Hawk Fire Blanca Police **Boulder Mountain** Fire Authority **Boulder Rural FPD** Bow Mar Police\* Brighton (Greater) FPD **Brighton Police Broadmoor FPD** Brush Police

Buena Vista Police Byers FPD #9 Cañon City Police Carbondale & Rural FPD Castle Rock Fire Center Police Central City Fire\* Chaffee County FPD Cimarron Hills FPD Clear Creek Fire Authority Clifton FPD

Coal Creek Canyon FPD Collbran Marshalls Police Colorado Centre Metro District Fire\*

Colorado River FPD Colorado Springs Fire Colorado Springs Police Columbine Valley Police

Copper Mountain Fire Cortez FPD Crested Butte FPD Cripple Creek Fire Cunningham FPD Dacono Police Debeque FPD

Denver Fire Denver Police Dinosaur Police\* **Donald Wescott FPD** Durango FPD Eads Police\*

East Grand FPD #4 Eaton FPD Elizabeth Police Elk Creek FPD **Empire Police Englewood Police** Erie Police Estes Valley FPD

**Evans Police** Evergreen FPD Fairmount FPD Fairplay Marshalls Falcon FPD Federal Heights Fire

**Evans FPD** 

Federal Heights Police Firestone Police Florence Police Florissant FPD\* Foothills Fire & Rescue Fort Lewis-Mesa FPD Fort Lupton FPD Fountain Fire

Frisco Police Front Range FPD Genesee FPD Georgetown Police Gilcrest Police\* Granada Police\* Grand FPD #1

Frederick Firestone FPD

**Fowler Police** 

Franktown FPD

Grand Lake FPD Grand Valley FPD Greater Eagle FPD Greeley Fire

Green Mountain Falls-Chipita Park FPD\*

Gypsum FPD Hartsel FPD **Hudson FPD** Hugo Police Hygiene FPD Idaho Springs Police Ignacio Police Indian Hills FPD Inter-Canyon FPD

Jackson 105 FPD\* Jefferson-Como FPD

Kiowa FPD Kremmling FPD\* La Jara Police La Salle FPD La Salle Police La Veta Police Lafayette Fire Lafayette Police Lake Dillon FPD Lake George FPD\* Lakeside Police Lamar Fire\*

Larkspur FPD Las Animas Police\* Leadville Fire Leadville Police Lefthand FPD Littleton Fire Lochbuie Police Log Lane Village Police

Lone Tree Police Los Pinos FPD Lower Valley FPD Lvons FPD Manassa Police

Manitou Springs Fire Manitou Springs Police Milliken Police Minturn Fire\*

Mountain View FPD Mountain View Police Nederland FPD North Fork Fire

Montrose FPD

North Metro Fire Rescue North Routt FPD

Northeast Teller County FPD

North-West FPD Nunn Police Oak Creek FPD Oak Creek Police Olathe Police Pagosa FPD

Pagosa Springs Police Palisade Fire Palisade Police Palmer Lake Police Paonia Police Parachute Police

Parker Police Plateau Valley FPD Platte Canyon FPD Platte Valley FPD Platteville Police Platteville-Gilcrest FPD

Pleasant View Metro Fire District Pueblo Fire Pueblo Police Pueblo Rural FPD Pueblo West Metro FPD

Rattlesnake FPD Red, White & Blue FPD Rio Blanco FPD

Rocky Mountain FPD

Rye FPD Sable-Altura FPD Salida Fire Salida Police San Luis Police\* Sanford Police Security FPD Sheridan Police Silt Police

Snowmass Wildcat FPD South Adams County FPD

South Fork FPD South Fork Police Southeast Weld FPD Southern Park County FPD Steamboat Springs Fire

Sterling Fire Sterling Police Strasburg FPD #8 Stratmoor Hills FPD Stratton Police Telluride FPD Thornton Fire Timberline FPD

Tri Lakes Monument FPD

Trinidad Fire

Upper Pine River FPD Wellington FPD

West Douglas County FPD

West Metro FPD West Routt FPD Westminster Fire Wiggins Police

Windsor-Severance FPD

Wray Police Yuma Police

\* No active members at 12/31/16 214

# **Statistical Section Operating Information** *continued*

## Benefit and Refund Deductions from Fiduciary Net Position by Type

Affiliated Local Plan	ıs
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Type of Benefit	2016	2015	2014	2013	
Age and service benefits:					
Retirees & Survivors	\$168,257,048	\$165,621,180	\$164,721,406	\$165,121,187	
Disability					
Total Benefits	\$168,257,048	\$165,621,180	\$164,721,406	\$165,121,187	
Type of Refund		<del> </del>		+	
Contributions					
(including interest earned)	\$918,003	\$201,899	\$521,475	\$848,221	
Total Refunds	\$918,003	\$201,899	\$521,475	\$848,221	

<b>Statewide Death &amp; Disability</b>	v Plan
Statewide Death a Disability	,

Type of Benefit	2016	2015	2014	2013	
Age and service benefits:					
Retirees & Survivors					
Disability	26,128,642	\$24,096,515	\$22,707,843	\$21,018,988	
Total Benefits	26,128,642	\$24,096,515	\$22,707,843	\$21,018,988	
Type of Refund					
Contributions					
(including interest earned)	\$59,172		\$12,647	\$32,919	
Total Refunds	\$59,172		\$12,647	\$32,919	

## **Defined Benefit System** | Statewide Defined Benefit Plan

Type of Benefit	2016	2015	2014	2013
Age and service benefits:				
Retirees & Survivors	\$60,019,888	\$53,129,403	\$47,655,798	\$42,442,562
Disability				
Total Benefits	\$60,019,888	\$53,129,403	\$47,655,798	\$42,442,562
Type of Refund			1	
Contributions				
(including interest earned)	\$1,813,180	\$1,763,962	\$1,848,698	\$2,796,217
Total Refunds	\$1,813,180	\$1,763,962	\$1,848,698	\$2,796,217

2012	2011	2010	2009	2008	2007
\$165,552,566	\$162,511,376	\$164,220,145	\$157,644,750	\$152,270,531	\$146,375,432
\$165,552,566	\$162,511,376	\$164,220,145	\$157,644,750	\$152,270,531	\$146,375,432
			·		
\$315,017	\$584,749	¢1 022 002	\$5.045.022	\$2.059.290	\$3,219,14
		\$1,823,003	\$5,045,932	\$2,958,380	
\$315,017	\$584,749	\$1,823,003	\$5,045,932	\$2,958,380	\$3,21

2012	2011	2010	2009	2008	2007
 \$19,482,152	\$18,217,570	\$17,376,644	\$15,995,412	\$14,886,707	\$13,741,87
\$19,482,152	\$18,217,570	\$17,376,644	\$15,995,412	\$14,886,707	\$13,741,87

2012	2011	2010	2009	2008	2007
 \$31,959,003	\$28,284,899	\$25,448,990	\$13,547,142	\$10,892,803	\$7,589,368
\$31,959,003	\$28,284,899	\$25,448,990	\$13,547,142	\$10,892,803	\$7,589,368
		ı			<u> </u>
\$1,616,336	\$1,882,112	\$1,493,913	\$1,927,732	\$3,621,108	\$4,749,042
\$1,616,336	\$1,882,112	\$1,493,913	\$1,927,732	\$3,621,108	\$4,749,042

## **Statistical Section Operating Information** *continued*

### Benefit and Refund Deductions from Fiduciary Net Position by Type continued

## **Defined Benefit System** | Statewide Hybrid Plan

Type of Benefit	2016	2015	2014	2013	
Age and service benefits:					
Retirees & Survivors	\$1,191,766	\$953,099	\$752,330	\$525,814	
Disability					
Total benefits	\$1,191,766	\$953,099	\$752,330	\$525,814	
	,			•	
Type of Refund					
Contributions					
(including interest earned)	\$17,151	\$18,365	\$35,373	\$36,845	
Total Refunds	\$17,151	\$18,365	\$35,373	\$36,845	

### Defined Benefit System | Colorado Springs New Hire Pension Plan - Combined Police & Fire

2016	2015	2014	2013	
\$18,988,354	\$16,350,538	\$14,334,086	\$13,463,745	
\$18,988,354	\$16,350,538	\$14,334,086	\$13,463,745	
ı			ı	
\$250,586	\$99,734	\$443,707	\$297,196	
\$250,586	\$99,734	\$443,707	\$297,196	
	\$18,988,354 <b>\$18,988,354</b> \$250,586	\$18,988,354 \$16,350,538 \$18,988,354 \$16,350,538 \$250,586 \$99,734	\$18,988,354 \$16,350,538 \$14,334,086 \$18,988,354 \$16,350,538 \$14,334,086 \$250,586 \$99,734 \$443,707	\$18,988,354 \$16,350,538 \$14,334,086 \$13,463,745 \$18,988,354 \$16,350,538 \$14,334,086 \$13,463,745 \$250,586 \$99,734 \$443,707 \$297,196

2012	2011	2010	2009	2008	2007
 \$449,818	\$317,469	\$236,346	\$282,930	\$155,143	\$95,405
\$449,818	\$317,469	\$236,346	\$282,930	\$155,143	\$95,405
				1	
\$3,097	\$14,990	\$5,069	\$232,027	\$78,716	\$122,503
\$3,097	\$14,990	\$5,069	\$232,027	\$78,716	\$122,503

2012	2011	2010	2009	2008	2007
\$12,832,278	\$11,920,608	\$10,259,279	\$8,754,606	\$6,982,005	\$5,340,492
\$12,832,278	\$11,920,608	\$10,259,279	\$8,754,606	\$6,982,005	\$5,340,492
				I	
\$353,856	\$479,250	\$384,736		\$376,799	\$504,126
\$353,856	\$479,250	\$384,736		\$376,799	\$504,126

# **Statistical Section Operating Information** *continued*

# Benefit and Refund Deductions from Fiduciary Net Position by Type continued

Fire & Police Members' Statewide Money Purchase Plan								
Type of Benefit	2016	2015	2014	2013				
Age and service benefits:	Retirees & Survivors Age and S	Service benefits are not o	calculated for this plan.					
Type of Refund								
Contributions								
(including interest earned)	\$247,528	\$245,503	\$300,406	\$951,163				
Total Refunds	\$247,528	\$245,503	\$300,406	\$951,163				

Self-Directed Assets for Affiliated Local Plans and Defined Benefit System Plans							
Type of Benefit	2016	2015	2014	2013			
Age and service benefits:	Age and service benefits: Retirees & Survivors Age and Service benefits are not calculated for this plan.						
Type of Refund							
Contributions							
(including interest earned)	\$41,738,925	\$62,813,697	\$39,891,560	\$42,699,246			
Total Refunds	\$41,738,925	\$62,813,697	\$39,891,560	\$42,699,246			

IRC 457 Deferred Compensation Plan									
Type of Benefit	2016	2015	2014	2013					
				2013					
Age and service benefits:	Retirees & Survivors Age and S	Service benefits are not c	.alculated for this plan.						
Type of Refund									
Contributions									
(including interest earned)	\$7,220,110	\$5,136,008	\$5,433,841	\$4,254,537					
Total Refunds	\$7,220,110	\$5,136,008	\$5,433,841	\$4,254,537					

2012	2011	2010	2009	2008	2007
2012	2011	2010	2009	2006	2007
\$1,067,020	\$175,587	\$402,564	\$262,920	\$500,040	\$644,083
\$1,067,020	\$175,587	\$402,564	\$262,920	\$500,040	\$644,083

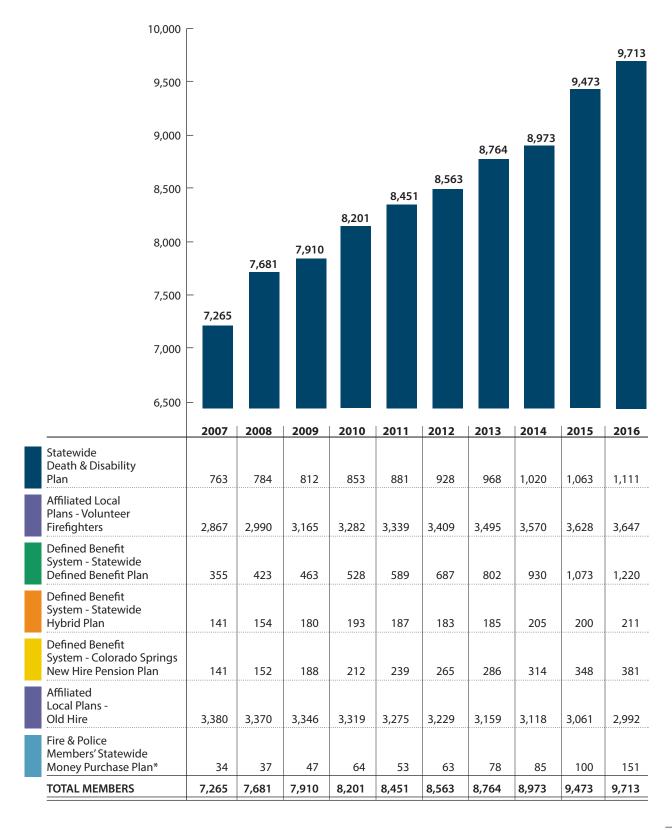
2012	2011	2010	2009	2008	2007
\$42,317,300	\$67,711,031	\$27,588,789	\$22,942,996	\$20,852,584	\$36,396,439
\$42,317,300	\$67,711,031	\$27,588,789	\$22,942,996	\$20,852,584	\$36,396,439

2012	2011	2010	2009	2008	2007
			T	1	1
\$4,457,433	\$4,792,208	\$4,837,214	\$1,909,744	\$1,821,135	\$2,861,400
\$4,457,433	\$4,792,208	\$4,837,214	\$1,909,744	\$1,821,135	\$2,861,400

# ■ FPPA Active Members by Plan Type (2007-2016)

16,400	Γ									16,392
16,200	_		16 102				16 161		16,169	
16,000	_		16,182				16,161	16,076	10,109	
15,800		15,886		15 720		15,860				
15,600	_			15,728	15,699					
15,400	_									
15,200	15,323 –									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Local Money Purchase Plans ( <i>Program</i> <i>eliminated in 2010</i> )	10	0	0	N/A						
Fire & Police Members' Statewide Money Purchase Plan	69	101	91	104	125	161	154	160	133	125
Statewide Death & Disability Plan Only	4,863	4,700	4,568	4,492	4,212	4,228	4,252	4,224	4,311	4,393
Affiliated Local Plans - Volunteer Firefighters	4,289	4,324	3,862	3,985	4,008	4,139	3,687	3,412	3,243	3,074
Defined Benefit System - Statewide Defined Benefit Plan	5,004	5,529	5,673	5,646	6,056	6,212	6,563	6,772	7,237	7,616
Defined Benefit System - Statewide Defined Benefit Plan DROP	90	95	126	152	215	236	290	317	313	304
Defined Benefit System - Statewide Hybrid Plan	393	365	421	403	477	470	458	419	363	346
Defined Benefit System - Statewide Hybrid Plan DROP	3	3	2	2	2	2	4	6	5	7
Defined Benefit System - Colorado Springs New Hire Pension Plan	883	846	801	748	616	595	573	539	489	440
Defined Benefit System - Colorado Springs New Hire Pension Plan DROP	57	65	62	77	81	67	57	54	64	80
Affiliated Local Plans - Old Hire	78	60	39	18	10	9	7	3	3	3
Affiliated Local Plans - Old Hire DROP	147	94	83	72	58	42	31	21	8	4
 TOTAL MEMBERS	15,323	15,886	16,182	15,728	15,699	15,860	16,161	16,076	16,169	16,392

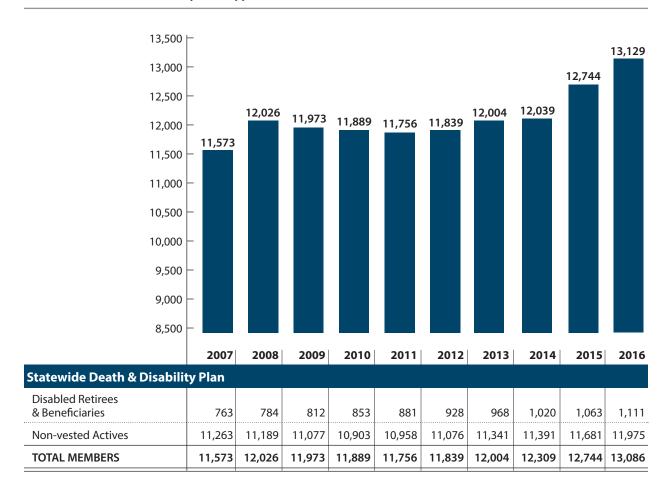
#### ■ FPPA Retired Members by Plan Type (2007-2016)



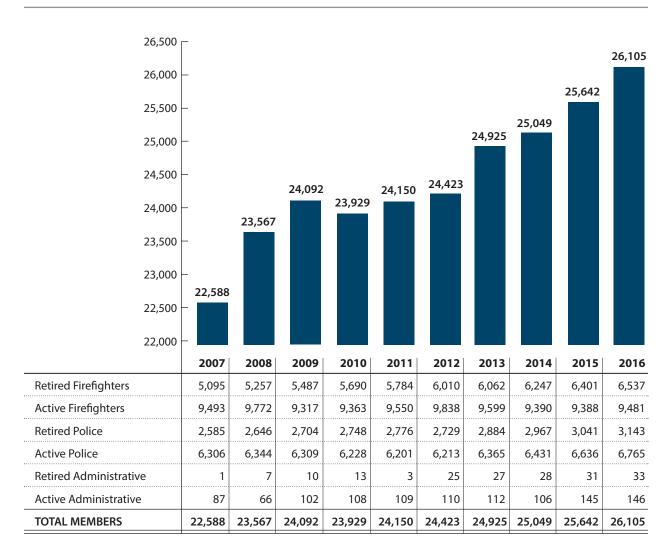
## ■ Defined Benefit System Members by Status (2007-2016)

11,000 10,500 10,000 9,500 9,000 8,500 8,000 7,500 7,000 6,500		7,067	7,632	7,916	7,961	8,462	8,717	9,218	10,092	10,606
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Defined Benefit System   S	tatewide	Defined	Benefit	Plan						
Terminated Vested	156	164	167	170	165	171	187	204	216	716
Retired & Beneficiaries	199	259	296	358	424	516	615	726	857	1,220
Non-vested Actives	1,963	2,300	2,139	1,841	1,792	1,686	1,877	2,071	2,499	2,381
Partially Vested Actives	2,751	2,918	3,208	3,467	3,899	4,161	4,355	4,352	4,360	4,128
Fully Vested Actives	290	311	326	338	365	365	331	349	378	391
DROP Actives	90	95	126	152	215	236	290	317	313	304
Defined Benefit System   S	tatewide	Hybrid I	Plan							
Retired, Beneficiaries, &										
Terminated Vested	141	154	180	193	187	183	185	205	200	235
Non-vested Actives	73	72	75	55	80	54	52	36	48	24
Partially Vested Actives	83	78	73	82	104	126	119	127	120	251
Fully Vested Actives	237	215	273	266	293	290	287	256	195	48
DROP Actives	3	3	2	2	2	2	4	6	5	7
Defined Benefit System   C	olorado S	prings N	New Hire	Pensior	Plan -	Combine	ed Police	& Fire		
Retired, Beneficiaries, & Terminated Vested	141	152	188	212	239	265	286	314	348	303
Non-vested Actives	141	132				114	90	45	16	393
INOTI-NESTER VEILES	460	<b>∕</b> 1∩0	3/10	) /AX						
Partially Vested Actives	460 372	409 380	349 405	268 435	174 399					
Partially Vested Actives Fully Vested Actives	372	380	405	435	399	431	426	424	424	383
Partially Vested Actives Fully Vested Actives DROP Actives										

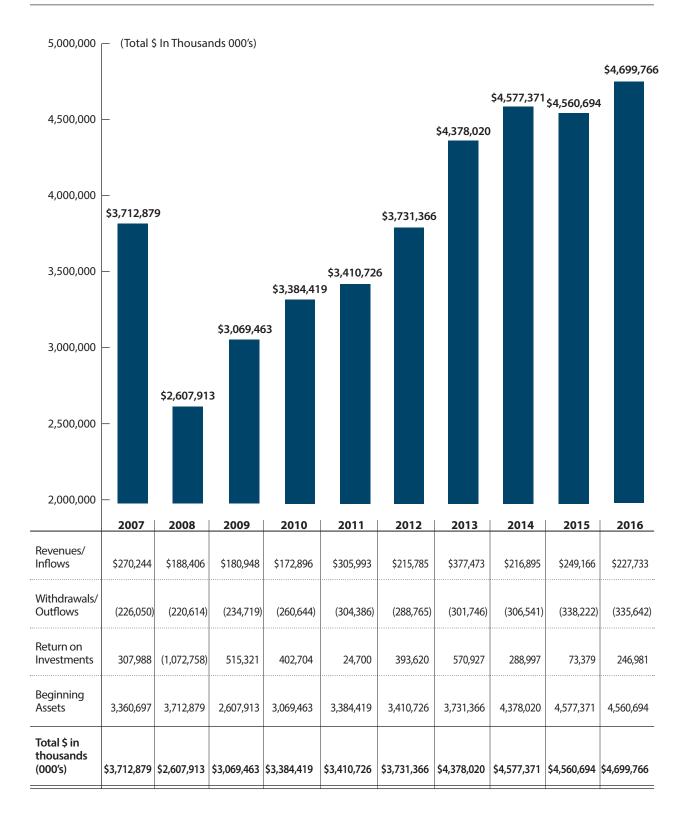
#### **■** FPPA Retired Members by Plan Type (2007-2016)



### ■ FPPA All Plans Active and Retired Members by Occupation (2007-2016)



#### ■ Growth of Total Pension Fund Position (2007-2016)



#### Schedule of Retired Members by Type of Benefit as of December 31, 2016

**Monthly Benefit Amount** \$501-\$1,001-\$1,501-\$2,001-<=\$500 \$1,000 \$1,500 \$2,000 \$2,500 >\$2,501 Total Statewide Death & Disability Plan Occupational Disability Occupational Disability-Survivor **Total Disability** Total Disability-Survivor Survivor of Active \* Fire & Police Members' Statewide Money Purchase Plan \* Money Purchase Only N/A N/A N/A N/A N/A N/A **Defined Benefit System Statewide Defined Benefit Plan** Retired Vested Retired-Survivor **Defined Benefit System** | Statewide Hybrid Plan \*Money Purchase Only N/A N/A N/A N/A N/A N/A Retired Vested Retired-Survivor Retired Vested Retired-Survivor **Affiliated Local Plans Disability Retirement** Disability-Survivor Retired 1,011 1,485 3,031 Vested 1,860 1,499 Retired-Survivor **Totals** 2,999 1,101 3,935 9,713

<sup>\*</sup> Details not available for members in the Money Purchase plans.



Fire & Police Pension Association of Colorado

www.FPPAco.org

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