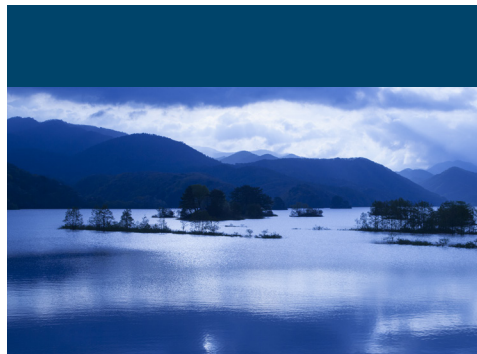


FPPA
Fire & Police Pension Association of



Colorado

Comprehensive
Annual
Financial
Report

for the
Fiscal Year
Ended
December 31, 2018

This report was created
under the direction of the
FPPA Board of Directors
David L. Bomberger, CFA, Chair
Pamela M. Feely, CPA, MBA, AF, Vice Chair
Todd Bower, JD, MBA
Karen M. Frame, CFA
Tammy Hitchens, CPA, CPFO
Sue Morgan, CCP
Nick Nuanes
Guy Torres, CIMA®, AIF®, MBA
Tyson Worrell
and prepared by the
FPPA Operations Division
Kim Collins, Chief Operations Officer
Agni Smith, CPA, 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

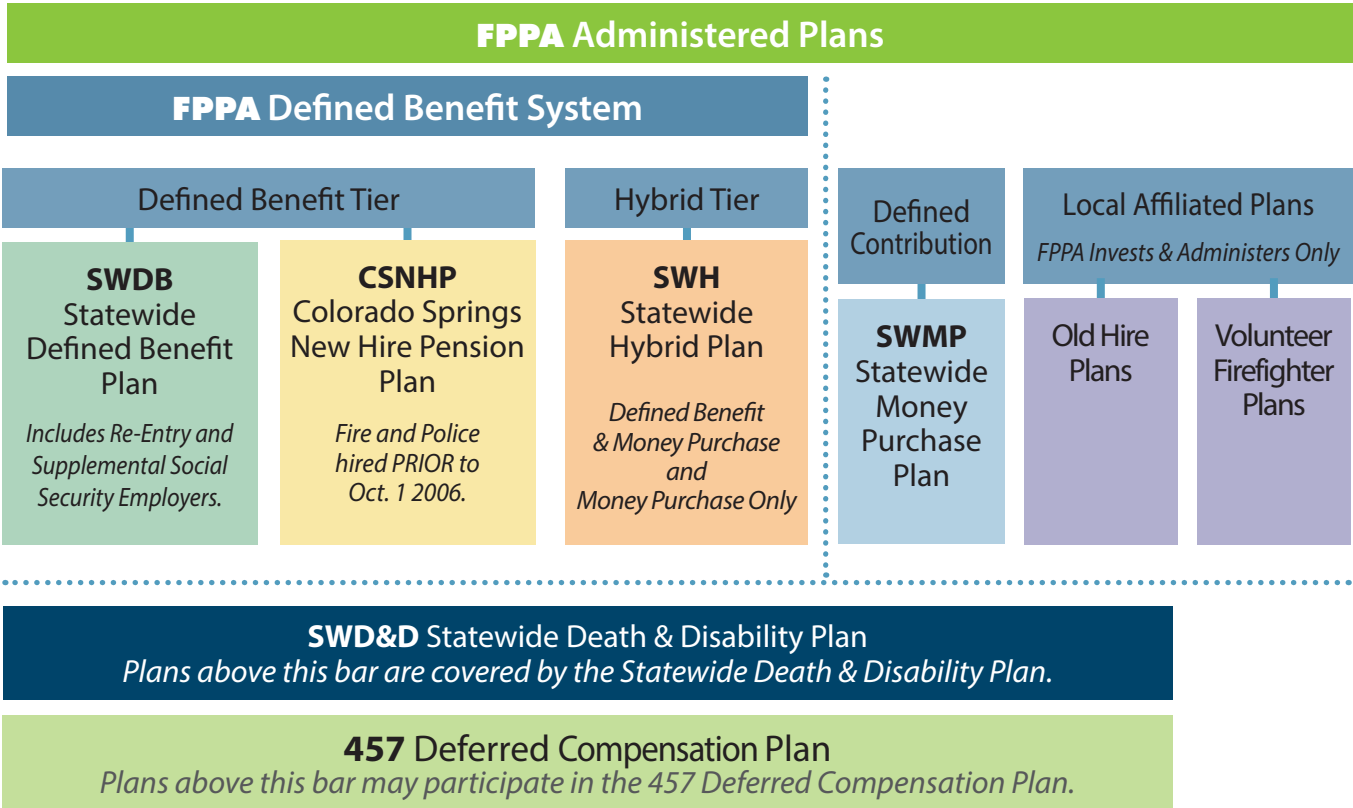


MISSION STATEMENT

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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June 30, 2019

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, 2018. This CAFR was prepared to aid interested parties in assessing FPPA's financial status as of December 31, 2018, 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 investment 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 FPPA Multi-Employer 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, 2018. 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 2.6% in 2018, compared to an increase of 2.3% in 2017. The labor markets improved in 2018 with non-farm payroll employment increasing by 2.7 million jobs during the year. The unemployment rate decreased to 3.9% in 2018 from 4.1% during 2017. The Federal Reserve increased the targeted federal funds rate four times from 1.50% in 2017 to 2.50% by the end of 2018. The consumer price index increased to 1.9% in 2018 compared to an increase of 2.1% in 2017.

The U.S. markets were largely negative in 2018. Large company stocks, as measured by the Russell 1000 Index, decreased 4.8% in 2018 compared to an increase of 21.7% in 2017. Smaller company stocks, as measured by the Russell 2000 Index, decreased 11.0% in 2018 compared to an increase of 14.6% in 2017. The Barclays Capital U.S. Aggregate Bond Index produced a return of 0.0% in 2018 compared to a return of 3.5% in 2017. Developed international equity markets underperformed the U.S. equity markets in 2018. The MSCI EAFE Index decreased by 13.4% in 2018 compared to an increase of 25.6% in 2017. The MSCI Emerging Markets Index decreased 14.2% in 2018 after increasing 37.8% in 2017.

In the currency markets, the U.S. dollar appreciated against most major currencies in 2018. The Euro depreciated 4.5% against the Dollar, closing at 1.1467 Dollars per Euro in 2018 from 1.2005 at the end of 2017. The British Pound depreciated 5.6% against the Dollar, closing at 1.2754 Dollars per GRB in 2018 from 1.3513 at the end of 2017. The Dollar appreciated 8.5% against the Canadian Dollar resulting in a rate of 1.3637 Canadian Dollars per U.S. Dollar in 2018 from 1.2571 at the end of 2017. The Dollar depreciated 2.7% relative to the Japanese Yen to 109.69 Yen per Dollar in 2018 from 112.69 at the end of 2017.

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

Investments

Net investible assets totaled \$5.345 billion in market value as of December 31, 2018, which was comprised of the Fire & Police Members' Benefit Investment Fund (\$4.910 billion) and the Fire & Police Members' Self-Directed Investment Fund (\$0.435 billion). The Members' Benefit Investment Fund generated a total time-weighted return of 0.10%, net of fees, for the one-year period ending December 31, 2018. This return was 1.93% above the Implementation Benchmark of (1.83)%. The Members' Benefit Investment Fund has achieved a 9.23% annualized return since inception in January 1980.

The board of directors establishes and continually updates investment allocation targets. At year-end, the following investment allocation targets were in effect: global equity 37.0%; equity long/short 9.0%; fixed income & cash 17.0%; absolute return 9.0%; managed futures 4.0%; and private markets 24.0%. At year-end, the Fire & Police Members' Benefit Investment Fund was allocated as follows: global equity 35.1%; equity long/short 8.6%; fixed income & cash 16.6%; absolute return 8.6%; managed futures 4.0%; and private markets 27.3%. The board of directors 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 of directors 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 2018 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 in the following chart 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, 2018 is as follows:

Plan (information as of January 1, 2018)	Funding Ratio	Actuarial Value of Assets	Actuarial Accrued Liability
Statewide Death & Disability Plan	100.1%	\$395,302,474	\$394,774,736
Defined Benefit System			
Statewide Defined Benefit Plan	103.7%	2,353,241,861	2,269,410,684
Statewide Hybrid Plan – Defined Benefit Component	135.5%	68,207,993	50,319,464
Colorado Springs New Hire Pension Plan – Police Component	89.9%	308,034,365	342,817,503
Colorado Springs New Hire Pension Plan – Fire Component	82.5%	139,084,637	168,492,702

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, 2018, 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. Investment returns during 2017, created actuarial investment gains for many 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 following schedule are comprised of 42.7% police officers, 56.4% firefighters, and 0.9% administrative fire district staff.

Active Membership in the Plans	12/31/2018	12/31/2017	% Change
Statewide Death & Disability Plan	12,747	12,214	4.4%
Defined Benefit System			
Statewide Defined Benefit Plan	9,616	8,727	10.2%
Statewide Hybrid Plan	386	377	2.4%
Colorado Springs New Hire Pension Plan*	458	497	(7.8%)
Affiliated Local Plans			
Old Hire*	5	6	(16.7%)
Volunteer Firefighters	2,818	2,883	(2.3%)
Statewide Money Purchase Plan	159	118	34.7%

* 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	12/31/2018	12/31/2017	% Change
Statewide Death & Disability Plan	422	411	2.7%
Defined Benefit System			
Statewide Defined Benefit Plan	235	227	3.5%
Statewide Hybrid Plan	44	40	10.0%
Colorado Springs New Hire Pension Plan	1	1	0.0%
Affiliated Local Plans			
Old Hire	48	48	0.0%
Volunteer Firefighters	173	173	0.0%
Statewide Money Purchase Plan	49	48	2.1%

Summary Financial Information

The following schedule is a comparative summary of the revenues and expenses of the Funds for the years ended December 31, 2018 and December 31, 2017.

	12/31/2018	12/31/2017	% Change
Contributions	\$434,047,371	\$450,141,473	(3.6%)
Net Investment Income	(26,253,579)	692,898,213	(103.8%)
Benefit Payments and Refunds	(437,416,804)	(420,597,867)	4.0%
Administrative Expenses	(7,835,501)	(7,587,441)	3.3%
Pension Expense	(9,735,128)	(7,710,913)	26.3%
Net Change	\$(47,193,641)	\$707,143,465	(106.7%)

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.

Additionally, graphs and charts of statistical data may be found throughout the CAFR.

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, 2018, 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, 2018, 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. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions for the reporting period ended December 31, 2018. GASB Statement No. 75 governs how public other post-employment benefits (OPEB) plan sponsors (i.e. employers) report their share of OPEB liability and expense on their financial statements. As it relates to the FPPA Statewide Death & Disability Plan, there is little impact to employers because the contributions to the plan are made by members or on behalf of members; thus, there is no employer obligation to fund the plan. FPPA provides additional analysis on the impact of GASB Statement No. 75 for employers on the website.

FPPA staff also participate in the Colorado Public Employees Retirement Association Health Care Trust Fund. FPPA implemented GASB Statement No. 75 as an employer in a public other post-employment benefits plan for its December 31, 2018 financial reports. The implementation resulted in a restatement of the December 31, 2017 fiduciary net position restricted for pension and other post-employment benefits. FPPA is reporting the net other post-employment benefits liability, deferred outflows of resources, deferred inflows of resources and other post-employment benefits expense as part of the December 31, 2018 financial statements. Additional information on the impact of implementation is addressed in the Financial Section.

Independent Audit

The accounting firm of Eide Bailly LLP rendered an opinion as to the fairness of the Funds' 2018 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 2018, FPPA continued to follow its strategic plan and made adjustments, as needed, in response to changing economic conditions. Resources were devoted to several major initiatives. FPPA continued its efforts to improve services, prudently manage fund assets, streamline business operations, and increase operational efficiency. The following were FPPA's major initiatives in 2018:

- FPPA continues to focus on its member and employer education initiative. We 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 accounting requirements, managing membership and contribution data, fiduciary responsibility, and other related topics. We strongly recommend these seminars to members, retirees, and employers. In addition, we expanded our newsletter communication and added a blog edition to provide more timely information to our membership.
- In 2003, legislation was enacted to allow departments who cover their firefighters and police officers in money purchase plans to elect coverage under the FPPA Defined Benefit System. A reentry moratorium was in place through 2014 as the Statewide Defined Benefit Plan Member Contribution Election was completed. The board of directors lifted the moratorium for partial reentry in 2017 to align with their strategic plan objective to expand membership into FPPA's retirement plans. Five departments completed the partial reentry process in 2018. Discussions are ongoing with other departments.
- At its September 2018 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, 2019. 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 January 1, 2019.

The main actuarial factor changes effective January 1, 2019 were:

- Reduce the investment return assumption from 7.5% to 7.0%. The investment return assumption is one of the principal assumptions in any actuarial valuation of a retirement plan. It is used to discount future expected benefit payments to the valuation date, in order to determine the liabilities of the plan. Even a small change to this assumption can produce significant changes to the liabilities and contribution rates. The board of directors reduced the assumption to 7.0% as this was the median expected portfolio return given the fund's target allocation and given a set of capital market assumptions.
- Increase the expected incidence of 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 - Defined Benefit Component Plan, Colorado Springs New Hire Plan) to the Statewide Death & Disability Plan. Increasing the expected incidence of 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, 2019 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.

- FPPA established an internal review committee in 2018 to evaluate the asset allocation and funding policies of the affiliated local plans closed to new members since April 8, 1978 (Old Hires) in light of the changing demographics and cash flow forecasts for those plans. Specifically, the committee was asked to recommend the appropriate investment strategy, considering the characteristics of both assets and liabilities, as the plans enter a late-cycle stage where the majority of their remaining benefit obligations will be paid out in a relatively short timeframe. The committee closely considered the probability of unexpected increases to contribution rates and the plans' ability to withstand investment volatility over their remaining expected life.

At its March 2019 meeting, the board of directors approved new asset allocations for the Old Hire plans. Plans will either be invested in a short-term pool of assets or will be transitioned over time into a short-term pool of assets. These new asset allocations, designed to meet the plan's increasing need for liquidity and to reduce the risk of loss of assets, will further impact the expected rate of return on the assets. FPPA anticipates implementing the new asset allocations effective July 1, 2019.

- In September 2018, the board of directors created a task force to study - and potentially recommend - possible changes in the Statewide Pension System (Statewide Defined Benefit Plan, Statewide Hybrid Plan, and Statewide Death & Disability Plan). The task force is studying and discussing various ways to ensure the continued soundness of the retirement plans. The decision to create a task force was born out of FPPA's commitment to provide high quality benefits to our active and retired members. The task force is comprised of employer representatives, plan members, and related associations. After studying the individual plans and evaluating the potential impact of any proposed modifications, the task force will present recommendations in June 2019 to the board of directors regarding any changes they believe to be in the best interest of the Statewide Pension System.
- In 2017 we began a multi-year redesign of our core pension management system to incorporate business process management workflow solutions and reengineer the Member Account Portal (MAP) and the Employer Portal with self-service features. MAP was enhanced with a new member onboarding process in 2018. Additional self-service features for service purchase credit and refund of contribution processing will be implemented in 2019.

Legislation

Two pieces of legislation were passed into law affecting FPPA and its plans in 2018:

House Bill 18-1056

This bill allowed FPPA to implement an electronic Statewide Standard Health History Form and closed the gap on preexisting conditions omitted from a completed Statewide Standard Health History Form.

House Bill 18-1031

This bill authorizes employers to elect to enroll new employees in the FPPA Defined Benefit System and simplified the statutory process for local money purchase plan departments to join the FPPA Defined Benefit System.

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, 2017. 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 2018 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 Colorado State Auditor, and the Colorado General Assembly's Joint Budget Committee and Pension Review 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, 2017

Christopher P. Morrell

Executive Director/CEO



Public Pension Coordinating Council

**Public Pension Standards Award
For Funding and Administration
2018**

Presented to

Fire and Police Pension Association of Colorado

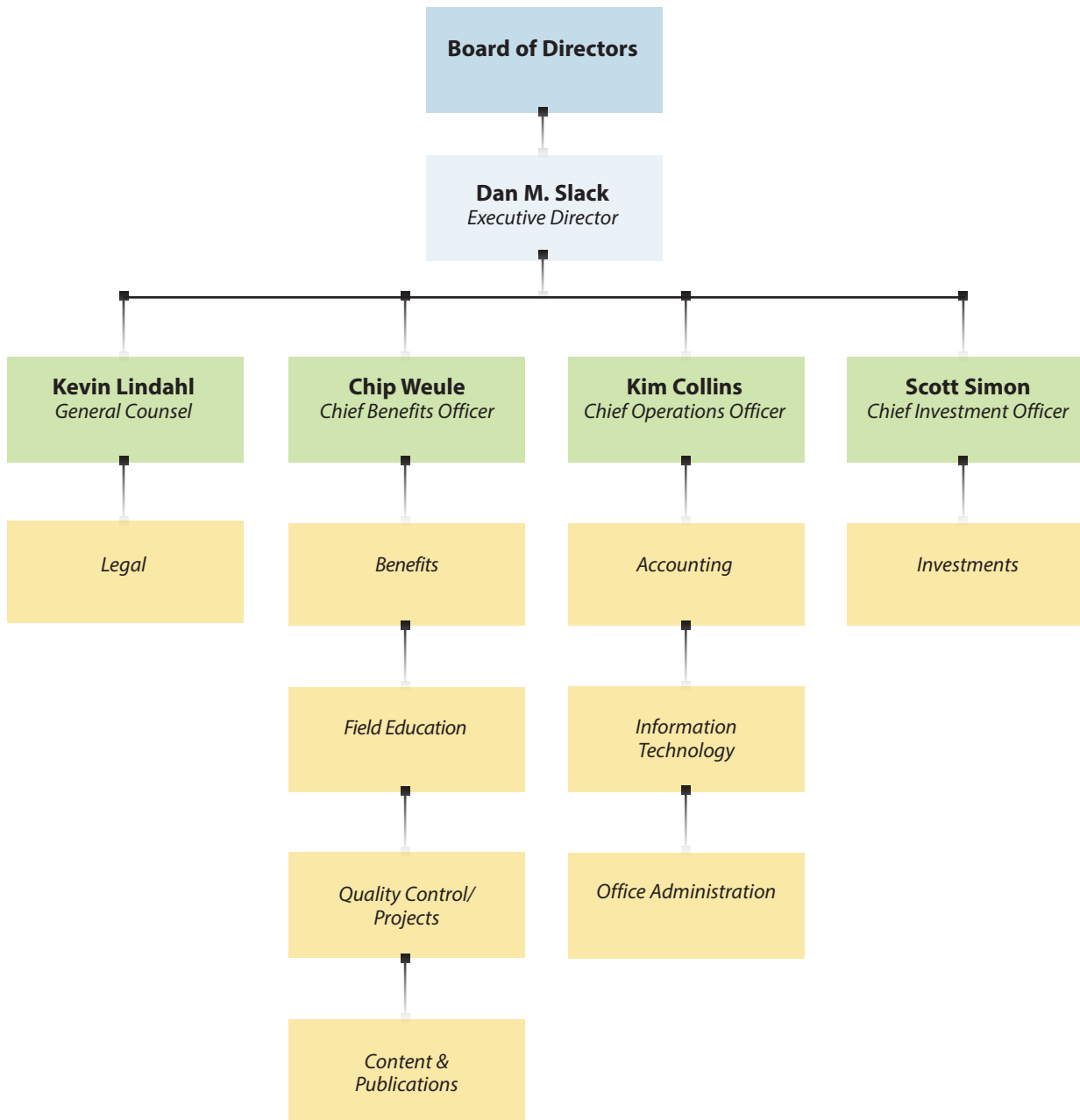
In recognition of meeting professional standards for
plan funding and administration as
set forth in the Public Pension Standards.

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 H. Winkle

Alan H. Winkle
Program Administrator



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 and educational meetings, held nine 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.



David L. Bomberger, CFA

Board Chair
Chief Investment Officer,
Pinnacol Assurance
Member since 2013
Current term expires 9/1/21

**Pamela M. Feely,
CPA, MBA, AF**

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



Todd Bower, JD, MBA

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



Karen M. Frame, CFA

Former Chief Compliance
Officer, CenturyLink
Investment Management
Member since 2018
Current term expires 9/1/21

**Tammy Hitchens,
CPA, CPFO**

Finance Director,
City of Westminster
Member since 2017
Current term expires 9/1/19



Sue Morgan, CCP

Human Resources Manager,
Town of Castle Rock
Member since 2015
Current term expires 9/1/21



Nick Nuanes

Retired Firefighter,
Chief Denver Fire Department
Member since 2013
Current term expires 9/1/19



**Guy Torres,
CIMA®, AIF®, MBA**

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

Actuarial

Gabriel Roeder Smith & Co

Auditor

Eide Bailly LLP
BKD, LLP

Board Medical Advisors

Clarence Henke, M.D., P.C.
Annu Ramaswamy, M.D., P.C.
Douglas Scott, M.D., M.P.H.

Investment Consultants

Albourne America, LLC
AndCo Consulting, LLC
Cambridge Associates, LLC
Pension Consulting Alliance

Investment Compliance

EIRIS Conflict Risk Network
IW Financial
Kroll Associates, Inc.
Scherzer International Risk
Management Background Investigations
Subrosa Investigations, LLC

Master Custodian/Trustee

BNY Mellon Asset Servicing

Recordkeeper

Fidelity Investments

Management

Choose People
Jan Hargrave & Associates
Nicoletti-Flater Associates

Legal Counsel

DLA Piper LLP
Ice Miller LLP
Jackson Walker LLP
Murray Dahl Kuechenmeister & Renaud LLP
SJT Law, LLC
Stieber Campbell, P.C.
Thomas L. Kanan, Esq.

Governmental Relations

Lombard & Clayton

Investment Managers*

Total Fund Overlay

Russell Investments

Global Equity

Allianz Global Investors
Baillie Gifford Overseas
BNP Paribas
DE Shaw Investment Management
Driehaus Asset Management
Kabouter Management
Kayne Anderson Capital Advisors
Mellon Capital Management
Neumeier Poma Investment Counsel
Numeric Investors
State Street Global Advisors
Walter Scott Partners
WorldQuant Quantitative Strategies

Equity Long/Short

AKO Capital
Anchor Bolt Capital
Hitchwood Capital Management
Luxor Capital Partners
Palestra Capital Partners
Rivulet Capital Partners
RK Capital Management
Sachem Head Capital Management
Southpoint Capital Advisors
Yiheng Capital Partners

Fixed Income

Garcia Hamilton Associates
Loomis Sayles & Company
Manulife Asset Management
Prudential Capital Group
State Street Global Advisors

Managed Futures

AHL Partners
Graham Capital Management
KeyQuant
Winton Capital Management Limited

Investment Managers* - continued*Real Assets*

Alpha Petroleum
 ArcLight Energy Partners
 Arroyo Energy Investment Partners
 Barrings
 BroadRiver Asset Management
 Capital Royalty Partners
 Energy Capital Partners
 Enervest
 EIG Management Company
 Incus Capital
 Petroleum Equity RHO
 Raven Capital Management
 RiverRock European Capital Partners
 Rosemawr Management
 Scout Energy Partners

Real Estate

Blackrock
 Blackstone Capital Partners
 H2 Real Estate
 JP Morgan Asset Management - Real Estate
 Locust Point Capital
 Morgan Stanley Real Estate
 Pauls Realty Fund Advisor
 Prudential Real Estate Investors
 RREEF Alternative Investments
 Velocis

Absolute Return

Alphadyne Asset Management
 AQR Capital Management
 Autonomy Capital
 Citadel Advisors
 HBK Capital
 Hudson Bay Capital Associates
 Pharo Global Advisors Limited

Private Equity

Alchemy Special Opportunities
 American Securities
 Blue Torch Capital
 Bowmark Capital Partners
 Capital Partners
 Catterton Partners
 Centre Lane Partners
 Commonfund Capital
 CVC European Equity Partners
 Endeavour Capital
 Energy Innovation Capital
 Energy & Minerals Group
 Enhanced Equity

Private Equity, continued

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
 Littlejohn & Co.
 Mayfair Equity Partners
 Mercato Partners
 Mesirow Financial
 MVM Life Science Partners
 Nautic Partners
 NB Dyal
 New Enterprise Associates
 NGP Energy Capital Management
 Nordic Capital
 NVM Private Equity
 Oak Hill Advisors
 O'Brien-Staley Partners
 Palladium Capital Management
 Periscope Equity
 Questa 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
 Three Hill Capital Partners
 Transom Capital Group
 Ufenau Capital Partners
 Venture Investment Managers
 Veritas Capital
 Warren Equity Partners

** Additional information on the Investment Managers can be found in the Investment Section - Asset Allocation by Category and Investment Manager schedule*

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Financial Section

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 Firefighter 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 FPPA Multi-Employer 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.





CPAs & BUSINESS ADVISORS

Independent Auditor's Report

To the 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 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, 2018, and the related notes to the financial statements, which collectively comprise the Association's basic 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.

Auditor's Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audits 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 auditor's 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.

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

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the Fire and Police Members' Benefit Investment Fund and the Fire and Police Members' Self-Directed Investment Fund as of December 31, 2018, 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.

Emphasis of Matter - Change in Accounting Principle

As discussed in Notes 3 and 11 the Fire and Police Pension Association of Colorado has adopted the provisions of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, which has resulted in a restatement of the net position as of January 1, 2018. In accordance with GASB Statement No. 75, the 2017 financial statements have not been restated to reflect this change. Our opinions are not modified with respect to this matter.

Emphasis of Matter - Investments

As described in Note 2 to the financial statements, the financial statements include investments valued at \$1,327,208,306 (27 percent of the Fire and Police Members' Benefit Investment Fund net position) whose carrying values have been estimated by management in the absence of readily determinable fair values. Management's estimates are based on information provided by the fund managers or the general partners. Our opinions are not modified with respect to this matter.

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 of pension and OPEB plan investments, schedule of changes in the employers' net pension liability, schedule of employers' contributions, notes to required supplementary information for cost-sharing and single employer plans, schedule of changes in the net OPEB liability for the statewide death and disability plan and the staff healthcare subsidy plan, and the notes to required supplementary information OPEB plans, as listed in the table of contents, 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 inquires of management about the methods or preparing the information and comparing the information for consistency with management's responses to our inquires, 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.

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Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise of the Fire and Police Pension Association of Colorado's basic financial statements. The introductory section, other supplementary information, investment section, actuarial section, and statistical section are presented for purposes of additional analysis and are not a required part of the financial statements.

The other supplementary information as identified in the table of contents is the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the 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 have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

Report on Summarized Comparative Information

We have previously audited the Association's 2017 financial statements, and we expressed an unmodified opinion on those audited financial statements in our report dated June 8, 2018. In our opinion, the summarized comparative information presented herein as of and for the year ended December 31, 2017 is consistent, in all material respects with the audited financial statements from which it has been derived.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated June 3, 2019 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 solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Association's 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.



Denver, Colorado
June 3, 2019

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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, 2018. 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 Firefighter 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 (Fidelity Investments). The Fire & Police Members' Self-Directed Investment Fund includes the assets in the Fire & Police Members' Statewide Money Purchase Plan and the FPPA Multi-Employer 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 decreased \$(47,193,641) during the calendar year 2018.

Change in Fiduciary Net Position	
Affiliated Local Plans	\$(122,314,452)
Statewide Death & Disability Plan	(10,073,753)
Defined Benefit System	
Statewide Defined Benefit Plan	108,782,086
Statewide Hybrid Plan	2,620,982
Colorado Springs New Hire Plan - Fire Component	(3,802,193)
Colorado Springs New Hire Plan - Police Component	(4,943,392)
FPPA Staff Healthcare Subsidy Plan	(10,924)
Fire & Police Members' Statewide Money Purchase Plan	(1,525,348)
Self-Directed Assets for Affiliated Local and Defined Benefit System Plans	(14,004,853)
FPPA Multi-Employer Deferred Compensation Plan	(1,921,794)
Total Decrease in Fiduciary Net Position	\$(47,193,641)

The Fire & Police Members' Benefit Investment Fund experienced slightly positive performance for the year ended December 31, 2018. Global stocks were down approximately 9.8 percent and US bonds were flat approximately 0.0 percent for the year (compared to 2017, where global stocks were up 24.3 percent along with US bonds being up 3.5 percent).

For the year ended December 31, 2018, the gross rate of return on the Fire & Police Members' Benefit Investment Fund was 1.17 percent, (0.10 percent, net of fees). Performance for the year ended December 31, 2017 was 15.96 percent (14.95 percent, net of fees). The net investment loss for all of the funds, including the Fire & Police Members' Self-Directed Investment Fund administered by FPPA, for the year ended December 31, 2018 was \$(26,434,688) as compared to a \$692,837,155 gain for 2017. 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.

Net Investment Gain/(Loss)

Affiliated Local Plans	\$1,932,532
Statewide Death & Disability Plan	81,639
Defined Benefit System	
Statewide Defined Benefit Plan	(2,328,457)
Statewide Hybrid Plan	(72,608)
Colorado Springs New Hire Plan - Fire Component	35,483
Colorado Springs New Hire Plan - Police Component	22,645
FPPA Staff Healthcare Subsidy Plan	144
Fire & Police Members' Statewide Money Purchase Plan	(580,446)
Self-Directed Assets for Affiliated Local and Defined Benefit System Plans	(16,624,768)
FPPA Multi-Employer Deferred Compensation Plan	(8,900,852)
Total Net Investment Loss	\$(26,434,688)

Overview of the Financial Statements

The FPPA 2018 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. GASB 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). The Statewide Death & Disability Plan and FPPA Staff Healthcare Subsidy Plan are reported as Other Post-Employment Benefits (OPEB) plans. In 2017, FPPA began reporting a net OPEB liability instead of the previously required UAAL under GASB Statement No. 74, Financial Reporting for Postemployment Benefits Other Than Pension Plans. FPPA has not changed its funding methodology with the implementation of Statements No. 67 and No. 74.

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, 2018. 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, 2018. 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 and OPEB Plan Investments, Schedule of Changes in the Employers' Net Pension Liability, Schedule of Employers' Contributions, Schedule of Changes in the Employers' Net OPEB Liability and Schedule of Employers' 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	12/31/2018	12/31/2017	% Change
Assets			
Cash and Short Term Investments	\$241,966,609	\$287,372,773	(15.80%)
Securities Lending Collateral	53,283,660		N/A
Total Other Investments	4,644,595,769	4,667,422,154	(0.49%)
Receivables	76,600,429	53,017,465	44.48%
Other Assets	4,783,891	4,332,657	10.41%
Total Assets	\$5,021,230,358	\$5,012,145,049	0.18%
Deferred Outflows of Resources	\$9,146,762	\$11,803,974	(22.51%)
Total Assets and Deferred Outflows	\$5,030,377,120	\$5,023,949,023	0.13%
Liabilities			
Securities Lending Liabilities	\$53,283,660		N/A
Investment and Other Liabilities	27,853,908	\$50,864,292	(45.24%)
Net Pension and Other Post-Employment Benefit Liability	37,910,549	32,549,920	16.47%
Total Liabilities	\$119,048,117	\$83,414,212	42.72%
Deferred Inflows of Resources	\$1,409,651	\$100,190	1,306.98%
Total Liabilities and Deferred Inflows	\$120,457,768	\$83,514,402	44.24%
Fiduciary Net Position Restricted for Pension and Other Post-Employment Benefits	\$4,909,919,352	\$4,940,434,621	(0.62%)
Fire & Police Members' Self-Directed Investment Fund Fiduciary Net Position	12/31/2018	12/31/2017	% Change
Assets			
Cash and Short Term Investments	\$179,071	\$162,973	9.88%
Total Other Investments	431,631,479	449,959,612	(4.07%)
Receivables	3,038,789	2,178,749	39.47%
Fiduciary Net Position Restricted for Pension and Other Post-Employment Benefits	\$434,849,339	\$452,301,334	(3.86%)

**Fire & Police Members' Benefit Investment
Fund Changes in the Fiduciary Net Position**

	12/31/2018	12/31/2017	% Change
Additions			
Employer Contributions	\$113,755,404	\$107,937,634	5.39%
Member Contributions	177,570,441	190,030,232	(6.56%)
Contributions for Service Reinstatement	38,107		N/A
Affiliations (Withdrawals) *		(582,682)	100.00%
State Contributions	2,963,908	2,957,415	0.22%
Investment Income	(328,622)	632,737,251	(100.05%)
Securities Lending Income	181,109	61,058	196.62%
Total Additions	\$294,180,347	\$933,140,908	(68.47%)

Deductions

Benefit Payments	\$302,704,714	\$284,981,165	6.22%
Refunds of Contributions	4,874,564	2,534,201	92.35%
Administrative Expenses	6,607,587	6,275,822	5.29%
Pension and Other Post-Employment Benefit Expense	9,735,128	7,710,913	26.25%
Total Deductions	\$323,921,993	\$301,502,101	7.44%

**Change in Fiduciary Net Position Restricted for Pension and
Other Post-Employment Benefits**

\$(29,741,646) \$631,638,807 (104.71%)

* The fiduciary net position of the Fire & Police Members' Benefit Investment Fund decreased by \$582,682 due to the idle funds distribution of Bow Mar Old Hire Police Plan and disaffiliation of Milliken FPD Volunteer Plan during 2017.

**Fire & Police Members' Self-Directed Investment
Fund Changes in Fiduciary Net Position**

	12/31/2018	12/31/2017	% Change
Additions			
Employer Contributions	\$3,719,550	\$3,448,618	7.86 %
Member Contributions	50,410,157	44,085,129	14.35 %
Affiliations *	85,589,804	102,265,127	(16.31)%
Investment Income/(Loss)	(26,106,066)	60,099,904	(143.44)%
Total Additions	\$113,613,445	\$209,898,778	(45.87)%

Deductions

Refunds of Contributions	\$129,837,526	\$133,082,501	(2.44)%
Administrative Expenses	1,227,914	1,311,619	(6.38)%
Total Deductions	\$131,065,440	\$134,394,120	(2.48)%

**Change in Fiduciary Net Position Restricted for Pension and
Other Post-Employment Benefits**

\$(17,451,995) \$75,504,658 (123.11)%

* The fiduciary net position of the Fire & Police Members' Self-Directed Investment Fund increased by \$85,589,804 due to the reentry affiliations of Broomfield Police, Fountain Police, Grand Junction Fire, Littleton Police and Montrose Police during 2018. It increased \$102,265,127 in 2017 due to the reentry affiliations of Edgewater Police, Thornton Police, Thornton Fire and Westminster Police.

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Statement of Fiduciary Net Position | December 31, 2018 with Comparative Combined Totals for 2017

	TOTAL MEMBERS' BENEFIT INVESTMENT FUND	TOTAL MEMBERS' SELF-DIRECTED INVESTMENT FUND	COMBINED TOTALS 2018	COMBINED TOTALS 2017
ASSETS				
Cash & Short Term Investments (Note 5)	\$241,966,609	\$179,071	\$242,145,680	\$287,535,746
Investments (Note 5)				
Fixed Income	\$753,301,618		\$753,301,618	\$853,972,158
Global Equity	1,585,017,605		1,585,017,605	1,650,203,047
Equity Long/Short	361,912,064		361,912,064	424,046,552
Real Assets	389,640,327		389,640,327	292,282,622
Real Estate	221,254,751		221,254,751	196,599,541
Absolute Return	422,637,816		422,637,816	463,635,512
Private Capital	716,313,228		716,313,228	608,356,389
Managed Futures	194,518,360		194,518,360	178,326,333
Domestic Equity Funds		104,960,845	104,960,845	115,280,377
International Equity Funds		20,284,904	20,284,904	22,532,735
Balanced Funds		189,810,237	189,810,237	191,056,738
Fixed Income Funds		23,536,062	23,536,062	22,597,147
Money Market & Stable Value Funds		35,417,019	35,417,019	33,159,565
Participant Brokerage Funds		57,622,412	57,622,412	65,333,050
Securities Lending Collateral	53,283,660		53,283,660	
Total Investments	\$4,697,879,429	\$431,631,479	\$5,129,510,908	\$5,117,381,766
Total Cash and Investments	\$4,939,846,038	\$431,810,550	\$5,371,656,588	\$5,404,917,512
Receivables				
Other	\$17,204	\$2,452,806	\$2,470,010	\$1,658,038
Assets Sold-Pending Trades	62,067,497		62,067,497	41,185,643
Contributions	4,601,882	585,983	5,187,865	4,857,201
Accrued Interest and Dividends	9,913,846		9,913,846	7,495,332
Total Receivables	\$76,600,429	\$3,038,789	\$79,639,218	\$55,196,214
Property and Equipment, at Cost, Net of Accumulated Depreciation/Amortization (Note 8)	\$4,132,628		\$4,132,628	\$4,098,802
Other Assets	651,263		651,263	233,855
DEFERRED OUTFLOWS OF RESOURCES				
Changes in Net Pension and Other Post- Employment Benefits Liability (Notes 9 & 11)	9,146,762		9,146,762	11,803,974
TOTAL ASSETS AND DEFERRED OUTFLOWS	\$5,030,377,120	\$434,849,339	\$5,465,226,459	\$5,476,250,357
LIABILITIES				
Payables				
Accounts, Employee and Participants Payable	\$2,843,206		\$2,843,206	\$2,325,967
Assets Purchased-Pending Trades	25,010,702		25,010,702	48,538,325
Securities Lending Liabilities (Note 5)	53,283,660		53,283,660	
Total Payables	\$81,137,568		\$81,137,568	\$50,864,292
Net Pension and Other Post-Employment Benefits Liability (Notes 9 & 11)	\$37,910,549		\$37,910,549	\$32,549,920
DEFERRED INFLOWS OF RESOURCES				
Changes in Net Pension and Other Post- Employment Benefits Liability (Notes 9 & 11)	\$1,409,651		\$1,409,651	\$100,190
TOTAL LIABILITIES AND DEFERRED INFLOWS	\$120,457,768		\$120,457,768	\$83,514,402
FIDUCIARY NET POSITION RESTRICTED FOR PENSION AND OTHER POST-EMPLOYMENT BENEFITS	\$4,909,919,352	\$434,849,339	\$5,344,768,691	\$5,392,735,955

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

Statement of Changes in Fiduciary Net Position | For the year ended December 31, 2018 with Comparative Combined Totals for 2017

	TOTAL MEMBERS' BENEFIT INVESTMENT FUND	TOTAL MEMBERS' SELF-DIRECTED INVESTMENT FUND	COMBINED TOTALS 2018	COMBINED TOTALS 2017
ADDITIONS				
Contributions				
Employer	\$113,755,404	\$3,719,550	\$117,474,954	\$111,386,252
Member	177,570,441	50,410,157	227,980,598	234,115,361
Contributions for Service Reinstatement	38,107		38,107	
Affiliations		85,589,804	85,589,804	101,682,445
State Contributions	2,963,908		2,963,908	2,957,415
Total Contributions	\$294,327,860	\$139,719,511	\$434,047,371	\$450,141,473
Investment Income (Loss)				
Net Appreciation (Depreciation) in Fair Value of Investments	\$(43,194,506)	\$(37,501,541)	\$(80,696,047)	\$629,692,463
Interest	20,705,579	212,068	20,917,647	12,558,897
Dividends	38,151,356	15,195,779	53,347,135	45,807,818
Other Income	27,886,131		27,886,131	39,207,648
Participant Brokerage Income (Loss)		(4,012,372)	(4,012,372)	9,555,661
Loss on Securities Lending				(39,381)
Total Investment Income (Loss)	\$43,548,560	\$(26,106,066)	\$17,442,494	\$736,783,106
Less Investment Consulting	\$1,390,886		\$1,390,886	\$682,900
Less Investment Management Fees	37,629,914		37,629,914	38,887,245
Less Investment Legal Fees	409,319		409,319	236,959
Less Investment Closing Costs	38,674		38,674	90,675
Less FPPA Investment Personnel Services	3,122,579		3,122,579	2,844,633
Less Bank Fees	525,355		525,355	566,910
Less Other Misc. Investment Expenses	760,455		760,455	636,629
Net Investment Income (Loss)	\$(328,622)	\$(26,106,066)	\$(26,434,688)	\$692,837,155
Securities Lending				
Income	\$801,568		\$801,568	\$222,248
Borrowers Rebates	(560,142)		(560,142)	(117,088)
Agent Fees	(60,317)		(60,317)	(44,102)
Net Securities Lending Income	\$181,109		\$181,109	\$61,058
Total Additions	\$294,180,347	\$113,613,445	\$407,793,792	\$1,143,039,686
DEDUCTIONS				
Benefit Payments	\$302,704,714		\$302,704,714	\$284,981,165
Refunds of Contributions (including interest earned)	4,874,564	\$129,837,526	134,712,090	135,616,702
Administrative Costs	6,607,587	1,227,914	7,835,501	7,587,441
Pension and Other Post-Employment Benefits Expense	9,735,128		9,735,128	7,710,913
Total Deductions	\$323,921,993	\$131,065,440	\$454,987,433	\$435,896,221
NET INCREASE (DECREASE) IN FIDUCIARY NET POSITION	\$(29,741,646)	\$(17,451,995)	\$(47,193,641)	\$707,143,465
FIDUCIARY NET POSITION RESTRICTED FOR PENSION AND OTHER POST-EMPLOYMENT BENEFITS				
BEGINNING OF YEAR	\$4,940,434,621	\$452,301,334	\$5,392,735,955	\$4,685,592,490
Effect of Change in Accounting Principle (Note 3)	\$(773,623)		\$(773,623)	
BEGINNING OF YEAR, as Restated	\$4,939,660,998	\$452,301,334	\$5,391,962,332	\$4,685,592,490
END OF YEAR	\$4,909,919,352	\$434,849,339	\$5,344,768,691	\$5,392,735,955

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

Statement of Fiduciary Net Position | December 31, 2018

			DEFINED BENEFIT SYSTEM			
	AFFILIATED LOCAL PLANS	STATEWIDE DEATH & DISABILITY	STATEWIDE DEFINED BENEFIT PLAN	STATEWIDE HYBRID DB COMPONENT	COLORADO SPRINGS FIRE COMPONENT	COLORADO SPRINGS POLICE COMPONENT
ASSETS						
Cash & Short Term Investments (Note 5)	\$73,091,703	\$19,328,171	\$123,880,592	\$3,561,497	\$6,801,035	\$15,290,946
Investments (Note 5)						
Fixed Income	\$227,552,464	\$60,173,353	\$385,670,778	\$11,087,818	\$21,173,297	\$47,604,478
Global Equity	478,791,832	126,610,406	811,487,667	23,329,814	44,550,613	100,164,310
Equity Long/Short	109,324,048	28,909,353	185,289,536	5,326,970	10,172,382	22,870,832
Real Assets	117,700,022	31,124,273	199,485,683	5,735,101	10,951,749	24,623,104
Real Estate	66,835,199	17,673,718	113,276,661	3,256,640	6,218,880	13,982,072
Absolute Return	127,667,689	33,760,095	216,379,537	6,220,790	11,879,221	26,708,362
Private Capital	216,379,252	57,218,739	366,733,687	10,543,388	20,133,652	45,267,017
Managed Futures	58,758,844	15,538,028	99,588,326	2,863,108	5,467,392	12,292,480
Domestic Equity Funds						
International Equity Funds						
Balanced Funds						
Fixed Income Funds						
Money Market & Stable Value Funds						
Participant Brokerage Funds						
Securities Lending Collateral	16,095,582	4,256,272	27,279,845	784,280	1,497,661	3,367,231
Total Investments	\$1,419,104,932	\$375,264,237	\$2,405,191,720	\$69,147,909	\$132,044,847	\$296,879,886
Total Cash and Investments	\$1,492,196,635	\$394,592,408	\$2,529,072,312	\$72,709,406	\$138,845,882	\$312,170,832
Receivables						
Other	\$5,197	\$1,374	\$8,808	\$253	\$484	\$1,087
Assets Sold-Pending Trades	18,752,734	4,956,976	31,774,455	913,505	1,744,463	3,922,123
Contributions	1,147,886	556,947	2,433,230	38,729	126,229	298,861
Accrued Interest and Dividends	2,994,710	791,913	5,075,631	145,921	278,652	626,500
Total Receivables	\$22,900,527	\$6,307,210	\$39,292,124	\$1,098,408	\$2,149,828	\$4,848,571
Property and Equipment, at Cost, Net of Accumulated Depreciation/Amortization (Note 8)	\$1,248,357	\$330,112	\$2,115,798	\$60,828	\$116,157	\$261,160
Other Assets	196,729	52,023	333,430	9,586	18,305	41,156
DEFERRED OUTFLOWS OF RESOURCES						
Changes in Net Pension and Other Post-Employment Benefits Liability (Notes 9 & 11)	2,762,995	730,639	4,682,902	134,631	257,091	578,025
TOTAL ASSETS AND DEFERRED OUTFLOWS	\$1,519,305,243	\$402,012,392	\$2,575,496,566	\$74,012,859	\$141,387,263	\$317,899,744
LIABILITIES						
Payables						
Accounts, Employee and Participants Payable	\$858,857	\$227,114	\$1,455,647	\$41,849	\$79,915	\$179,675
Assets Purchased-Pending Trades	7,566,828	1,994,910	12,797,114	367,932	702,708	1,579,924
Securities Lending Liabilities (Note 5)	16,095,582	4,256,272	27,279,845	784,280	1,497,661	3,367,231
Total Payables	\$24,521,267	\$6,478,296	\$41,532,606	\$1,194,061	\$2,280,284	\$5,126,830
Net Pension and Other Post-Employment Benefits Liability (Notes 9 & 11)	\$11,451,773	\$3,028,276	\$19,409,212	\$558,004	\$1,065,564	\$2,395,736
DEFERRED INFLOWS OF RESOURCES						
Changes in Net Pension and Other Post-Employment Benefits Liability (Notes 9 & 11)	\$425,818	\$112,602	\$721,704	\$20,749	\$39,622	\$89,082
TOTAL LIABILITIES AND DEFERRED INFLOWS	\$36,398,858	\$9,619,174	\$61,663,522	\$1,772,814	\$3,385,470	\$7,611,648
FIDUCIARY NET POSITION RESTRICTED FOR PENSION AND OTHER POST-EMPLOYMENT BENEFITS						
	\$1,482,906,385	\$392,393,218	\$2,513,833,044	\$72,240,045	\$138,001,793	\$310,288,096

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

FPPA STAFF HEALTH SUBSIDY	TOTAL MEMBERS' BENEFIT INVESTMENT FUND	MEMBERS' STATEWIDE MONEY PURCHASE	SELF-DIRECTED ASSETS FOR AFFIL. LOCAL & DB SYSTEM	FPPA MULTI- EMPLOYER DEFERRED COMPENSATION PLAN	TOTAL MEMBERS' SELF-DIRECTED INVESTMENT FUND	COMBINED TOTALS 2018
\$12,665	\$241,966,609		\$116,788	\$62,283	\$179,071	\$242,145,680
\$39,430	\$753,301,618					\$753,301,618
82,963	1,585,017,605					1,585,017,605
18,943	361,912,064					361,912,064
20,395	389,640,327					389,640,327
11,581	221,254,751					221,254,751
22,122	422,637,816					422,637,816
37,493	716,313,228					716,313,228
10,182	194,518,360					194,518,360
		\$3,001,591	\$53,224,138	\$48,735,116	\$104,960,845	104,960,845
		498,712	11,663,384	8,122,808	20,284,904	20,284,904
		6,449,970	122,809,140	60,551,127	189,810,237	189,810,237
		538,560	15,062,676	7,934,826	23,536,062	23,536,062
		365,883	29,616,939	5,434,197	35,417,019	35,417,019
		46,596	53,229,331	4,346,485	57,622,412	57,622,412
2,789	53,283,660					53,283,660
\$245,898	\$4,697,879,429	\$10,901,312	\$285,605,608	\$135,124,559	\$431,631,479	\$5,129,510,908
\$258,563	\$4,939,846,038	\$10,901,312	\$285,722,396	\$135,186,842	\$431,810,550	\$5,371,656,588
\$1	\$17,204		\$633,335	\$1,819,471	\$2,452,806	\$2,470,010
3,241	62,067,497					62,067,497
	4,601,882	\$33,063	199,194	353,726	585,983	5,187,865
519	9,913,846					9,913,846
\$3,761	\$76,600,429	\$33,063	\$832,529	\$2,173,197	\$3,038,789	\$79,639,218
\$216	\$4,132,628					\$4,132,628
34	651,263					651,263
479	9,146,762					9,146,762
\$263,053	\$5,030,377,120	\$10,934,375	\$286,554,925	\$137,360,039	\$434,849,339	\$5,465,226,459
\$149	\$2,843,206					\$2,843,206
1,286	25,010,702					25,010,702
2,789	53,283,660					53,283,660
\$4,224	\$81,137,568					\$81,137,568
\$1,984	\$37,910,549					\$37,910,549
\$74	\$1,409,651					\$1,409,651
\$6,282	\$120,457,768					\$120,457,768
\$256,771	\$4,909,919,352	\$10,934,375	\$286,554,925	\$137,360,039	\$434,849,339	\$5,344,768,691

Statement of Changes in Fiduciary Net Position | For the Year Ended December 31, 2018

	AFFILIATED LOCAL PLANS	STATEWIDE DEATH & DISABILITY	DEFINED BENEFIT SYSTEM			
			STATEWIDE DEFINED BENEFIT PLAN	STATEWIDE HYBRID DB COMPONENT	COLORADO SPRINGS FIRE COMPONENT	COLORADO SPRINGS POLICE COMPONENT
ADDITIONS						
Contributions						
Employer	\$49,314,933		\$51,658,437	\$1,487,515	\$3,888,479	\$7,400,176
Member	125,265	\$22,708,031	148,063,507	3,529,530	922,006	2,222,102
Contributions for Service Reinstatement			38,107			
Affiliations						
State Contributions	2,963,908					
Total Contributions	\$52,404,106	\$22,708,031	\$199,760,051	\$5,017,045	\$4,810,485	\$9,622,278
Investment Income (Loss)						
Net Appreciation (Depreciation) in Fair Value of Investments	\$(11,588,034)	\$(3,385,494)	\$(23,638,218)	\$(685,186)	\$(1,186,705)	\$(2,708,737)
Interest	6,494,673	1,674,392	10,329,310	296,761	590,046	1,319,300
Dividends	11,937,380	3,080,972	19,068,392	548,503	1,085,613	2,428,474
Other Income	8,785,222	2,254,201	13,875,096	398,915	794,665	1,776,554
Participant Brokerage Income (Loss)						
Gain on Securities Lending						
Total Investment Income (Loss)	\$15,629,241	\$3,624,071	\$19,634,580	\$558,993	\$1,283,619	\$2,815,591
Less Investment Consulting	\$434,179	\$112,293	\$696,218	\$20,021	\$39,566	\$88,535
Less Investment Management Fees	11,746,561	3,038,059	18,835,922	541,673	1,070,425	2,395,283
Less Investment Legal Fees	127,773	33,046	204,888	5,892	11,644	26,055
Less Investment Closing Costs	12,072	3,122	19,359	557	1,100	2,462
Less FPPA Investment Personnel Services	974,745	252,102	1,563,029	44,949	88,825	198,764
Less Bank Fees	163,995	42,415	262,970	7,562	14,944	33,441
Less Other Misc. Investment Expenses	237,384	61,395	380,651	10,947	21,632	48,406
Net Investment Income (Loss)	\$1,932,532	\$81,639	\$(2,328,457)	\$(72,608)	\$35,483	\$22,645
Securities Lending						
Income	\$242,132	\$64,029	\$410,382	\$11,798	\$22,530	\$50,655
Borrowers Rebates	(169,204)	(44,744)	(286,778)	(8,245)	(15,744)	(35,398)
Agent Fees	(18,220)	(4,818)	(30,881)	(888)	(1,695)	(3,812)
Net Securities Lending Income	\$54,708	\$14,467	\$92,723	\$2,665	\$5,091	\$11,445
Total Additions	\$54,391,346	\$22,804,137	\$197,524,317	\$4,947,102	\$4,851,059	\$9,656,368
DEDUCTIONS						
Benefit Payments	\$171,209,386	\$30,235,382	\$77,206,066	\$1,771,264	\$8,350,312	\$13,925,233
Refunds of Contributions (including interest earned)	1,103,109	38,107	3,406,375	326,973		
Administrative Costs	1,860,987	1,724,046	2,757,484	77,385	61,737	118,463
Pension and Other Post-Employment Benefits Expense	2,532,316	880,355	5,372,306	150,498	241,203	556,064
Total Deductions	\$176,705,798	\$32,877,890	\$88,742,231	\$2,326,120	\$8,653,252	\$14,599,760
NET INCREASE (DECREASE) IN FIDUCIARY NET POSITION	\$(122,314,452)	\$(10,073,753)	\$108,782,086	\$2,620,982	\$(3,802,193)	\$(4,943,392)
FIDUCIARY NET POSITION RESTRICTED FOR PENSION AND OTHER POST-EMPLOYMENT BENEFITS						
BEGINNING OF YEAR	\$1,605,454,528	\$402,528,768	\$2,405,447,033	\$69,630,450	\$141,825,730	\$315,280,377
Effect of Change in Accounting Principle (Note 3)	(233,691)	(61,797)	(396,075)	(11,387)	(21,744)	(48,889)
BEGINNING OF YEAR, as Restated	\$1,605,220,837	\$402,466,971	\$2,405,050,958	\$69,619,063	\$141,803,986	\$315,231,488
END OF YEAR	\$1,482,906,385	\$392,393,218	\$2,513,833,044	\$72,240,045	\$138,001,793	\$310,288,096

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

FPPA STAFF HEALTH SUBSIDY	TOTAL MEMBERS' BENEFIT INVESTMENT FUND	MEMBERS' STATEWIDE MONEY PURCHASE	SELF-DIRECTED ASSETS FOR AFFIL. LOCAL & DB SYSTEM	FPPA MULTI- EMPLOYER DEFERRED COMPENSATION PLAN	TOTAL MEMBERS' SELF-DIRECTED INVESTMENT FUND	COMBINED TOTALS 2018
\$5,864	\$113,755,404	\$430,442	\$1,682,107	\$1,607,001	\$3,719,550	\$117,474,954
	177,570,441	417,436	37,568,521	12,424,200	50,410,157	227,980,598
	38,107					38,107
			85,589,804		85,589,804	85,589,804
	2,963,908					2,963,908
\$5,864	\$294,327,860	\$847,878	\$124,840,432	\$14,031,201	\$139,719,511	\$434,047,371
\$(2,132)	\$(43,194,506)	\$(1,018,759)	\$(21,725,153)	\$(14,757,629)	\$(37,501,541)	\$(80,696,047)
1,097	20,705,579	1,550	191,585	18,933	212,068	20,917,647
2,022	38,151,356	435,303	8,504,678	6,255,798	15,195,779	53,347,135
1,478	27,886,131					27,886,131
		1,460	(3,595,878)	(417,954)	(4,012,372)	(4,012,372)
\$2,465	\$43,548,560	\$(580,446)	\$(16,624,768)	\$(8,900,852)	\$(26,106,066)	\$17,442,494
\$74	\$1,390,886					\$1,390,886
1,991	37,629,914					37,629,914
21	409,319					409,319
2	38,674					38,674
165	3,122,579					3,122,579
28	525,355					525,355
40	760,455					760,455
\$144	\$(328,622)	\$(580,446)	\$(16,624,768)	\$(8,900,852)	\$(26,106,066)	\$(26,434,688)
\$42	\$801,568					\$801,568
(29)	(560,142)					(560,142)
(3)	(60,317)					(60,317)
\$10	\$181,109					\$181,109
\$6,018	\$294,180,347	\$267,432	\$108,215,664	\$5,130,349	\$113,613,445	\$407,793,792
\$7,071	\$302,704,714					\$302,704,714
	4,874,564	\$1,775,098	\$121,239,015	\$6,823,413	\$129,837,526	134,712,090
7,485	6,607,587	17,682	981,502	228,730	1,227,914	7,835,501
2,386	9,735,128					9,735,128
\$16,942	\$323,921,993	\$1,792,780	\$122,220,517	\$7,052,143	\$131,065,440	\$454,987,433
\$(10,924)	\$(29,741,646)	\$(1,525,348)	\$(14,004,853)	\$(1,921,794)	\$(17,451,995)	\$(47,193,641)
\$267,735	\$4,940,434,621	\$12,459,723	\$300,559,778	\$139,281,833	\$452,301,334	\$5,392,735,955
(40)	(773,623)					(773,623)
\$267,695	\$4,939,660,998	\$12,459,723	\$300,559,778	\$139,281,833	\$452,301,334	\$5,391,962,332
\$256,771	\$4,909,919,352	\$10,934,375	\$286,554,925	\$137,360,039	\$434,849,339	\$5,344,768,691

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 firefighters 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 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 (Fidelity Investments). This fund includes the assets in the Fire & Police Members' Statewide Money Purchase Plan and the FPPA Multi-Employer 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 Deferred 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 **FPPA Multi-Employer 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. Any expenses that are incurred by FPPA which are directly related to the administration of a specific plan is paid from that plan's assets. The defined benefit plans' administrative expenses are allocated on a pro-rata share by member count, as of December 31 of the prior year. 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 221 local plans affiliated with FPPA as of December 31, 2018. 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 Old Hire Deferred Retirement Option Plan (DROP) assets only) have elected to affiliate with FPPA for plan administration and investment purposes 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, 2018, are as follows:

Deferred Retirement Option Plan (DROP) Old Hire Members	3
Retirees and Beneficiaries Currently Receiving Benefits	6,456
Terminated Vested Members Entitled To Benefits But Not Yet Receiving Them	415
Old Hire Members Fully Vested	2
Volunteer Firefighter Members	2,545
Total Members	9,421

B. 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 5, 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 268 participating employer departments. Included in that number are 7 contributing employers as of December 31, 2018, 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 or dependent children of active members who were eligible to retire, but were still working. 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. Contributions may be increased 0.1 percent biennially by the FPPA Board. The contributions increased to 2.7 percent of base salary as of January 1, 2017. The contribution rate increased to 2.8 percent of base salary as of January 1, 2019. This percentage can vary depending on actuarial experience. All contributions are made by members or on behalf of members. The 2.7 percent contribution may be paid entirely by the employer or member, or it may be split between the employer and the member as determined at the local level.

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 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 of the member's monthly base salary. Benefits will be paid to the spouse until death and to dependent children until age 23, death, marriage or other termination of dependency. Benefits may be extended for an incapacitated child.

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.

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

Occupational Disability means a member is unable to perform their 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, the member shall receive 70 percent of their base salary preceding disability.

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

Total disability and permanent occupational disability benefits are offset by the Money Purchase, SRA or DROP 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 1. 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, 2018, are as follows:

Retirees and Beneficiaries Currently Receiving Benefits	1,238
Active Non-Vested Members	12,747
Total Members	13,985

C. 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 5, 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 235 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 unless the employer elects into and is determined to be eligible to participate in the Statewide Money Purchase 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 (SRA) assets from eligible retired members).

2. Contributions

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 8.0 percent of base salary, respectively, 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 12.0 percent of base salary. Employer contributions will remain at 8.0 percent resulting in a combined contribution rate of 20.0 percent in 2022. In 2018, the total combined member and employer contribution rate was 18.0 percent.

Contributions from members and employers of plans reentering the system are established by resolution and approved by the FPPA Board of Directors. The reentry group had a combined contribution rate of 20.0 percent of base salary through 2014. It is a local decision on who pays the additional 4.0 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 24.0 percent. In 2018, the total combined member and employer contribution rate was 22.0 percent.

The contribution rate for members and employers of affiliated social security employers was 4.0 percent of base salary for a total contribution rate of 8.0 percent 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 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. In 2018, the total combined member and employer contribution rate was 9.00 percent.

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 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 1.0 percent of the average of the member's highest three years base salary for each year of credited service up to ten years plus 1.25 percent for each year thereafter.

Benefits paid to retired members and beneficiaries may be increased annually on October 1. The amount is based on the FPPA Board of Director's discretion and can range from 0 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.

In addition, upon retirement a member may receive additional benefits credited to the member's "Separate Retirement Account" each year after January 1, 1988. Annually, at the discretion of the FPPA 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). 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. Members do not vest in amounts credited to their Separate Retirement Account until retirement or disability. 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 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 of the entry members only. Effective July 1, 2018, 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 after completion of 30 years of service or attainment of age 50 with at least five years of credited service. The early retirement benefit equals the normal retirement benefit reduced on an actuarially equivalent basis.

Upon termination, a member may elect to have their 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, 2018, are as follows:

Retirees and Beneficiaries Receiving Benefits	1,288
Terminated Members Entitled to Benefits But Not Yet Receiving Such Benefits	1,181
Deferred Retirement Option Plan (DROP) Members	296
Fully Vested Members	453
Partially Vested Members	4,727
Non-Vested Members	3,218
Total Members	11,163

D. 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, other fire district personnel whose services are auxiliary to fire protection, or chiefs who have opted out of the Statewide Defined Benefit Plan. The Plan is comprised of two components: Defined Benefit and Money Purchase. With the latter component, members have the option of choosing among various investment options offered by an outside investment manager. The Plan currently has 44 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 for a total of 16 percent. 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, 2018 through June 30, 2019 is 13.40 percent. The Defined Benefit Component contribution rate from July 1, 2017 through June 30, 2018 was 14.80 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 percent per year after the first year of service and to be 100 percent vested after five years of service or the attainment of age 55. 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. Additional voluntary contributions from the employer are made on a pre-tax basis.

3. Benefits

A member is eligible for a normal retirement pension upon completing 25 years of credited service and attaining age 55.

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 and beneficiaries of the Defined Benefit Component may be increased annually on October 1. The amount is based on the FPPA 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.

A member is eligible for early retirement within the Defined Benefit Component after completion of 30 years of service or attainment of age 50 with at least five years of credited service. The early retirement benefit equals the normal retirement benefit reduced on an actuarially equivalent basis.

Upon termination, a member may elect to have their member 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, 2018, are as follows:

Defined Benefit Component: Retirees and Beneficiaries Receiving Benefits	44
Defined Benefit Component: Terminated Members Entitled to Benefit But Not Yet Receiving Such Benefits	38
Money Purchase Component: Retirees and Beneficiaries Receiving Benefits and Terminated Members Entitled to Benefits But Not Yet Receiving Such Benefits	123
Deferred Retirement Option Plan (DROP) Members	5
Fully Vested Member	49
Partially Vested Members	257
Non-Vested Members	37
Total Members	553

E. 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, 2018, the Fire Component actuarially determined contribution is \$4,981,787. Of this amount the members of the Plan contribute 10 percent of basic salary and the employer remitted the remainder. Effective January 1, 2019, the Fire Component actuarially determined contribution is \$4,519,669. For the Police Component, the actuarially determined contribution for 2018 was \$9,479,498. Of this amount the members of the plan contributed 8 percent of basic salary and the employer remitted the remainder. Effective January 1, 2019, the actuarially determined contribution is \$8,037,168.

3. Benefits*Police Component*

A member is eligible for a normal retirement pension at any time after age 50, if the member has at least 25 full years of credited 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, 2018, 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 2019.

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

A member is 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, 2018, 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 2019.

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, 2018, are as follows:

Retirees and Beneficiaries Receiving Benefits	408
Terminated Members Entitled to Benefits But Not Yet Receiving Such Benefits	27
Deferred Retirement Option Plan (DROP) Members	85
Fully Vested Members	44
Partially Vested Members	320
Non-Vested Members	0
Total Members	884

F. 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. As of December 31, 2018, there are 55 total active members with 18 active employees meeting the eligibility requirements. In addition, there are 4 inactive vested employees not yet receiving benefits and 5 retirees receiving a benefit. The program began in March 1993.

2. Contributions and Benefit Provisions

FPPA provides a health care premium subsidy to eligible retired staff that are enrolled in a health care program (known as PERACare). 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 amount of assistance is prorated for years of service less than 20. The subsidy is \$11.50 per month for each year of PERA covered service. This amount decreases to \$5.75 per month for each year of PERA covered service when the beneficiary becomes Medicare eligible. Currently, the maximum monthly subsidy paid by PERA is \$230 for pre-Medicare premiums and \$115 for Medicare-covered premiums. The PERA subsidy can be increased by an act of the Colorado General Assembly. The PERA retiree health plan does not issue a publicly available financial report.

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

G. 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 investments 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 49 contributing employer departments as of December 31, 2018. 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 base 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, 2018, are as follows:

Retirees and Beneficiaries Receiving Benefits and Terminated Members Entitled to Benefit But Not Yet Receiving Such Benefits	128
Fully Vested Members	62
Partially Vested Members	77
Non-Vested Members	20
Total Members	287

H. 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 investment 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 D.

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 C and E.

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 \$109,545,616 as of December 31, 2018.

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

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

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

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 analyzed public market performance and utilized 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 2018 financial statements was a positive \$8,056,828.
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 (SDTF), 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

Investment related expenses are allocated to each Plan according to its proportionate share of total assets. Other administrative expenses are allocated to each Plan according to its proportionate share of total member headcount. 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 Pronouncement

In June 2017, the GASB issued Statement No. 87, Leases. The statement addresses accounting and financial reporting for leases by governments. Statement No. 87 requires recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognize as inflows of resources or outflows of resources based on the payment provisions of the contract. The statement establishes a single model for lease accounting based on the foundational principle that leases are financings of the right to use an underlying asset. This standard is effective for financial statements for fiscal years beginning after December 15, 2019. Management has evaluated the impact of the new standard and expects to have minimal impact on FPPA financial reporting.

NOTE 3 | CHANGE IN ACCOUNTING POLICY

GASB Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions, was adopted effective January 1, 2018. 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. The adoption of this standard resulted in a restatement of the beginning fiduciary net position restricted for pension and other post-employment benefits for the FPPA Members' Benefit Investment Fund in the amount of \$(773,623). The purpose of the restatement was to record the beginning net other post-employment benefits liability of \$(829,002) and the beginning deferred outflows of resources for contributions subsequent to the measurement date of \$55,379.

NOTE 4 | 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	\$2,530,393,289	\$2,526,692,808	\$3,700,481	99.85%
Statewide Hybrid Plan – Defined Benefit Component	56,835,495	72,645,438	(15,809,943)	127.82%
Colorado Springs New Hire Pension Plan – Fire Component	174,171,165	138,638,938	35,532,227	79.60%
Colorado Springs New Hire Pension Plan – Police Component	359,426,001	311,369,449	48,056,552	86.63%
Total	\$3,120,825,950	\$3,049,346,633	\$71,479,317	97.71%

*The Plan Fiduciary Net Position used to calculate the Net Pension Liability is the net invested plan assets as of December 31, 2018. It does not include the impact of contributions not received during 2018 and the net pension liability associated with the FPPA Staff participation in the Public Employees' Retirement Association of Colorado pension and other post-employment benefits plans further described in Note 9, FPPA Employee Retirement Plan and Note 11, FPPA Employee Other Post-Employment Benefits.

The Statewide Defined Benefit Plan and the Statewide Hybrid Plan - Defined Benefit Component are cost-sharing multiple-employer defined benefit pension plans. The Colorado Springs New Hire Pension Plan is a single employer defined benefit pension plan with a fire component and police component.

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, 2018, is shown on the previous page. 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, 2018, 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
Valuation Date	January 1, 2018	January 1, 2018	January 1, 2018
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	20 Years, Beginning January 1, 2018
Asset Valuation Method	5-Year Smoothed Fair Value	5-Year Smoothed Fair Value	5-Year Smoothed Fair Value
Actuarial Assumptions:			
Investment Rate of Return*	7.50%	7.50%	7.50%
Projected Salary Increases*	4.0% - 14.0%	4.0% - 14.0%	4.0% - 14.0%
Cost of Living Adjustment (COLA)	0.00%	0.00%	2.4% (Fire Component) 2.6% (Police Component)
*Includes inflation at	2.50%	2.50%	2.50%

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 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	37%	7.60%
Equity Long/Short	9%	6.10%
Private Markets	24%	9.00%
Fixed Income	15%	2.90%
Absolute Return	9%	5.40%
Managed Futures	4%	6.10%
Cash	2%	2.50%
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 expected 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, 2018, 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	\$337,578,708	\$3,700,481	\$(273,066,715)
Statewide Hybrid Plan - Defined Benefit Component	(9,395,198)	(15,809,943)	(21,201,938)
Colorado Springs New Hire Pension Plan - Fire Component	58,634,727	35,532,227	16,525,820
Colorado Springs New Hire Pension Plan - Police Component	99,555,967	48,056,552	6,141,136
Total	\$486,374,204	\$71,479,317	\$(271,601,697)

* 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 5 | DEPOSITS AND PENSION & OPEB 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 FPPA Board conducts a formal asset liability study and investment allocation review at least every 2 years.

The FPPA Board establishes and continually updates interim investment allocation targets. Beginning in June 2017, the following investment allocation targets were in effect: global equity, 37 percent; equity long/short, 9 percent; fixed income and cash, 17 percent; absolute return, 9 percent; managed futures, 4 percent; and private markets, 24 percent. There were no significant investment policy changes in 2018.

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, 2018.

The table below presents FPPA combined total deposits and short term investments as of December 31, 2018.

Deposits with banks	\$12,342,596
Short Term Investments (maturity of 12 months or less)	229,803,084
Total Deposits and Short Term Investments	\$242,145,680

B. Pension & Other Postemployment Benefits Plan Cash and 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, 2018 are summarized in the following table:

Cash and Short Term Investments	\$179,071
Investments	
Domestic Equity Funds	\$104,960,845
International Equity Funds	20,284,904
Balanced Funds	189,810,237
Fixed Income Funds	23,536,062
Money Market & Stable Value Funds	35,417,019
Participant Brokerage Funds	57,622,412
Total Investments	\$431,631,479
Total Cash and Investments	\$431,810,550

The investments reflected on the Statement of Fiduciary Net Position for the Fire & Police Members' Benefit Investment Fund at December 31, 2018 are summarized in the following table:

Cash and Short Term Investments	\$241,966,609
Investments	
Fixed Income	\$753,301,618
Global Equity	1,585,017,605
Equity Long/Short	361,912,064
Real Assets	389,640,327
Real Estate	221,254,751
Absolute Return	422,637,816
Private Capital	716,313,228
Managed Futures	194,518,360
Securities Lending Collateral	53,283,660
Total Investments	\$4,697,879,429
Total Cash and Investments	\$4,939,846,038

The annual money-weighted rate of return for the Fire & Police Members' Benefit Investment Fund was 0.10 percent for 2018. 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 following table shows the fair value leveling of the investments for the Funds.

	Fair Value as of 12/31/2018	Fair Value Measures Using		
		Quoted Prices in Active Markets Using Level 1	Significant Other Observable Inputs Level 2	Significant Unobservable Inputs Level 3
Fire & Police Members’ Benefit Investment Fund				
Investments Measured by Fair Value Level				
ASSETS				
Short-Term Securities				
Short-Term	\$15,032,168		\$15,032,168	
Short-Term Investment Fund	180,502,881	\$180,502,881		
Total Short-Term Securities	\$195,535,049	\$180,502,881	\$15,032,168	
Global Equity				
U.S. Common Stocks	\$647,406,419	\$647,406,419		
Foreign Stocks	477,398,394	477,398,394		
Preferred Stocks	1,742,149	1,742,149		
Total Global Equity	\$1,126,546,962	\$1,126,546,962		
Fixed Income				
Asset Backed Securities	\$18,597,003		\$18,597,003	
Corporate Bonds	171,748,947		171,748,947	
Government & Agency	132,063,740	\$111,409,032	20,654,708	
Mortgages-Agency	37,377,996		37,377,996	
Mortgages-Non-Agency	9,594,968		9,594,968	
International Bonds	40,160,219		40,160,219	
Revenue Bonds	1,355,497		1,355,497	
Treasury Inflation Protected Securities	1,026,148	1,026,148		
Private Placements	85,555,763		85,555,763	
Preferred Stock	4,654,186	2,788,418	1,865,768	
Total Fixed Income	\$502,134,467	\$115,223,598	\$386,910,869	
Total Investment Assets	\$1,824,216,478	\$1,422,273,441	\$401,943,037	
DERIVATIVES				
Futures Contracts	\$(147,370)	\$(147,370)		
Options Contracts	129,589		\$129,589	
Swaps	2,745,285		2,745,285	
Total Derivatives	\$2,727,504	\$(147,370)	\$2,874,874	
INVESTMENTS MEASURED AT THE NET ASSET VALUE (NAV)				
Commingled Global Equity	\$460,196,189			
Commingled Fixed Income	246,714,100			
Absolute Return	422,637,816			
Equity Long/Short	361,912,064			
Managed Futures	194,518,360			
Private Capital	716,313,228			
Real Assets	389,640,327			
Real Estate	221,254,751			
Total Investments Measured at the NAV	\$3,013,186,835			
OTHER INVESTMENTS				
Cash	\$46,431,561			
Total Other Investments	\$46,431,561			
TOTAL INVESTMENTS MEASURED AT FAIR VALUE	\$4,886,562,378	\$1,422,126,071	\$404,817,911	

	Fair Value Measures Using			
	Fair Value as of 12/31/2018	Quoted Prices in Active Markets Using Level 1	Significant Other Observable Inputs Level 2	Significant Unobservable Inputs Level 3
Fire & Police Members' Self-Directed Investment Fund				
Investments Measured by Fair Value Level				
ASSETS				
Global Equity				
U.S. Common Stocks	\$15,282,177	\$15,282,177		
Exchange Traded Funds/Units	16,858,026	16,858,026		
Warrants	38	38		
Total Global Equity	\$32,140,241	\$32,140,241		
Fixed Income				
Corporate Bonds	\$25,528		\$25,528	
Revenue Bonds	129,203		129,203	
Total Fixed Income	\$154,731		\$154,731	
Total Investment Assets	\$32,294,972	\$32,140,241	\$154,731	
DERIVATIVES				
Options Contracts	\$1,573		\$1,573	
Total Derivatives	\$1,573		\$1,573	
INVESTMENTS MEASURED AT THE NET ASSET VALUE (NAV)				
Domestic Equity Funds	\$104,960,845			
International Equity Funds	20,284,904			
Balanced Funds	189,810,237			
Fixed Income Funds	23,536,062			
Money Market & Stable Value Funds	35,417,019			
Participant Brokerage Funds	25,325,867			
Total Investments Measured at the NAV	\$399,334,934			
OTHER INVESTMENTS				
Cash	\$179,071			
Total Other Investments	\$179,071			
TOTAL INVESTMENTS MEASURED AT FAIR VALUE	\$431,810,550	\$32,140,241	\$156,304	

Fire & Police Members' Benefit Investment Fund	Fair Value as of 12/31/2018	Unfunded Commitments	Redemption Frequency (If Currently Eligible)	Redemption Notice Period (Days)
INVESTMENTS MEASURED AT THE NET ASSET VALUE (NAV)				
Commingled Global Equity ¹	\$460,196,189		Daily, Monthly	1-30
Commingled Fixed Income ²	246,714,100		Daily, Monthly	3-30
Absolute Return				
Alternative Beta ³	80,808,706		Bi-weekly, Monthly	15-30
Long Short ⁴	37,968,084		Quarterly	65
Global Macro ⁵	140,437,377		Monthly, Quarterly	30-60
Multi-Strategy ⁶	131,202,297		Quarterly	45-90
Convertible Arbitrage ⁷	32,221,352		Quarterly	65
Equity Long/Short				
Activist ⁸	41,055,290		Quarterly	65
Event Driven ⁹	2,919,290		Two Year	90
Long Short ¹⁰	317,937,484		Quarterly, Annual	45-90
Managed Futures				
Alternative Beta ¹¹	98,949,822		Daily, Weekly	1-3
Hedge Fund ¹²	95,568,538		Monthly	5-30
Private Capital ¹³	716,313,228	\$472,489,950		
Real Assets ¹³	389,640,327	183,035,043		
Real Estate ¹³	221,254,751	44,127,156		
Total Investments Measured at the NAV	\$3,013,186,835	\$699,652,149		

Fire & Police Members' Self-Directed Investment Fund

INVESTMENTS MEASURED AT THE NET ASSET VALUE (NAV)				
Domestic Equity Funds ¹⁴	\$104,960,845		Daily	None
International Equity Funds ¹⁵	20,284,904		Daily	None
Balanced Funds ¹⁶	189,810,237		Daily	None
Fixed Income Funds ¹⁷	23,536,062		Daily	None
Money Market & Stable Value Funds ¹⁸	35,417,019		Daily	None
Participant Brokerage Funds ¹⁹	25,325,867		Daily	None
Total Investments Measured at the NAV	\$399,334,934			

Fire & Police Members' Benefit Investment Fund

¹ **Commingled Global Equity** – Consisting of seven 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.

² **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.

³ **Alternative Beta** – Consisting of two funds. These funds target systematic exposure to broad hedge fund strategies and style risk premia.

⁴ **Long Short** – Consisting of one fund. This fund will maintain both long and short exposures within the equity markets.

- ⁵ **Global Macro** – Consisting of three funds. These strategies maintain systematic or discretionary exposure to the equity, fixed income, commodity and currency markets.
- ⁶ **Multi-Strategy** – Consisting of three funds. These funds target a relative value approach in actively allocating to various hedge fund strategies.
- ⁷ **Convertible Arbitrage** – Consisting of one fund. This fund's strategy involves the simultaneous purchase of convertible securities and the short sale of the same issuer's common stock.
- ⁸ **Activist** – Consisting of one fund. These fund target undervalued companies where the investment manager can act as a catalyst for change.
- ⁹ **Event Driven** – Consisting of one fund. These fund 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.
- ¹¹ **Alternative Beta** – Consisting of two funds. These funds target systematic exposure to trend following strategies in securities markets.
- ¹² **Hedge Fund** – Consisting of two funds. These funds target active exposure to trend following strategies in securities markets.
- ¹³ **Private Capital, Real Assets and Real Estate** – Private Capital consisting of 84 funds with exposure to buyout funds, venture capital and special situations. Real Assets is comprised of 21 funds with exposure to energy, lending and diversified assets. Real Estate is comprised of 15 funds with invests in U.S. and global real estate.

Fire & Police Members' Self-Directed Investment Fund

- ¹⁴ **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.
- ¹⁶ **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.
- ¹⁷ **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.
- ¹⁸ **Money Market & Stable Value Funds** – Consisting of two funds. These funds target stable cash returns.
- ¹⁹ **Participant Brokerage 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, 2018, FPPA had exposure to cash deposits in the amount of \$241,966,609 and invested collateral within the securities lending program of \$53,283,660 which 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.

There were no investments greater than 5 percent with any one organization within the Fire & Police Members' Benefit Investment Fund and 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, 2018:

Credit Quality Rating	Fixed Income Portfolio	
	Fair Value	% of Portfolio
<i>Fire & Police Members' Benefit Investment Fund</i>		
Aaa/AAA	\$190,177,953	18.04%
Aa/AA	135,152,083	12.82%
A	122,427,042	11.61%
Baa/BBB	147,492,695	13.99%
Ba/BB	40,801,194	3.87%
B	23,836,078	2.26%
Caa/CCC	2,597,112	0.25%
Not Rated	13,185,966	1.25%
Total Credit Risk Debt Securities	\$675,670,123	64.08%
U.S. Government Securities	77,631,495	7.36%
Total Fixed Income Securities	\$753,301,618	71.44%
Cash	241,966,609	22.95%
Subtotal	\$995,268,227	94.39%
<i>*Fire & Police Members' Self-Directed Investment Fund</i>		
Fixed Income Funds	\$23,536,062	2.23%
Money Market & Stable Value Funds	35,417,019	3.36%
Cash	179,071	0.02%
Subtotal	\$59,132,152	5.61%
Total	\$1,054,400,379	100.00%

* 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, 2018:

Security Type	Fixed Income Portfolio	
	Fair Value	Effective Duration
<i>Fire & Police Members' Benefit Investment Fund</i>		
Asset Backed Securities	\$18,597,003	0.811
Corporate Bonds	340,858,998	4.278
Financial Futures	1,578,176	4.973
Fixed Income Swaps	2,745,285	3.867
Government & Agency	209,667,790	6.500
International Bonds	40,160,219	3.830
Mortgages- Non-Agency	9,594,968	2.915
Mortgages-Agency	37,377,996	4.275
Preferred Stock	4,654,186	1.448
Private Placements	85,555,763	2.856
Puts/Calls/Options	129,589	3.094
Revenue Bonds	1,355,496	8.866
Treasury Inflation Protected Securities	1,026,149	3.080
Cash	241,966,609	0.003
Subtotal	\$995,268,227	
<i>Fire & Police Members' Self-Directed Investment Fund</i>		
Fixed Income Funds	\$23,536,062	4.841
Money Market & Stable Value Funds	35,417,019	1.592
Cash	179,071	0.003
Subtotal	\$59,132,152	
Total	\$1,054,400,379	3.446

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, 2018 is summarized in the following table (reported in U.S. Dollars):

Currency	Cash	Global Equity	Fixed Income	Private Capital	Real Assets	Total
Australian Dollar		\$28,239,226	\$3,535,627			\$31,774,853
Brazilian Real		6,371,049	2,606,843			8,977,892
British Pound		79,108,560		\$33,296,384		112,404,944
Canadian Dollar		51,559,073	2,549,983			54,109,056
Danish Krone		9,697,106				9,697,106
Euro Currency		153,699,023	17,921,027	39,742,055	\$46,796,908	258,159,013
Hong Kong Dollar		81,385,236				81,385,236
Indian Rupee		12,872,164				12,872,164
Indonesian Rupiah		3,625,385	3,292,073			6,917,458
Israeli Shekel		1,161,326				1,161,326
Japanese Yen		116,653,357				116,653,357
Korean Won		30,116,358				30,116,358
Mexican Peso		3,158,866				3,158,866
Malaysian Ringgit		1,136,560	1,402,854			2,539,414
New Zealand Dollar			3,074,775			3,074,775
Norwegian Krone		4,369,091	1,873,488			6,242,579
Philippine Peso			1,486,776			1,486,776
Polish Zioty		2,426,278				2,426,278
Singapore Dollar		5,440,839	1,478,104			6,918,943
South African Rand		9,741,637				9,741,637
Swedish Krona		13,456,024				13,456,024
Swiss Franc		42,406,701				42,406,701
Taiwan Dollar		23,101,546				23,101,546
Thailand Baht		5,629,255				5,629,255
Turkish Lira		4,083,762				4,083,762
Other (less than \$1 million in holdings)	\$1,559,719	4,780,478	2,917,314			9,257,511
Subtotal	\$1,559,719	\$694,218,900	\$42,138,864	\$73,038,439	\$46,796,908	\$857,752,830
U.S. Dollar	\$240,406,890	\$890,798,705	\$711,162,754	\$643,274,789	\$342,843,419	\$2,828,486,557
Grand Total	\$241,966,609	\$1,585,017,605	\$753,301,618	\$716,313,228	\$389,640,327	\$3,686,239,387

The above chart excludes the investment classes of equity long/short, real estate, absolute return, managed futures, 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, via a Securities Lending Authorization Agreement, authorized BNY Mellon to lend the securities to broker-dealers and banks. Securities were held at BNY Mellon Bank. FPPA began its securities lending program again in 2018 with 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 BNY Mellon 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, 2018 and at December 31, 2017 were as follows:

	December 31, 2018	December 31, 2017
Fair Value of Securities on Loan	\$72,898,207	\$0
Collateral Held	78,674,930	0
Fair Value of Invested Collateral	51,714,537	0
Securities Lending Obligations	53,283,660	0

The invested collateral and corresponding obligation are reflected in the Statement of Fiduciary Net Position as assets and liabilities, respectively. For the year ended December 31, 2018, the change in fair value of the invested collateral was \$0 in comparison to the decrease in fair value of the invested collateral for the year ended December 31, 2017 of \$(39,381). These changes are reflected in the "Gain (Loss) on Securities Lending" line on the Statement of Changes in Fiduciary Net Position. The invested collateral securities in this program were typically held to maturity and expected to mature at par.

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, 2018.

Securities Lent	Fair Value of Securities on Loan	Collateral Held
Lent for Cash Collateral:		
U.S. Government and Agency Securities	\$5,609,720	\$5,725,431
Corporate Bonds	17,140,129	17,595,972
Domestic Stocks	24,448,845	25,139,797
International Stocks	4,515,843	4,822,460
Subtotal	\$51,714,537	\$53,283,660
Lent for Securities Collateral:		
U.S. Government and Agency Securities	\$15,034,293	\$15,618,444
Corporate Bonds	203,632	208,588
Domestic Stocks	30,940,153	32,814,836
International Stocks	26,720,129	30,033,062
Subtotal	\$72,898,207	\$78,674,930
Total	\$124,612,744	\$131,958,590

At December 31, 2018, the fair value of the invested collateral was \$53,283,660.

F. Interest Income

The Statement of Changes in Fiduciary Net Position for the Fire & Police Members' Benefit Investment Fund reflects interest investment income of \$20,705,579 for the year 2018. Interest income for the Fire & Police Members' Self-Directed Investment Fund totaled \$212,068 for 2018.

NOTE 6 | FPPA MULTI-EMPLOYER DEFERRED COMPENSATION PLAN

The FPPA Multi-Employer Deferred Compensation Plan, created under Internal Revenue Code Section 457, collects voluntary deferred contributions or 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. FPPA partners with Fidelity Investments as the recordkeeper for this Plan.

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, 2018 are:

- 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 2060 Fund Institutional Shares
- Vanguard Institutional Target Retirement 2065 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 Institutional 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
- MacKay Shields High Yield CIT Class 1
- Oppenheimer Developing Markets Fund Class I
- Dodge & Cox Income Fund
- PIMCO Global Bond Opportunities Fund (Unhedged) Institutional Class
- 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, 2018, there were 2,891 participants with account balances within the plan.

In 2018, participants could contribute up to \$18,500 into the plan. Catch-up contributions up to \$6,000 in 2018 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 ½. Beginning in July 2015, participants are eligible to take loans from their account. The outstanding loan balance as of December 31, 2018 is \$1,819,471 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, 2018 is \$137,360,039.

NOTE 7 | OTHER POST EMPLOYMENT BENEFITS (OPEB)

A. Statewide Death & Disability Plan

1. Net OPEB Liability

Statewide Death & Disability Plan

Total OPEB Liability	\$441,869,052
Plan Fiduciary Net Position *	394,246,510
Net OPEB Liability (Asset)	47,622,542
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	89.2%

**The Plan Fiduciary Net Position used to calculate the Net OPEB Liability is the net invested plan assets as of December 31, 2018. It does not include the impact of contributions not received during 2018 and the net OPEB liability associated with the FPPA Staff participation in the Public Employees' Retirement Association of Colorado pension and other post-employment benefits plans further described in Note 9, FPPA Employee Retirement Plan and Note 11, FPPA Employee Other Post-Employment Benefits*

The Statewide Death & Disability Plan is a cost-sharing multiple-employer defined benefit death and disability plan.

The net OPEB liability (i.e., the plan's liability determined in accordance with Governmental Accounting Standards Board (GASB) Statement No. 74, Financial Reporting for Postemployment Benefits Other Than Pension Plans, less the fiduciary net position) as of December 31, 2018, 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 OPEB 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 OPEB 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 OPEB

Liability as of December 31, 2018, is based on the results of the most recent actuarial valuation date and rolled-forward using generally accepted actuarial procedures.

2. Summary of Actuarial Assumptions

A summary of the actuarial assumptions used to calculate the Total OPEB Liability is shown below.

Valuation Date	January 1, 2018
Actuarial Method	Entry Age Normal
Amortization Method	N/A
Amortization Period	N/A
Asset Valuation Method	5-Year Smoothed Fair Value
Actuarial Assumptions:	
Investment Rate of Return*	7.50% long-term rate of return; resulting single discount rate 6.90%
Projected Salary Increases*	4.0% - 14.0%
Cost of Living Adjustment (COLA)	0.00%
*Includes inflation at	2.50%

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 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.

3. Target Allocations

Asset Class	Target Allocation	Long Term Expected Rate of Return
Global Equity	37%	7.60%
Equity Long/Short	9%	6.10%
Private Markets	24%	9.00%
Fixed Income	15%	2.90%
Absolute Return	9%	5.40%
Managed Futures	4%	6.10%
Cash	2%	2.50%
Total	100%	

The long-term expected rate of return on OPEB plan investments was determined using a building-block method in which best-estimate ranges of expected future nominal 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 expected 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 Statewide Death & Disability Plan target asset allocation as of December 31, 2018, are summarized in the above table.

The single discount rate used to measure the total OPEB liability was 6.90 percent. The single discount rate was based on an expected rate of return on OPEB plan investments of 7.50 percent and a municipal bond rate of 3.71 percent. The

projection of cash flows used to determine the discount rate assumed that contributions from plan members will be made at the 2019 contribution rate of 2.8 percent of base salary. Based on those assumptions, the Plan fiduciary net position and future contributions were projected to be available to make all the projected future benefit payments of current plan members through they year 2057. Therefore to determine the total OPEB liability, the long-term expected rate of return on OPEB plan investments was applied to projected benefit payments through the year 2057, and the municipal bond rate was applied to all benefit payments after that date.

4. Changes in Discount Rates

1.00% Decrease *	Current Discount Rate *	1.00% Increase *
\$99,015,483	\$47,622,542	\$4,801,535

* The single discount rate used was 6.90 percent. The expected return on OPEB assets is 7.50 percent and the municipal bond rate is 3.71 percent.

In accordance with GASB Statement No. 74 regarding the disclosure of the sensitivity of the net OPEB asset to changes in the discount rate, the above table presents the net OPEB asset of the participating employers calculated using the discount rate of 6.90 percent, as well as what the net OPEB liability would be if it were calculated using a discount rate that is 1.00 percent lower (5.90 percent) or 1.00 percent higher (7.90 percent) than the current rate.

Regarding the sensitivity of the net OPEB asset to changes in healthcare cost trend rates, this plan does not provide healthcare benefits and is not subject to the healthcare trend.

B. FPPA Staff Healthcare Subsidy Plan

The FPPA Staff Healthcare Subsidy Plan is a single employer defined benefit healthcare plan. The net OPEB liability (i.e., the plan's liability determined in accordance with Governmental Accounting Standards Board (GASB) Statement No. 74, Financial Reporting for Postemployment Benefits Other Than Pension Plans, less the fiduciary net position) as of December 31, 2018, is \$31,924 using a discount rate of 7.5 percent. The Plan net OPEB liability would be \$72,879 if it were calculated using a discount rate 1.0 percent less (6.5 percent) or \$(2,709) if it were calculated using a discount rate 1.0 percent higher (8.5 percent).

The total OPEB liability is \$300,790 and the plan fiduciary net position is \$258,349 as of December 31, 2018. The total OPEB liability is based on the alternative measurement methods applied as of December 31, 2017 due to the small size of the plan. FPPA uses a level dollar amortization method over a 10 year amortization period. The discount rate used is 7.5 percent corresponding to the expected investment rate of return as described above for the Statewide Death & Disability Plan. Based on that assumption, the Plan fiduciary net position was projected to be available to make all projected future benefit payments. Regarding the sensitivity of the net OPEB liability to changes in healthcare cost trend rates, this plan does not provide healthcare benefits and is not subject to the healthcare trend.

NOTE 8 | PROPERTY AND EQUIPMENT

Property and equipment at December 31, 2018, is comprised of the following:

General Assets	Balance 12/31/2017	Additions	Deletions	Balance 12/31/2018
Nondepreciable Assets:				
Land	\$1,937,742			\$1,937,742
Depreciable Assets:				
Building & Improvements	2,698,684	\$29,500		2,728,184
Equipment	490,055	44,033	\$(6,928)	527,160
Intangible Assets (Internally generated computer software)	6,460,154	368,392		6,828,546
Totals at Historical Cost	\$11,586,635	\$441,925	\$(6,928)	\$12,021,632
Less Accumulated Depreciation/Amortization for:				
Building & Improvements	\$(1,920,332)	\$(71,803)		\$(1,992,135)
Equipment	(358,440)	(60,529)	\$6,928	(412,041)
Intangible Assets (Internally generated computer software)	(5,209,061)	(275,767)		(5,484,828)
Total Accumulated Depreciation/Amortization	\$(7,487,833)	\$(408,099)	\$6,928	\$(7,889,004)
Total Net Property & Equipment	\$4,098,802	\$33,826	\$0	\$4,132,628

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 2018 totaled \$408,099.

NOTE 9 | 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 employers are required to contribute at a rate set by statute. The contribution requirements of plan members and employers are established under CRS § 24-51-401. During 2018, members contributed 8.0 percent of covered salary and FPPA, as an employer, contributed 20.15 percent of covered salary. FPPA's employer contributions to the SDTF for the years ending December 31, 2018, 2017 and 2016 were \$1,121,645, \$1,038,636, and \$920,107, 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 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 State Division Trust Fund (SDTF)

FPPA accounts for the SDTF under Governmental Accounting Standards Board (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, 2018.

The total pension liability was determined from the December 31, 2016 actuarial valuation rolled forward to December 31, 2017. The proportionate share of the FPPA net pension liability calculated using the discount rate of 4.72 percent is \$37,041,432. The proportionate share of the net pension liability would be \$46,082,201 if it were calculated using a discount rate that is 1-percentage-point lower (3.72 percent) or \$29,619,514 if it were calculated using a discount rate that is 1-percentage-point higher (5.72 percent) than the current rate. The proportionate share of the FPPA deferred inflows is \$1,395,111, deferred outflows is \$9,051,236, and pension expense is \$9,660,816.

NOTE 10 | FPPA EMPLOYEE DEFINED CONTRIBUTION PENSION PLAN

A. Plan Description

The State Division Trust Fund (SDTF) members of FPPA may contribute to the Voluntary Investment Program (VIP), an Internal Revenue Code Section 401(k) defined contribution plan administered by the Public Employees' Retirement Association of Colorado (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 \$1,100 in 2018. 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, 2018 were \$207,852 and the matching employer contributions were \$11,859.

NOTE 11 | 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 the Public Employees' Retirement Association of Colorado (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, 2018, 2017 and 2016, FPPA's contributions to the HCTF were \$59,805, \$55,379, and \$51,766, respectively, equal to their required contributions for each year.

C. Benefits Provided

The HCTF provides a health care premium subsidy to eligible participating PERA benefit recipients and retirees who choose to enroll in one of the PERA medical health care plans. The health care premium subsidy is based upon the benefit structure under which the member retires and the member's years of service credit. The maximum service-based premium subsidy is \$230 per month for benefit recipients who are under 65 years of age and who are not entitled to Medicare; the maximum service-based subsidy is \$115 per month for benefit recipients who are 65 years of age or older or who are under 65 years of age and entitled to Medicare. The basis for the maximum service-based subsidy, in each case, is for benefit recipients with retirement benefits based on 20 or more years of service credit. There is a 5 percent reduction in the subsidy for each year less than 20. The benefit recipient pays the remaining portion of the premium to the extent the subsidy does not cover the entire amount.

D. FPPA Accounting for the HCTF

FPPA accounts for the HCTF under Governmental Accounting Standards Board (GASB) Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions. GASB Statement No. 75 requires FPPA to record a net other post-employment benefit liability based on its proportionate share of the HCTF's collective net other post-employment benefit liability. Likewise, FPPA's proportionate share of the HCTF'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, 2018.

The total other post-employment benefit liability was determined from the December 31, 2016 actuarial valuation rolled forward to December 31, 2017. The proportionate share of the FPPA net other post-employment benefit liability calculated using the discount rate of 7.25 percent is \$869,117. The proportionate share of the net other post-employment benefit liability would be \$977,161 if it were calculated using a discount rate that is 1-percentage-point lower (6.25 percent) or \$776,899 if it were calculated using a discount rate that is 1-percentage-point higher (8.25 percent) than the current rate. The proportionate share of the FPPA deferred inflows is \$14,540, deferred outflows is \$95,526, and other post-employment benefit expense is \$74,312.

NOTE 12 | 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 13 | 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, 2018, the total portfolio had 0.03 percent net exposure to forward foreign exchange contracts. The fair value of exposure was comprised of \$1,834,207,950 in payables and \$1,835,809,006 in receivables, for a net exposure of \$1,601,056.

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, 2018, the total portfolio had (0.03) percent net

exposure to equity index futures. The fair value of exposure was comprised of \$1,543,070 in payables and \$0 in receivables, for a net exposure of \$(1,543,070).

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, 2018, the total portfolio had 0.28 percent net exposure financial futures. The fair value of exposure was comprised of \$6,504,747 in payables and \$20,252,687 in receivables, for a net exposure of \$13,747,940.

NOTE 14 | 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, 2018, FPPA had committed approximately \$699.7 million in additional funds to these investments.

■ Schedule of Annual Money-Weighted Rate of Return on Pension and OPEB 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
2018	0.1%
2017	15.0%
2016	5.5%
2015	1.9%
2014	9.9%

Note - Information about the annual money-weighted return for the Fund for ten years is not available as Governmental Accounting Standards Board (GASB) Statement No. 67 was implemented in 2014. Additional years will be reported as they become available.

Cost-Sharing and Single Employer Plans

Schedule of Changes in the Employers' Net Pension Liability

Defined Benefit System | Statewide Defined Benefit Plan

	2018	2017	2016	2015	2014
Total Pension Liability					
Service Cost	\$87,172,434	\$78,479,646	\$72,572,756	\$66,774,163	\$61,258,996
Interest	170,447,796	151,994,779	138,918,731	124,407,008	115,461,452
Benefit Changes	2,691,408	1,548,628	3,080,926	2,819,803	(9,641,302)
Difference Between Actual and Expected Experience	64,698,059	108,970,799	8,604,791	18,544,608	9,903,233
Assumption Changes			32,998,660		
Benefit Payments	(77,194,066)	(65,965,013)	(59,989,380)	(53,076,425)	(47,700,529)
Refunds	(3,406,375)	(2,187,599)	(1,813,180)	(1,763,962)	(1,848,698)
Net Change in Total Pension Liability	\$244,409,256	\$272,841,240	\$194,373,304	\$90,931,032	\$127,433,152
Total Pension Liability - Beginning	2,285,984,033	2,013,142,793	1,818,769,489	1,661,064,294	1,533,631,141
Total Pension Liability - Ending	\$2,530,393,289	\$2,285,984,033	\$2,013,142,793	\$1,751,995,326	\$1,661,064,293
Plan Fiduciary Net Position					
Contributions - Employer	\$51,566,486	\$44,362,720	\$40,930,412	\$38,807,864	\$35,952,355
Contributions - Member	147,886,813	156,430,319	59,427,866	71,434,264	47,508,931
Net Investment Income	(2,247,353)	298,378,849	101,475,943	30,587,174	111,766,310
Benefit Payments	(77,194,066)	(65,965,013)	(59,989,380)	(53,076,425)	(47,700,529)
Refunds	(3,406,375)	(2,187,599)	(1,813,180)	(1,763,962)	(1,848,697)
Plan Direct Expense					
Administrative Expense	(3,227,251)	(3,135,872)	(3,383,884)	(3,022,691)	(2,980,364)
Contributions for Service Reinstatements	38,107		20,412		10,815
Other					
Net Change in Plan Fiduciary Net Position	\$113,416,361	\$427,883,404	\$136,668,189	\$82,966,224	\$142,708,821
Plan Fiduciary Net Position - Beginning *	2,413,276,447	1,985,393,043	1,848,724,854	1,765,758,630	1,623,049,809
Plan Fiduciary Net Position - Ending *	\$2,526,692,808	\$2,413,276,447	\$1,985,393,043	\$1,848,724,854	\$1,765,758,630
Net Pension Liability - Ending	\$3,700,481	\$(127,292,414)	\$27,749,750	\$(96,729,528)	\$(104,694,336)
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	99.9%	105.6%	98.6%	105.5%	106.3%
Covered Payroll	\$660,820,056	\$577,697,658	\$535,968,391	\$495,534,535	\$449,010,427
Net Pension Liability as a Percentage of Covered Payroll	0.6%	(22.0%)	5.2%	(19.5%)	(23.3%)

Note - Information for changes in the net pension liability 10 years is not available as Governmental Accounting Standards Board (GASB) Statement No. 67 was implemented in 2014. Additional years will be reported as they become available.

*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 2018 and the net pension and other post-employment benefits liabilities associated with the FPPA Staff participation in the Public Employees' Retirement Association of Colorado pension and other post-employment benefits plans.

Cost-Sharing and Single Employer Plans

Schedule of Changes in the Employers' Net Pension Liability

Defined Benefit System | Statewide Hybrid Plan - Defined Benefit Component

	2018	2017	2016	2015	2014
Total Pension Liability					
Service Cost	\$1,505,914	\$1,247,137	\$1,296,839	\$1,231,110	\$1,312,804
Interest	3,752,149	3,155,031	2,686,507	2,197,875	1,978,643
Benefit Changes	514,935	418,041	360,485	279,549	195,705
Difference Between Actual and Expected Experience	(615,605)	7,887,981	2,908,771	2,908,248	1,409,819
Assumption Changes			676,345		
Benefit Payments	(1,771,264)	(1,493,664)	(1,191,766)	(953,099)	(752,330)
Refunds	(326,973)	(27,870)	(17,151)	(18,365)	(43,962)
Net Change in Total Pension Liability	\$3,059,156	\$11,186,656	\$6,720,030	\$5,645,318	\$4,100,679
Total Pension Liability - Beginning	53,776,339	42,589,683	35,869,653	30,224,335	26,123,656
Total Pension Liability - Ending	\$56,835,495	\$53,776,339	\$42,589,683	\$35,869,653	\$30,224,335
Plan Fiduciary Net Position					
Contributions - Employer	\$1,494,055	\$1,304,938	\$1,298,684	\$1,302,433	\$1,237,843
Contributions - Member	3,536,361	8,956,842	4,118,336	4,341,844	1,765,286
Net Investment Income	(69,943)	8,122,829	2,656,991	673,519	2,565,885
Benefit Payments	(1,771,264)	(1,493,664)	(1,191,766)	(953,099)	(752,330)
Refunds	(326,973)	(27,870)	(17,151)	(18,365)	(43,962)
Plan Direct Expense					8,589
Administrative Expense	(88,989)	(77,914)	(87,869)	(73,679)	(67,974)
Contributions for Service Reinstatements					
Other					
Net Change in Plan Fiduciary Net Position	\$2,773,247	\$16,785,161	\$6,777,225	\$5,272,653	\$4,713,337
Plan Fiduciary Net Position - Beginning *	69,872,191	53,087,030	46,309,805	41,037,152	36,323,815
Plan Fiduciary Net Position - Ending *	\$72,645,438	\$69,872,191	\$53,087,030	\$46,309,805	\$41,037,152
Net Pension Liability - Ending	\$(15,809,943)	\$(16,095,852)	\$(10,497,347)	\$(10,440,152)	\$(10,812,817)
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	127.8%	129.9%	124.6%	129.1%	135.8%
Covered Payroll	\$15,952,700	\$14,260,540	\$13,829,122	\$13,295,699	\$12,937,791
Net Pension Liability as a Percentage of Covered Payroll	(99.1%)	(112.9%)	(75.9%)	(78.5%)	(83.6%)

Note - Information for changes in the net pension liability 10 years is not available as Governmental Accounting Standards Board (GASB) Statement No. 67 was implemented in 2014. Additional years will be reported as they become available.

*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 2018 and the net pension and other post-employment benefits liabilities associated with the FPPA Staff participation in the Public Employees' Retirement Association of Colorado pension and other post-employment benefits plans.

Cost-Sharing and Single Employer Plans

Schedule of Changes in the Employers' Net Pension Liability

Defined Benefit System | Colorado Springs New Hire Plan - Fire Component

	2018	2017	2016	2015	2014
Total Pension Liability					
Service Cost	\$1,794,929	\$1,872,966	\$2,129,584	\$2,368,863	\$2,394,998
Interest	12,396,012	12,035,124	11,647,997	10,798,529	10,259,613
Benefit Changes					
Difference Between Actual and Expected Experience	(610,081)	(287,257)	(535,223)	1,091,231	(989,275)
Assumption Changes			5,122,523		
Benefit Payments	(8,338,312)	(7,983,856)	(7,389,735)	(6,228,574)	(5,317,236)
Refunds		(150,551)	(167,056)		
Net Change in Total Pension Liability	\$5,242,548	\$5,486,426	\$10,808,090	\$8,030,049	\$6,348,100
Total Pension Liability - Beginning	168,928,617	163,442,191	152,634,101	144,604,052	138,255,953
Total Pension Liability - Ending	\$174,171,165	\$168,928,617	\$163,442,191	\$152,634,101	\$144,604,053
Plan Fiduciary Net Position					
Contributions - Employer	\$4,058,332	\$4,181,089	\$3,485,586	\$3,437,596	\$3,341,129
Contributions - Member	923,455	1,083,453	1,045,342	1,202,513	1,278,915
Net Investment Income	33,950	18,445,141	6,569,905	2,206,765	7,924,723
Benefit Payments	(8,338,312)	(7,983,856)	(7,389,735)	(6,228,574)	(5,317,237)
Refunds		(150,551)	(167,056)		
Plan Direct Expense		(9,300)			
Administrative Expense	(74,266)	(58,095)	(209,340)	(194,093)	(195,428)
Contributions for Service Reinstatements			38,760		7,001
Other					
Net Change in Plan Fiduciary Net Position	\$(3,396,841)	\$15,507,881	\$3,373,462	\$424,207	\$7,039,103
Plan Fiduciary Net Position - Beginning *	142,035,779	126,527,898	123,154,436	122,730,229	115,691,126
Plan Fiduciary Net Position - Ending *	\$138,638,938	\$142,035,779	\$126,527,898	\$123,154,436	\$122,730,229
Net Pension Liability - Ending	\$35,532,227	\$26,892,838	\$36,914,293	\$29,479,665	\$21,873,823
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	79.6%	84.1%	77.4%	80.7%	84.9%
Covered Payroll	\$12,504,612	\$13,115,596	\$14,134,843	\$13,991,673	\$12,468,196
Net Pension Liability as a Percentage of Covered Payroll	284.2%	205.0%	261.2%	210.7%	175.4%

Note - Information for changes in the net pension liability 10 years is not available as GASB Statement No. 67 was implemented in 2014. Additional years will be reported as they become available.

*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 2018 and the net pension and other post-employment benefits liabilities associated with the FPPA Staff participation in the Public Employees' Retirement Association of Colorado pension and other post-employment benefits plans.

Cost-Sharing and Single Employer Plans

Schedule of Changes in the Employers' Net Pension Liability

Defined Benefit System | Colorado Springs New Hire Plan - Police Component

	2018	2017	2016	2015	2014
Total Pension Liability					
Service Cost	\$4,903,284	\$5,320,575	\$5,823,050	\$6,027,255	\$6,209,684
Interest	25,380,057	24,547,646	23,783,282	22,182,597	20,973,093
Benefit Changes					
Difference Between Actual and Expected Experience	(3,730,126)	(6,295,849)	(5,402,817)	(839,906)	(1,283,125)
Assumption Changes			8,534,936		
Benefit Payments	(13,899,402)	(12,859,508)	(11,574,477)	(10,088,223)	(8,817,186)
Refunds		(8,707)	(83,530)	(99,734)	(443,708)
Net Change in Total Pension Liability	\$12,653,813	\$10,704,157	\$21,080,444	\$17,181,989	\$16,638,758
Total Pension Liability - Beginning	346,772,188	336,068,031	314,987,587	297,805,598	281,166,840
Total Pension Liability - Ending	\$359,426,001	\$346,772,188	\$336,068,031	\$314,987,587	\$297,805,598
Plan Fiduciary Net Position					
Contributions - Employer	\$7,590,899	\$8,433,311	\$7,512,099	\$7,916,242	\$7,728,841
Contributions - Member	2,222,616	2,319,332	2,628,533	2,493,427	2,830,620
Net Investment Income	(4,868)	40,741,455	14,354,619	4,665,141	16,694,742
Benefit Payments	(13,899,402)	(12,859,508)	(11,574,477)	(10,088,223)	(8,817,186)
Refunds		(8,707)	(83,530)	(99,734)	(443,708)
Plan Direct Expense		(9,300)			
Administrative Expense	(145,894)	(122,454)	(451,871)	(412,381)	(408,342)
Contributions for Service Reinstatements					
Other					
Net Change in Plan Fiduciary Net Position	\$(4,236,649)	\$38,494,129	\$12,385,373	\$4,474,472	\$17,584,967
Plan Fiduciary Net Position - Beginning *	315,606,098	277,111,969	264,726,596	260,252,124	242,667,157
Plan Fiduciary Net Position - Ending *	\$311,369,449	\$315,606,098	\$277,111,969	\$264,726,596	\$260,252,124
Net Pension Liability - Ending	\$48,056,552	\$31,166,090	\$58,956,062	\$50,260,991	\$37,553,474
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	86.6%	91.0%	82.5%	84.0%	87.4%
Covered Payroll	\$29,126,009	\$29,280,692	\$31,180,071	\$32,359,637	\$30,441,800
Net Pension Liability as a Percentage of Covered Payroll	165.0%	106.4%	189.1%	155.3%	123.4%

Note - Information for changes in the net pension liability 10 years is not available as GASB Statement No. 67 was implemented in 2014. Additional years will be reported as they become available.

*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 2018 and the net pension and other post-employment benefits liabilities associated with the FPPA Staff participation in the Public Employees' Retirement Association of Colorado pension and other post-employment benefits plans.

Cost-Sharing and Single Employer Plans

Schedule of Employers' Contributions

Defined Benefit System | Statewide Defined Benefit Plan

Year ended	Actuarially Determined Contribution	Contributions in Relation to the Actuarially Determined Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a % of Covered Payroll
12/31/2018	\$26,181,482	\$51,566,486	\$(25,385,004)	\$660,820,056	7.8%
12/31/2017	29,396,340	44,362,720	(14,966,380)	577,697,658	7.7%
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	35,952,356	(9,819,949)	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%

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. Excess contributions represent the employer contributions in excess of the actuarial determined amount.

Defined Benefit System | Statewide Hybrid Plan - Defined Benefit Component

Year ended	Actuarially Determined Contribution	Contributions in Relation to the Actuarially Determined Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a % of Covered Payroll
12/31/2018	\$1,494,055	\$1,494,055	\$0	\$15,952,700	9.4%
12/31/2017	1,304,938	1,304,938	0	14,260,540	9.2%
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	13,246,537	9.3%
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%

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

Schedule of Employers' Contributions

Defined Benefit System | Colorado Springs New Hire Plan - Fire Component

Year ended	Actuarially Determined Contribution	Contributions in Relation to the Actuarially Determined Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a % of Covered Payroll
12/31/2018	\$4,058,332	\$4,058,332	\$0	\$12,504,612	32.5%
12/31/2017	4,181,089	4,181,089	0	13,115,596	31.9%
12/31/2016	3,485,586	3,485,586	0	14,134,843	24.7%
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	12,417,745	26.9%
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%

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 Benefit System | Colorado Springs New Hire Plan - Police Component

Year ended	Actuarially Determined Contribution	Contributions in Relation to the Actuarially Determined Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a % of Covered Payroll
12/31/2018	\$7,590,899	\$7,590,899	\$0	\$29,126,009	26.1%
12/31/2017	8,433,311	8,433,311	0	29,280,692	28.8%
12/31/2016	7,512,099	7,512,099	0	31,180,071	24.1%
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	29,508,880	26.2%
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%

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

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 FPPA Board. Additional information as of the latest actuarial valuation follows.

	Defined Benefit System		
	Statewide Defined Benefit Plan	Statewide Hybrid Plan – Defined Benefit Component	Colorado Springs New Hire Pension Plan
Valuation Date	January 1, 2018	January 1, 2018	January 1, 2018
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	20 Years, Beginning January 1, 2018
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%

A. Schedule of Changes in Employers' Net Other Postemployment Benefits Liability

Statewide Death & Disability Plan

	2018	2017
Total OPEB Liability		
Service Cost	\$23,972,267	\$23,202,629
Interest	28,703,998	27,094,033
Benefit Changes		
Difference Between Actual and Expected Experience	6,997,045	
Assumption Changes	26,598,643	
Benefit Payments	(30,273,489)	(28,157,074)
Net Change in Total OPEB Liability	\$55,998,464	\$22,139,588
Total OPEB Liability - Beginning	385,870,588	363,731,000
Total OPEB Liability - Ending	\$441,869,052	\$385,870,588
Plan Fiduciary Net Position		
Contributions - Member	\$22,684,513	\$20,535,422
Net Investment Income	96,106	52,449,216
Benefit Payments	(30,273,489)	(28,157,074)
Plan Direct Expense	(1,953,652)	
Administrative Expense		(1,881,828)
Other		
Net Change in Plan Fiduciary Net Position	\$(9,446,522)	\$42,945,736
Plan Fiduciary Net Position - Beginning *	403,693,032	360,747,296
Plan Fiduciary Net Position - Ending *	\$394,246,510	\$403,693,032
Net OPEB Liability - Ending	\$47,622,542	\$(17,822,444)
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	89.2%	104.6%
Covered Payroll	\$947,520,430	\$917,099,955
Net OPEB Liability as a Percentage of Covered Payroll	5.0%	(1.9%)

Note - Information on the change in net OPEB liability for 10 years is not available as GASB Statement No. 74 was implemented in 2017. Additional years will be reported as they become available.

*The Plan Fiduciary Net Position used to calculate the Net OPEB Liability in the above Schedules of Changes in the Employers' Net OPEB 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 2018 and the net pension and other post-employment benefits liabilities associated with the FPPA Staff participation in the Public Employees' Retirement Association of Colorado pension and other post-employment benefits plans.

Regarding the sensitivity of the net OPEB liability to changes in healthcare cost trend rates, this plan does not provide healthcare benefits and is not subject to the healthcare trend.

B. Schedule of Employers' Contributions

All contributions are made by members or on behalf of members to the Statewide Death & Disability Plan and are reflected in the financial statements as Member Contributions. As such, the employers' actuarial determined contribution is zero. Additionally, as the participating employers are not mandated to fund the Statewide Death & Disability Plan, FPPA will not provide additional schedules to employers for reporting under GASB Statement No. 75.

Other Post-Employment Benefits Plan

NOTE 3 | ACTUARIAL ASSUMPTIONS FOR THE OTHER POST-EMPLOYMENT BENEFITS (OPEB) PLAN

The information presented in the required supplementary schedules for the Statewide Death & Disability Plan 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 FPPA Board. Additional information as of the latest actuarial valuation used to calculate the actuarial determined contributions follows.

Valuation Date	January 1, 2018
Actuarial Method	Aggregate Method
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%
Cost of Living Adjustment (COLA)	0%
*Includes inflation at	2.5%

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 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.

NOTE 4 | SCHEDULE OF CHANGES IN NET OPEB LIABILITY

The total OPEB liability contained in this schedule was provided by the plans' actuary, Gabriel, Roeder, Smith & Company. The net OPEB liability is measured as the total OPEB liability less the amount of the fiduciary net position of the plan.

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Fiduciary Net Position by Participating Employer

Employer Plan	Fiduciary Net Position Dec 31, 2017	Employer Contributions	Member Contributions	Contributions for Service Reinstatement	Affiliations/ (Withdrawals)
Adams County (North Washington) FPD (Old Hire)	\$2,248,079	\$180,163			
Adams County (North Washington) FPD (Volunteer)	158,890				
Alamosa County FPD (Volunteer)	671,136	15,258			
Alamosa Fire (Volunteer)	1,778,928	39,302			
Allenspark FPD (Volunteer)	555,524	13,500			
Aspen FPD (Volunteer)	2,293,229	399,494			
Ault FPD (Volunteer)	721,888	98,665			
Aurora Fire (Old Hire)	76,561,985	3,184,594			
Aurora Police (Old Hire)	93,646,156	3,906,280			
Bancroft FPD (Old Hire)	1,558,524	706,794			
Basalt & Rural FPD (Volunteer)	1,882,303	58,075			
Bennett FPD #7 (Volunteer)	1,001,840	10,000			
Berthoud FPD (Volunteer)	547,188	11,746			
Big Sandy FPD (Volunteer)	159,702	4,000			
Big Thompson Canyon Fire (Volunteer)	417,468	30,000			
Black Forest Fire Rescue (Volunteer)	1,276,471	10,000			
Blanca Fire (Volunteer)	152,973				
Boone Fire (Volunteer)	35,115				
Boulder Mountain FPD (Volunteer)	1,008,455	38,500			
Boulder Rural FPD (Volunteer)	660,840	79,500			
Brighton VFD (Volunteer)	3,810,686				
Brush Combined Fire (Volunteer)	860,054	40,144			
Buena Vista Fire (Volunteer)	485,855	12,000			
Calhan FPD (Volunteer)	176,585	3,000			
Cañon City Area FPD (Old Hire)	2,975,930	226,589			
Cañon City Area FPD (Volunteer)	262,854	12,079			
Carbondale & Rural FPD (Volunteer)	2,374,761	33,780			
Cascade FPD (Volunteer)	328,173	16,147			
Castle Rock Fire (Volunteer)	991,928	20,440			
Cedaredge Police (Old Hire)	75,936				
Central City VFD (Volunteer)	563,952	22,044			
Central Orchard Mesa FPD (Volunteer)	90,767	15,556			
Cherry Hills FPD (Old Hire)	2,334,621	0			
Cheyenne County FPD #1 (Volunteer)	496,753	20,000			
Clear Creek Fire Authority (Volunteer)	2,251,448	80,000			
Clifton FPD (Volunteer)	1,806,775	32,000			
Coal Creek Canyon FPD (Volunteer)	1,104,818	53,000			
Colorado River (Burning Mountains) FPD (Volunteer)	2,606,047	50,000			
Colorado River (Rifle) FPD (Volunteer)	5,198,682				
Colorado Springs Fire (Old Hire)	74,667,694	2,286,697			
Colorado Springs Police (Old Hire)	63,196,268	1,833,691			
Cortez Police (Old Hire)	288,958				
Crested Butte FPD (Volunteer)	3,483,085	193,563			

State Contributions	Net Investment Income	Benefit Payments	Refunds	Administrative and Pension Expenses	Change in Fiduciary Net Position	Fiduciary Net Position Dec 31,2018
	\$4,227	\$(447,294)		\$(5,157)	\$(268,061)	\$1,980,018
	358	(22,680)		(2,582)	(24,904)	133,986
\$12,504	273	(33,580)		(9,465)	(15,010)	656,126
18,549	1,060	(112,477)		(13,982)	(67,548)	1,711,380
12,150	188	(39,900)		(9,249)	(23,311)	532,213
40,000	(3,674)	(292,288)		(16,132)	127,400	2,420,629
11,095	(97)	(95,250)		(6,023)	8,390	730,278
	71,303	(8,596,949)	\$(9,490)	(32,730)	(5,383,272)	71,178,713
	76,779	(9,842,538)	(12,891)	(36,178)	(5,908,548)	87,737,608
	4,787	(830,959)		(6,017)	(125,395)	1,433,129
10,222	1,916	(177,409)		(10,325)	(117,521)	1,764,782
9,000	584	(62,203)		(10,970)	(53,589)	948,251
11,803	661	(62,760)		(5,162)	(43,712)	503,476
3,600	(82)	(4,850)		(4,302)	(1,634)	158,068
9,942	187	(44,400)		(5,808)	(10,079)	407,389
18,000	549	(82,653)		(5,808)	(59,912)	1,216,559
2,000	217	(14,910)		(1,506)	(14,199)	138,774
	96	(2,900)		(3,872)	(6,676)	28,439
31,531	354	(65,925)		(16,777)	(12,317)	996,138
29,700	782	(131,175)		(9,034)	(30,227)	630,613
56,649	4,658	(360,773)	(5,924)	(9,680)	(315,070)	3,495,616
	1,057	(106,236)		(14,311)	(79,346)	780,708
10,800	300	(32,488)		(6,883)	(16,271)	469,584
2,700	(47)	(2,340)		(4,518)	(1,205)	175,380
	3,608	(419,271)		(4,907)	(193,981)	2,781,949
6,211	315	(29,620)		(6,883)	(17,898)	244,956
	3,459	(225,551)	(23,012)	(21,940)	(233,264)	2,141,497
	476	(38,460)		(6,238)	(28,075)	300,098
17,635	688	(111,577)		(5,163)	(77,977)	913,951
	174	(8,597)		(2,971)	(11,394)	64,542
	163	(38,700)		(4,947)	(21,440)	542,512
15,610	74	(24,165)		(5,808)	1,267	92,034
	5,886	(391,541)		(5,157)	(390,812)	1,943,809
	475	(40,200)		(9,895)	(29,620)	467,133
432	1,380	(160,482)		(10,970)	(89,640)	2,161,808
14,400	1,735	(141,420)		(7,959)	(101,244)	1,705,531
28,152	(91)	(101,096)		(16,347)	(36,382)	1,068,436
	2,450	(273,399)		(9,249)	(230,198)	2,375,849
	3,655	(271,068)		(9,681)	(277,094)	4,921,588
	117,863	(8,186,165)		(43,290)	(5,824,895)	68,842,799
	98,302	(6,844,786)		(36,393)	(4,949,186)	58,247,082
	177	(10,703)		(2,971)	(13,497)	275,461
40,500	1,588	(184,265)		(13,551)	37,835	3,520,920

Fiduciary Net Position by Participating Employer

Employer Plan	Fiduciary Net Position Dec 31, 2017	Employer Contributions	Member Contributions	Contributions for Service Reinstatement	Affiliations/ (Withdrawals)
Cripple Creek Fire (Volunteer)	\$597,798				
Crowley VFD (Volunteer)	43,910	\$211			
Crystal Lakes FPD (Volunteer)	327,197	10,000			
Del Norte Police (Old Hire)	5,083	6,472			
Denver Fire (Old Hire)	334,241,535	16,355,396	\$3,078		
Denver Police (Old Hire)	618,125,199	7,987,837			
Divide VFD (Volunteer)	544,566	12,000			
Donald Wescott FPD (Volunteer)	964,631				
Dove Creek FPD (Volunteer)	478,077	68,000			
Durango Fire (Old Hire)	992,332	258,101			
Durango Police (Old Hire)	1,539,507	260,476			
Durango FPD (Volunteer)	5,679,598	162,215			
Eads Fire (Volunteer)	157,822				
East Grand FPD #4 (Volunteer)	2,195,488	60,000			
Eaton FPD (Volunteer)	1,452,126	163,312			
Eckley Fire (Volunteer)	18,410	3,800			
Elbert FPD & Rescue (Volunteer)	218,220				
Elizabeth FPD (Volunteer)	1,065,572	55,086			
Elk Creek FPD (Volunteer)	2,828,690	26,670			
Englewood Fire (Old Hire)	5,870,916	283,390			
Englewood Police (Old Hire)	4,256,529	445,045			
Englewood Fire (Volunteer)	30,160	13,796			
Evans FPD (Volunteer)	734,020	88,000			
Evergreen FPD (Volunteer)	4,978,441	225,000			
Falcon FPD (Volunteer)	566,779	30,000			
Federal Heights Fire (Volunteer)	3,298,665				
Fisher's Peak FPD (Volunteer)	214,281	3,100			
Florence FPD (Volunteer)	2,062,970	134,778			
Foothills Fire & Rescue (Volunteer)	1,753,734	120,000			
Fort Lewis Mesa FPD (Volunteer)	391,714	4,760			
Fort Morgan Police (Old Hire)	409,911	102,792			
Fort Morgan Fire (Volunteer)	1,256,787	88,404			
Fort Morgan Rural FPD (Volunteer)	846,283	85,558			
Franktown FPD (Volunteer)	3,509,496	72,000			
Frederick Firestone FPD (Volunteer)	126,025	10,003			
Galeton FPD (Volunteer)	1,621,902	34,849			
Genesee FPD (Volunteer)	1,605,275	90,000			
Glacier View FPD (Volunteer)	315,738	5,900			
Glendale Fire (Volunteer)	229,996				
Glenwood Springs Fire (Volunteer)	658,833	30,000			
Golden Fire (Volunteer)	2,952,334	155,000			
Golden Gate FPD (Volunteer)	337,060				
Grand FPD #1 (Volunteer)	1,389,637	90,000			

State Contributions	Net Investment Income	Benefit Payments	Refunds	Administrative and Pension Expenses	Change in Fiduciary Net Position	Fiduciary Net Position Dec 31,2018
	\$160	\$(13,680)		\$(1,937)	\$(15,457)	\$582,341
\$1,000	17	(180)		(3,227)	(2,179)	41,731
	(150)	(10,710)		(3,872)	(4,732)	322,465
	(77)	(3,000)		(3,163)	232	5,315
	530,852	(43,528,533)	\$(678)	(175,127)	(26,815,012)	307,426,523
	753,618	(57,457,515)	(1,300)	(231,478)	(48,948,838)	569,176,361
10,800	(189)	(23,262)		(8,389)	(9,040)	535,526
	991	(64,876)		(6,453)	(70,338)	894,293
61,153	207	(101,321)		(11,830)	16,209	494,286
	(1,245)	(239,393)	(1,300)	(4,477)	11,686	1,004,018
	(775)	(275,496)	(1,300)	(4,477)	(21,572)	1,517,935
38,552	6,492	(518,514)		(35,490)	(346,745)	5,332,853
1,000	154	(6,187)		(5,808)	(10,841)	146,981
36,000	1,365	(169,259)	(1,883)	(16,777)	(90,554)	2,104,934
	1,733	(226,560)		(9,249)	(70,764)	1,381,362
	52	(3,406)		(8,159)	(7,713)	10,697
	106	(5,400)		(3,442)	(8,736)	209,484
18,220	888	(169,425)		(6,239)	(101,470)	964,102
24,000	1,482	(182,100)	(6,000)	(19,574)	(155,522)	2,673,168
	9,605	(931,563)	(200)	(11,151)	(649,919)	5,220,997
	5,974	(844,059)	(200)	(10,291)	(403,531)	3,852,998
	203	(19,350)	(100)	(1,722)	(7,173)	22,987
22,123	1,103	(121,463)		(7,099)	(17,336)	716,684
	3,039	(423,741)	(750)	(37,425)	(233,877)	4,744,564
11,340	1,072	(99,436)		(6,238)	(63,262)	503,517
	(64)	(19,305)	(586)	(4,517)	(24,472)	3,274,193
2,790	(44)			(3,657)	2,189	216,470
66,336	170	(152,017)		(18,498)	30,769	2,093,739
33,120	277	(148,680)		(20,864)	(16,147)	1,737,587
11,951	342	(37,110)		(9,249)	(29,306)	362,408
	791	(159,315)	(1,300)	(3,401)	(60,433)	349,478
61,863	1,530	(205,650)		(15,272)	(69,125)	1,187,662
	1,176	(101,125)		(15,917)	(30,308)	815,975
32,400	(255)	(58,800)		(7,528)	37,817	3,547,313
9,003	287	(30,400)		(3,442)	(14,549)	111,476
6,741	1,161	(120,375)		(5,163)	(82,787)	1,539,115
14,400	1,205	(138,007)	(5,941)	(16,562)	(54,905)	1,550,370
5,310	59	(13,200)		(4,468)	(6,399)	309,339
	237	(13,080)		(3,227)	(16,070)	213,926
18,900	1,183	(111,870)		(6,023)	(67,810)	591,023
77,940	2,673	(380,909)		(21,079)	(166,375)	2,785,959
7,550	307	(22,320)		(2,582)	(17,045)	320,015
31,557	849	(194,894)		(9,464)	(81,952)	1,307,685

Fiduciary Net Position by Participating Employer

Employer Plan	Fiduciary Net Position Dec 31, 2017	Employer Contributions	Member Contributions	Contributions for Service Reinstatement	Affiliations/ (Withdrawals)
Grand Junction Fire (Old Hire)	\$8,472,274	\$424,262			
Grand Junction Police (Old Hire)	3,820,273				
Grand Lake FPD (Volunteer)	1,720,945				
Grand Valley FPD (Volunteer)	3,946,783				
Greeley Police (Old Hire)	743,331	40,683			
Greeley (Union Colony) Fire (Old Hire)	8,377,125	234,631			
Green Mountain Falls-Chipita Park FPD (Volunteer)	283,265	20,558			
Gypsum FPD (Volunteer)	668,782	22,704			
Hartsel FPD (Volunteer)	725,745	58,320			
Haxtun Fire (Volunteer)	185,981	4,714			
Haxtun Police (Old Hire)	140,365	13,404			
Hillrose Rural FPD (Volunteer)	336,976	26,000			
Holyoke Fire (Volunteer)	242,900	9,668			
Holyoke FPD (Volunteer)	189,002	16,000			
Hot Sulphur Springs/Parshall FPD (Volunteer)	267,717	4,500			
Hygiene FPD (Volunteer)	1,391,358	36,734			
Indian Hills FPD (Volunteer)	322,913	15,000			
Inter-Canyon FPD (Volunteer)	1,659,439	105,679			
Jackson 105 FPD (Volunteer)	301,929	14,584			
Jefferson-Como FPD (Volunteer)	1,275,837				
Kiowa FPD (Volunteer)	875,325				
Kremmling FPD (Volunteer)	529,042	41,945			
La Junta Fire (Old Hire)	809,166	60,388			
La Junta Police (Old Hire)	675,908	55,128			
La Junta Fire (Volunteer)	629,227				
La Salle Police (Old Hire)	1,417,785	6,909	\$6,909		
La Salle FPD (Volunteer)	3,023,176	162,000			
Lafayette Fire (Volunteer)	1,432,512	119,164			
Lake City Area FPD (Volunteer)	113,847	2,700			
Lake Dillon FPD (Volunteer)	4,069,943	91,082			
Lake George FPD (Volunteer)	350,881	12,000			
Lakewood FPD (Old Hire)	12,544,850	142,931			
Lamar Fire (Old Hire)	993,207				
Lamar Fire (Volunteer)	998,296	14,200			
Larkspur FPD (Volunteer)	1,531,576	62,000			
Las Animas Police (Old Hire)	228,181	67,924			
Leadville Fire (Old Hire)	133,165	15,624			
Lefthand FPD (Volunteer)	1,370,510	3,000			
Lewis-Arriola FPD (Volunteer)	1,488,406	95,000			
Limon Area FPD (Volunteer)	704,208				
Livermore FPD (Volunteer)	207,968	5,000			
Log Hill Mesa FPD (Volunteer)	418,579	19,350			
Loveland & Rural Consolidated VFD (Volunteer)	2,692,817				

State Contributions	Net Investment Income	Benefit Payments	Refunds	Administrative and Pension Expenses	Change in Fiduciary Net Position	Fiduciary Net Position Dec 31,2018
	\$9,209	\$(1,128,556)		\$(10,541)	\$(705,626)	\$7,766,648
	5,177	(360,688)		(5,802)	(361,313)	3,458,960
	1,419	(102,060)		(4,087)	(104,728)	1,616,217
	2,074	(167,987)	\$(291)	(7,314)	(173,518)	3,773,265
	1,539	(131,330)		(4,262)	(93,370)	649,961
	14,272	(1,150,696)		(9,466)	(911,259)	7,465,866
	464	(35,655)		(4,948)	(19,581)	263,684
\$14,400	35	(70,200)		(6,023)	(39,084)	629,698
	(860)	(91,260)		(7,744)	(41,544)	684,201
4,243	211	(11,500)		(10,540)	(12,872)	173,109
	(38)	(23,119)		(2,971)	(12,724)	127,641
18,243	(116)	(30,629)		(6,238)	7,260	344,236
	257	(16,039)		(10,110)	(16,224)	226,676
8,640	651	(33,460)		(17,853)	(26,022)	162,980
4,050	10	(15,000)		(2,582)	(9,022)	258,695
31,917	329	(59,441)		(13,336)	(3,797)	1,387,561
11,643	465	(45,000)		(7,314)	(25,206)	297,707
18,500	942	(153,912)		(13,551)	(42,342)	1,617,097
13,126	(82)	(37,680)		(6,668)	(16,720)	285,209
	503	(37,680)	(1,538)	(4,518)	(43,233)	1,232,604
	664	(43,440)		(7,099)	(49,875)	825,450
11,250	(942)	(53,245)		(5,592)	(6,584)	522,458
	1,286	(118,843)		(3,617)	(60,786)	748,380
	1,335	(118,106)		(3,402)	(65,045)	610,863
	304	(21,780)		(4,087)	(25,563)	603,664
	(375)			(2,469)	10,974	1,428,759
45,770	2,074	(347,113)		(11,615)	(148,884)	2,874,292
42,222	1,564	(222,840)		(9,680)	(69,570)	1,362,942
2,430	(18)	(1,200)		(3,442)	470	114,317
81,974	3,245	(442,200)		(11,615)	(277,514)	3,792,429
6,377	72	(22,680)		(4,932)	(9,163)	341,718
	21,293	(1,568,805)		(10,971)	(1,415,552)	11,129,298
	314	(25,481)		(3,221)	(28,388)	964,819
	(22)	(12,000)		(10,110)	(7,932)	990,364
28,338	(116)	(175,557)		(8,389)	(93,724)	1,437,852
	341	(46,247)	(1,300)	(3,402)	17,316	245,497
	119	(19,631)		(3,401)	(7,289)	125,876
2,700	1,069	(72,404)		(9,895)	(75,530)	1,294,980
	(1,025)	(129,795)		(13,336)	(49,156)	1,439,250
	427	(26,250)		(7,098)	(32,921)	671,287
4,500	100	(9,240)		(6,238)	(5,878)	202,090
18,540	129	(23,708)		(9,679)	4,632	423,211
173,178	2,940	(409,231)		(14,627)	(247,740)	2,445,077

Fiduciary Net Position by Participating Employer

Employer Plan	Fiduciary Net Position Dec 31, 2017	Employer Contributions	Member Contributions	Contributions for Service Reinstatement	Affiliations/ (Withdrawals)
Loveland Fire (Old Hire)	\$100,923				
Lower Valley FPD (Volunteer)	1,956,187				
Lyons FPD (Volunteer)	1,280,126	\$33,010			
Mancos FPD (Volunteer)	1,143,560	13,790			
Manitou Springs Fire (Old Hire)	344,596	16,956			
Manitou Springs VFD (Volunteer)	335,185	16,000			
Manzanola Rural FPD (Volunteer)	210,881	3,601			
Montrose FPD (Old Hire)	97,335	24,319			
Montrose FPD (Volunteer)	645,490	35,912			
Mountain View FPD (Old Hire)	276,457	3,295			
Mountain View FPD (Volunteer)	2,359,622	28,076			
Nederland FPD (Volunteer)	776,198	28,121			
New Raymer/Stoneham FPD (Volunteer)	1,419,327	127,303			
North Fork FPD (Volunteer)	338,500	35,000			
North Routt County Fire (Volunteer)	290,741	33,460			
Northeast Teller County FPD (Volunteer)	625,639	35,962			
North-West FPD (Volunteer)	296,079	20,000			
Northwest Conejos FPD (Volunteer)	523,474	14,517			
Norwood FPD (Volunteer)	551,731	26,320			
Nucla-Naturita FPD (Volunteer)	728,535	34,000			
Nunn FPD (Volunteer)	1,119,640	24,022			
Oak Creek FPD (Volunteer)	413,780	31,500			
Olathe FPD (Volunteer)	684,009	50,000			
Olney Springs Fire (Volunteer)	182,290				
Ordway Fire (Volunteer)	230,350	500			
Ouray VFD (Volunteer)	600,693	18,000			
Palisade VFD (Volunteer)	1,074,117	19,775			
Palmer Lake Fire (Volunteer)	24,492	16,616			
Parker FPD (Volunteer)	309,860				
Pawnee FPD (Volunteer)	214,018	3,500			
Peetz FPD (Volunteer)	355,867	20,000			
Peyton FPD (Volunteer)	68,647				
Pinewood Springs VFD (Volunteer)	214,379	7,148			
Plateau Valley FPD (Volunteer)	1,918,939	28,901			
Platte Canyon FPD (Volunteer)	1,108,118	27,500			
Platte Valley FPD (Volunteer)	2,338,810				
Platteville/Gilcrest FPD (Volunteer)	4,352,093	50,000			
Pleasant View Metro Fire District (Volunteer)	2,014,561	32,485			
Poudre Canyon FPD (Volunteer)	126,386	5,123			
Poudre Fire Authority (Volunteer)	116,941	2,305			
Pueblo Fire (Old Hire)	35,017,279	1,565,925			
Pueblo Fire (DROP)	1,141,286		\$68,414		
Pueblo Police (Old Hire)	49,954,417	1,571,421			

State Contributions	Net Investment Income	Benefit Payments	Refunds	Administrative and Pension Expenses	Change in Fiduciary Net Position	Fiduciary Net Position Dec 31, 2018
	\$429	\$(24,545)		\$(2,971)	\$(27,087)	\$73,836
	1,411	(96,570)		(8,819)	(103,978)	1,852,209
	578	(48,300)		(12,906)	(27,618)	1,252,508
\$21,590	(191)	(15,240)		(4,303)	15,646	1,159,206
	371	(40,693)		(2,971)	(26,337)	318,259
28,800	311	(59,054)		(11,615)	(25,558)	309,627
3,129	24	(5,760)		(3,657)	(2,663)	208,218
	153	(34,612)	\$(1,300)	(3,186)	(14,626)	82,709
22,500	704	(83,041)		(4,087)	(28,012)	617,478
	821	(53,112)		(2,971)	(51,967)	224,490
55,303	2,326	(230,920)		(17,853)	(163,068)	2,196,554
4,500	325	(37,200)		(5,163)	(9,417)	766,781
206,298	(3,754)	(14,400)		(5,808)	309,639	1,728,966
6,725	(998)	(24,384)		(8,390)	7,953	346,453
15,057	220	(29,460)		(5,378)	13,899	304,640
10,400	684	(63,120)		(6,023)	(22,097)	603,542
17,371	627	(61,869)		(4,287)	(28,158)	267,921
12,424	175	(44,284)		(17,853)	(35,021)	488,453
12,549	(609)	(12,757)		(8,604)	16,899	568,630
	(475)	(43,600)		(7,959)	(18,034)	710,501
5,252	(179)	(15,405)	(1,490)	(3,872)	8,328	1,127,968
	712	(56,583)		(5,378)	(29,749)	384,031
14,442	948	(88,500)		(9,034)	(32,144)	651,865
	172	(10,050)		(3,657)	(13,535)	168,755
450	198	(9,450)		(6,023)	(14,325)	216,025
15,756	(450)	(23,094)		(11,185)	(973)	599,720
	455	(57,977)		(8,819)	(46,566)	1,027,551
8,033	(13)	(10,400)		(4,302)	9,934	34,426
	1,127	(70,308)		(4,732)	(73,913)	235,947
	(89)	(780)		(2,797)	(166)	213,852
	(214)			(4,518)	15,268	371,135
2,700	15	(1,200)		(2,582)	(1,067)	67,580
4,251	88	(11,400)		(4,732)	(4,645)	209,734
	604	(70,140)		(7,313)	(47,948)	1,870,991
35,000	916	(100,598)		(6,453)	(43,635)	1,064,483
	1,985	(139,825)		(8,819)	(146,659)	2,192,151
45,000	5,701	(462,686)		(12,476)	(374,461)	3,977,632
	50	(41,291)		(11,185)	(19,941)	1,994,620
	(27)	(2,110)		(6,883)	(3,897)	122,489
3,632	177	(15,045)		(1,722)	(10,653)	106,288
	42,610	(4,579,672)		(31,654)	(3,002,791)	32,014,488
	5,810		(527,888)		(453,664)	687,622
	54,766	(5,510,499)		(27,991)	(3,912,303)	46,042,114

Fiduciary Net Position by Participating Employer

Employer Plan	Fiduciary Net Position Dec 31, 2017	Employer Contributions	Member Contributions	Contributions for Service Reinstatement	Affiliations/ (Withdrawals)
Pueblo Rural FPD (Old Hire)	\$1,769,780	\$51,207			
Rangely Rural FPD (Volunteer)	651,716	\$23,465			
Rattlesnake FPD (Volunteer)	1,118,250	30,817			
Red Feather Lakes FPD (Volunteer)	331,144	18,260			
Red White & Blue FPD (Old Hire)	220,033	48,265			
Red White & Blue FPD (Volunteer)	1,305,009				
Ridgway FPD (Volunteer)	729,044	20,000			
Rio Blanco FPD (Volunteer)	5,157,420	298,844			
Rocky Ford Police (Old Hire)	146,371				
Rocky Ford Fire (Volunteer)	102,659	2,727			
Rocky Mountain VFD (Volunteer)	329,233	5,000			
Sable Altura FPD (Volunteer)	566,817	5,000			
Salida Fire (Old Hire)	106,045	14,074			
Salida Police (Old Hire)	514,030	75,808			
Sheridan Fire (Volunteer)	316,321	47,000			
Silverton San Juan FRA (Volunteer)	339,781	20,000			
South Adams County FPD (Old Hire)	570,379	50,000			
South Adams County FPD (Volunteer)	6,524,551	78,340			
South Arkansas FPD (Volunteer)	139,290				
South Conejos FPD (Volunteer)	274,913	12,288			
South Metro Fire Rescue (Volunteer)	310,954				
Southwest Washington County FPD (Volunteer)	176,075	6,000			
Springfield Police (Old Hire)	423,742				
Springfield Fire (Volunteer)	171,947				
Steamboat Springs VFD (Volunteer)	1,357,481	29,000			
Sterling Fire (Old Hire)	700,391	64,508			
Sterling Police (Old Hire)	302,697				
Sterling Fire (Volunteer)	427,937	13,881			
Stonewall FPD (Volunteer)	1,090,489	50,000			
Stratton FPD (Volunteer)	167,025	3,500			
Sugar City Fire (Volunteer)	103,441				
Sugarloaf FPD (Volunteer)	436,932	25,000			
Telluride FPD (Volunteer)	2,161,964	123,000			
Thornton Fire (Old Hire)	4,461,411	269,653			
Thornton Fire (DROP)	428,707		\$46,777		
Timberline FPD (Volunteer)	1,725,375	20,000			
Trinidad Fire (Old Hire)	649,828	72,529			
Trinidad Police (Old Hire)	36,306	13,070			
Walsh VFD (Volunteer)	96,210	2,000			
Wellington FPD (Volunteer)	1,571,876	40,000			
West Cheyenne FPD (Volunteer)	173,183	2,000			
West Douglas County FPD (Volunteer)	561,960	27,345			
West Metro FPD (Volunteer)	801,604	21,604			

State Contributions	Net Investment Income	Benefit Payments	Refunds	Administrative and Pension Expenses	Change in Fiduciary Net Position	Fiduciary Net Position Dec 31, 2018
	\$2,552	\$(210,234)		\$(4,512)	\$(160,987)	\$1,608,793
\$5,166	494	\$(43,560)		\$(9,250)	(23,685)	628,031
12,600	858	(86,083)		(13,551)	(55,359)	1,062,891
\$6,087	432	(35,370)		(3,872)	(14,463)	316,681
	461	(73,252)		(3,186)	(27,712)	192,321
	1,336	(90,020)		(7,529)	(96,213)	1,208,796
18,000	(86)	(24,600)		(6,453)	6,861	735,905
29,473	711	(275,917)		(13,982)	39,129	5,196,549
	821	(50,198)		(3,378)	(52,755)	93,616
	72	(1,275)		(7,528)	(6,004)	96,655
	802	(50,283)		(6,223)	(50,704)	278,529
	636	(39,600)		(10,094)	(44,058)	522,759
	383	(27,391)		(3,402)	(16,336)	89,709
	1,542	(129,025)		(4,047)	(55,722)	458,308
23,194	786	(100,746)		(4,517)	(34,283)	282,038
10,765	145	(13,937)		(9,249)	7,724	347,505
	916	(78,197)	\$(2,600)	(3,187)	(33,068)	537,311
70,506	8,343	(656,113)		(17,423)	(516,347)	6,008,204
	315	(19,845)		(1,721)	(21,251)	118,039
11,059	178	(22,800)		(9,034)	(8,309)	266,604
	573	(36,300)		(3,227)	(38,954)	272,000
	92	(7,560)		(4,518)	(5,986)	170,089
	699	(44,000)	(1,300)	(2,971)	(47,572)	376,170
1,979	45	(2,280)		(3,872)	(4,128)	167,819
	1,514	(130,065)		(6,238)	(105,789)	1,251,692
	(719)	(119,240)		(3,617)	(59,068)	641,323
	320	(19,992)		(2,971)	(22,643)	280,054
12,493	(23)	(41,220)		(5,593)	(20,462)	407,475
9,450	(587)	(45,485)		(8,389)	4,989	1,095,478
3,150	(86)	(3,480)		(3,872)	(788)	166,237
	117	(4,800)		(3,857)	(8,540)	94,901
	(252)	(40,656)		(10,540)	(26,448)	410,484
70,245	1,115	(211,258)		(23,230)	(40,128)	2,121,836
	7,900	(788,438)	(1,300)	(7,472)	(519,657)	3,941,754
	15,763		(491,247)		(428,707)	0
	2,145	(171,443)		(14,627)	(163,925)	1,561,450
	513	(100,986)		(4,082)	(32,026)	617,802
	100	(14,919)		(3,617)	(5,366)	30,940
1,000	(21)			(4,518)	(1,539)	94,671
	1,706	(146,100)		(6,868)	(111,262)	1,460,614
	126	(4,800)		(5,808)	(8,482)	164,701
24,656	673	(70,920)		(16,132)	(34,378)	527,582
19,444	497	(63,725)		(7,098)	(29,278)	772,326

Fiduciary Net Position by Participating Employer

Employer Plan	Fiduciary Net Position Dec 31, 2017	Employer Contributions	Member Contributions	Contributions for Service Reinstatement	Affiliations/ (Withdrawals)
West Routt FPD (Volunteer)	\$2,954,764	\$62,650			
Westminster VFD (Volunteer)	2,522,866				
Wet Mountain FPD (Volunteer)	2,051,494	77,599			
Wiggins Rural FPD (Volunteer)	1,407,342	120,000			
Wiley Rural FPD (Volunteer)	147,658	1,000			
Windsor Severance FPD (Volunteer)	2,906,523	66,249			
Yampa FPD (Volunteer)	456,337	27,962			
Yuma Fire (Volunteer)	621,480	10,000			
Subtotal Affiliated Local Plans	\$1,611,474,429	\$49,256,346	\$125,178	\$0	\$0
Contributions Receivable at 12/31/17	757,002	(600,260)	(797)		
Contributions Receivable at 12/31/18		658,847	884		
Changes in Net Pension and Other Post- Employment Benefits Liabilities	(6,776,903)				
Pension and Other Post-Employment Benefits Expense, Current Year					
Restatement, GASB 75					
Total Affiliated Local Plans	\$1,605,454,528	\$49,314,933	\$125,265	\$0	\$0
Statewide Death & Disability Plan	\$403,693,032		\$22,684,513		
Contributions Receivable at 12/31/17	533,429		(533,429)		
Contributions Receivable at 12/31/18			556,947		
Changes in Net Pension and Other Post- Employment Benefits Liabilities	(1,697,693)				
Pension and Other Post-Employment Benefits Expense, Current Year					
Restatement, GASB 75					
Total Statewide Death & Disability Plan	\$402,528,768	\$0	\$22,708,031	\$0	\$0
Statewide Defined Benefit Plan	\$2,413,276,447	\$51,566,486	\$147,886,813	\$38,107	
Statewide Defined Benefit Plan (SRA Periodic Payments)	155,461				
Subtotal Statewide Defined Benefit Plan	\$2,413,431,908	\$51,566,486	\$147,886,813	\$38,107	\$0
Contributions Receivable at 12/31/17	2,164,585	(988,496)	(1,176,089)		
Contributions Receivable at 12/31/18		1,080,447	1,352,783		
Changes in Net Pension and Other Post- Employment Benefits Liabilities	(10,149,460)				
Pension and Other Post-Employment Benefits Expense, Current Year					
Restatement, GASB 75					
Total Statewide Defined Benefit Plan	\$2,405,447,033	\$51,658,437	\$148,063,507	\$38,107	\$0

State Contributions	Net Investment Income	Benefit Payments	Refunds	Administrative and Pension Expenses	Change in Fiduciary Net Position	Fiduciary Net Position Dec 31, 2018
\$32,500	\$1,298	\$(184,850)		\$(8,389)	\$(96,791)	\$2,857,973
	2,357	(167,160)		(6,239)	(171,042)	2,351,824
	1,047	(117,144)		(9,465)	(47,963)	2,003,531
89,070	(1,488)	(63,281)		(9,464)	134,837	1,542,179
1,800	18	(2,400)		(3,227)	(2,809)	144,849
59,624	2,845	(288,132)		(11,185)	(170,599)	2,735,924
	(88)	(46,320)		(6,023)	(24,469)	431,868
9,000	237	(20,875)		(10,540)	(12,178)	609,302
\$2,631,698	\$1,987,240	\$(171,209,386)	\$(1,103,109)	\$(2,289,301)	\$(120,601,334)	\$1,490,873,095
(155,945)					(757,002)	0
488,155					1,147,886	1,147,886
				428,314	428,314	(6,348,589)
				(2,532,316)	(2,532,316)	(2,532,316)
						(233,691)
\$2,963,908	\$1,987,240	\$(171,209,386)	\$(1,103,109)	\$(4,393,303)	\$(122,314,452)	\$1,482,906,385
	\$96,106	\$(30,235,382)	\$(38,107)	\$(1,953,652)	\$(9,446,522)	\$394,246,510
					(533,429)	0
					556,947	556,947
				229,606	229,606	(1,468,087)
				(880,355)	(880,355)	(880,355)
						(61,797)
\$0	\$96,106	\$(30,235,382)	\$(38,107)	\$(2,604,401)	\$(10,073,753)	\$392,393,218
	\$(2,247,353)	\$(77,194,066)	\$(3,406,375)	\$(3,227,251)	\$113,416,361	\$2,526,692,808
	11,619	(12,000)		(60)	(441)	155,020
\$0	\$(2,235,734)	\$(77,206,066)	\$(3,406,375)	\$(3,227,311)	\$113,415,920	\$2,526,847,828
					(2,164,585)	0
					2,433,230	2,433,230
				469,827	469,827	(9,679,633)
				(5,372,306)	(5,372,306)	(5,372,306)
						(396,075)
\$0	\$(2,235,734)	\$(77,206,066)	\$(3,406,375)	\$(8,129,790)	\$108,782,086	\$2,513,833,044

Fiduciary Net Position by Participating Employer

Employer Plan	Fiduciary Net Position Dec 31, 2017	Employer Contributions	Member Contributions	Contributions for Service Reinstatement	Affiliations/ (Withdrawals)
Statewide Hybrid Plan - Defined Benefit Component	\$69,872,191	\$1,494,055	\$3,536,361		
Contributions Receivable at 12/31/17	52,100	(34,612)	(17,488)		
Contributions Receivable at 12/31/18		28,072	10,657		
Changes in Net Pension and Other Post-Employment Benefits Liabilities	(293,841)				
Pension and Other Post-Employment Benefits Expense, Current Year					
Restatement, GASB 75					
Total Statewide Hybrid Plan - Defined Benefit Component	\$69,630,450	\$1,487,515	\$3,529,530	\$0	\$0
Colorado Springs New Hire Plan - Fire Component	\$142,035,779	\$4,058,332	\$923,455		
Colorado Springs New Hire Plan - Fire Component (SRA Periodic Payments)	90,117				
Subtotal Colorado Springs New Hire Plan - Fire Component	\$142,125,896	\$4,058,332	\$923,455	\$0	\$0
Contributions Receivable at 12/31/17	297,531	(261,135)	(36,396)		
Contributions Receivable at 12/31/18		91,282	34,947		
Changes in Net Pension and Other Post-Employment Benefits Liabilities	(597,697)				
Pension and Other Post-Employment Benefits Expense, Current Year					
Restatement, GASB 75					
Total Colorado Springs New Hire Plan - Fire Component	\$141,825,730	\$3,888,479	\$922,006	\$0	\$0
Colorado Springs New Hire Plan - Police Component	\$315,606,098	\$7,590,899	\$2,222,616		
Colorado Springs New Hire Plan - Police Component (SRA Periodic Payments)	513,592				
Subtotal Colorado Springs New Hire Plan - Fire Component	\$316,119,690	\$7,590,899	\$2,222,616	\$0	\$0
Contributions Receivable at 12/31/17	490,098	(418,701)	(71,397)		
Contributions Receivable at 12/31/18		227,978	70,883		
Changes in Net Pension and Other Post-Employment Benefits Liabilities	(1,329,411)				
Pension and Other Post-Employment Benefits Expense, Current Year					
Restatement, GASB 75					
Total Colorado Springs New Hire Plan - Police Component	\$315,280,377	\$7,400,176	\$2,222,102	\$0	\$0
FPPA Staff Healthcare Subsidy	\$268,866	\$5,864			
Changes in Net Pension and Other Post-Employment Benefits Liabilities	(1,131)				
Pension and Other Post-Employment Benefits Expense, Current Year					
Restatement, GASB 75					
FPPA Staff Healthcare Subsidy	\$267,735	\$5,864	\$0	\$0	\$0
Total - Members' Benefit Investment Fund	\$4,940,434,621	\$113,755,404	\$177,570,441	\$38,107	\$0

State Contributions	Net Investment Income	Benefit Payments	Refunds	Administrative and Pension Expenses	Change in Fiduciary Net Position	Fiduciary Net Position Dec 31, 2018
	\$(69,943)	\$(1,771,264)	\$(326,973)	\$(88,989)	\$2,773,247	\$72,645,438
					(52,100)	0
					38,729	38,729
				11,604	11,604	(282,237)
				(150,498)	(150,498)	(150,498)
						(11,387)
\$0	\$(69,943)	\$(1,771,264)	\$(326,973)	\$(227,883)	\$2,620,982	\$72,240,045
	\$33,950	\$(8,338,312)		\$(74,266)	\$(3,396,841)	\$138,638,938
	6,624	(12,000)		(20)	(5,396)	84,721
\$0	\$40,574	\$(8,350,312)	\$0	\$(74,286)	\$(3,402,237)	\$138,723,659
					(297,531)	0
					126,229	126,229
				12,549	12,549	(585,148)
				(241,203)	(241,203)	(241,203)
						(21,744)
\$0	\$40,574	\$(8,350,312)	\$0	\$(302,940)	\$(3,802,193)	\$138,001,793
	\$(4,868)	\$(13,899,402)		\$(145,894)	\$(4,236,649)	\$311,369,449
	38,958	(25,831)		(140)	12,987	526,579
\$0	\$34,090	\$(13,925,233)	\$0	\$(146,034)	\$(4,223,662)	\$311,896,028
					(490,098)	0
					298,861	298,861
				27,571	27,571	(1,301,840)
				(556,064)	(556,064)	(556,064)
						(48,889)
\$0	\$34,090	\$(13,925,233)	\$0	\$(674,527)	\$(4,943,392)	\$310,288,096
	\$154	\$(7,071)		\$(9,464)	\$(10,517)	\$258,349
				1,979	1,979	848
				(2,386)	(2,386)	(2,386)
						(40)
\$0	\$154	\$(7,071)	\$0	\$(9,871)	\$(10,924)	\$256,771
\$2,963,908	\$(147,513)	\$(302,704,714)	\$(4,874,564)	\$(16,342,715)	\$(29,741,646)	\$4,909,919,352

Fiduciary Net Position by Participating Employer

Employer Plan	Fiduciary Net Position Dec 31, 2017	Employer Contributions	Member Contributions	Contributions for Service Reinstatement	Affiliations/ (Withdrawals)
Members' Statewide Money Purchase Plan	\$12,435,914	\$425,505	\$413,119		
Contributions Receivable at 12/31/17	23,809	(11,801)	(12,008)		
Contributions Receivable at 12/31/18		16,738	16,325		
Total Members' Statewide Money Purchase Plan	\$12,459,723	\$430,442	\$417,436	\$0	\$0
Self-Directed Assets for Affiliated Local & DB System					
Statewide Defined Benefit Plan (SRA)	\$24,123,753		\$7,261,092		
Statewide Defined Benefit Plan (DROP)	74,738,493		19,506,634		
Statewide Hybrid Plan - MP Component	158,607,098	\$1,678,010	2,806,932		\$85,589,804
Statewide Hybrid Plan (DROP)	1,045,399		265,337		
Colorado Springs New Hire Plan - Fire Component (DROP)	8,786,566		2,437,975		
Colorado Springs New Hire Plan - Fire Component (SRA)	4,127				
Colorado Springs New Hire Plan - Police Component (DROP)	18,712,528		3,968,041		
Aurora Fire (DROP)	2,015,025		81,658		
Aurora Police (DROP)	1,792,375				
Colorado Springs Fire (DROP)	590,291				
Colorado Springs Police (DROP)	1,030,406				
Denver Fire (DROP)	5,336,257		124,809		
Denver Police (DROP)	3,116,847		84,559		
Pueblo Fire (DROP)	477,865		527,888		
Thornton Fire (DROP)			491,247		
Subtotal Self Directed Assets for Affiliated Local & DB System	\$300,377,030	\$1,678,010	\$37,556,172	\$0	\$85,589,804
Contributions Receivable at 12/31/17	182,748	(56,208)	(126,540)		
Contributions Receivable at 12/31/18		60,305	138,889		
Total Self-Directed Assets for Affiliated Local & DB System	\$300,559,778	\$1,682,107	\$37,568,521	\$0	\$85,589,804
IRC 457 Deferred Compensation Plan	\$138,925,934	\$1,603,205	\$12,430,169		
Contributions Receivable at 12/31/17	355,899	(38,593)	(317,306)		
Contributions Receivable at 12/31/18		42,389	311,337		
Total IRC 457 Deferred Compensation Plan	\$139,281,833	\$1,607,001	\$12,424,200	\$0	\$0
Total - Members' Self Directed Investment Fund	\$452,301,334	\$3,719,550	\$50,410,157	\$0	\$85,589,804
Grand Total - FPPA	\$5,392,735,955	\$117,474,954	\$227,980,598	\$38,107	\$85,589,804

State Contributions	Net Investment Income	Benefit Payments	Refunds	Administrative and Pension Expenses	Change in Fiduciary Net Position	Fiduciary Net Position Dec 31, 2018
	\$(580,446)		\$(1,775,098)	\$(17,682)	\$(1,534,602)	\$10,901,312
					(23,809)	0
					33,063	33,063
\$0	\$(580,446)	\$0	\$(1,775,098)	\$(17,682)	\$(1,525,348)	\$10,934,375
	\$(1,008,545)		\$(7,638,561)	\$(49,246)	\$(1,435,260)	\$22,688,493
	(2,801,158)		(24,836,769)	(149,703)	(8,280,996)	66,457,497
	(11,278,510)		(82,576,542)	(705,446)	(4,485,752)	154,121,346
	(10,311)		(356,796)	(5,998)	(107,768)	937,631
	(446,157)		(1,747,766)	(18,829)	225,223	9,011,789
	(38)		(3,800)	(12)	(3,850)	277
	(857,739)		(2,755,814)	(31,109)	323,379	19,035,907
	(33,848)		(52,172)	(2,388)	(6,750)	2,008,275
	(31,113)		(151,018)	(4,917)	(187,048)	1,605,327
	(23,256)		(58,020)	(657)	(81,933)	508,358
	(9,704)		(3,000)	(1,486)	(14,190)	1,016,216
	(46,387)		(401,809)	(6,629)	(330,016)	5,006,241
	(55,490)		(110,234)	(4,064)	(85,229)	3,031,618
	(19,310)		(58,840)	(847)	448,891	926,756
	(3,202)		(487,874)	(171)	0	0
\$0	\$(16,624,768)	\$0	\$(121,239,015)	\$(981,502)	\$(14,021,299)	\$286,355,731
					(182,748)	0
					199,194	199,194
\$0	\$(16,624,768)	\$0	\$(121,239,015)	\$(981,502)	\$(14,004,853)	\$286,554,925
	\$(8,900,852)		\$(6,823,413)	\$(228,730)	\$(1,919,621)	\$137,006,313
					(355,899)	0
					353,726	353,726
\$0	\$(8,900,852)	\$0	\$(6,823,413)	\$(228,730)	\$(1,921,794)	\$137,360,039
\$0	\$(26,106,066)	\$0	\$(129,837,526)	\$(1,227,914)	\$(17,451,995)	\$434,849,339
\$2,963,908	\$(26,253,579)	\$(302,704,714)	\$(134,712,090)	\$(17,570,629)	\$(47,193,641)	\$5,344,768,691

Schedule of Administrative and Investment Expenses

Fire & Police Members' Benefit Investment Fund

Expense Group	2018	2017	2016	2015
Professional Contracts				
Actuarial Contract	\$424,594	\$343,251	\$367,009	\$412,412
Audit Fees	95,289	75,091	105,612	106,109
Computer Maintenance & Lease	602,602	524,983	508,417	454,390
Insurance & Bonding	200,295	180,919	165,166	160,289
Legal & Legislative Counsel	47,226	(34,263)	113,521	129,382
Management Consulting	10,725	102,256	68,887	17,064
Medical Exam Fees	262,761	253,255	243,204	202,733
Hearing Officers - D&D	8,208	9,440	17,444	7,801
Outside Services/Contract Help	32,754	62,431	106,074	57,324
Records Management	1,995	6,068	1,595	1,951
Total Professional Contracts	\$1,686,449	\$1,523,431	\$1,696,929	\$1,549,455
Personnel Services				
Salaries	\$3,776,002	\$3,495,905	\$3,286,289	\$3,036,727
Employee Benefits	1,302,895	1,304,530	1,048,276	927,428
Employment Programs	28,278	88,344	38,119	28,005
Total Personnel Services	\$5,107,175	\$4,888,779	\$4,372,684	\$3,992,160
Staff Education				
Tuition Assistance Program	\$31,860	\$33,409	\$37,867	\$19,200
Conferences & Seminars	39,677	33,110	27,233	26,589
Total Staff Education	\$71,537	\$66,519	\$65,100	\$45,789

2014	2013	2012	2011	2010	2009
\$292,328	\$288,200	\$288,000	\$324,000	\$272,000	\$453,000
126,094	61,285	59,555	57,875	56,220	39,000
523,686	532,616	494,693	367,028	225,997	344,595
149,391	138,761	155,438	121,532	158,784	111,335
99,609	244,073	123,582	141,701	73,035	64,159
24,781	6,050		21,624	23,375	29,400
230,698	184,795	187,797	144,008	157,822	144,441
22,028	21,284	22,773	23,948	13,625	13,965
55,928	77,096	39,585	58,411	53,392	54,705
6,245	6,220	6,913	6,366	5,972	5,726
\$1,530,788	\$1,560,380	\$1,378,336	\$1,266,493	\$1,040,222	\$1,260,326

\$3,033,856	\$2,853,094	\$3,740,834	\$3,161,744	\$2,952,056	\$2,839,136
1,000,083	851,929	1,128,226	888,233	829,521	747,331
47,951	18,032	18,087	16,980	6,728	22,134
\$4,081,890	\$3,723,055	\$4,887,147	\$4,066,957	\$3,788,305	\$3,608,601

\$45,369	\$48,424	\$16,927	\$18,214	\$13,429	\$8,800
25,932	25,786	25,299	22,028	21,321	19,788
\$71,301	\$74,210	\$42,226	\$40,242	\$34,750	\$28,588

Schedule of Administrative and Investment Expenses

Fire & Police Members' Benefit Investment Fund

Expense Group	2018	2017	2016	2015
Other Operating Expenses				
Company Vehicles	\$5,275	\$3,447	\$3,523	\$4,105
Board Expenses	53,810	57,820	51,682	66,905
Data Processing Supplies	61,442	70,933	48,961	81,986
Equipment Rental & Maintenance	24,969	27,195	41,712	40,946
Meetings & Travel	15,848	25,996	18,620	19,503
Operating Expense - Two DTC	209,842	136,803	117,211	134,161
Postage	17,897	21,452	28,664	30,702
Printing & Mailing	53,967	68,606	61,586	63,476
Retirement Services	24,368	17,816	18,362	15,047
Subscriptions & Dues	20,458	18,773	17,904	18,045
Supplies	20,682	43,252	21,946	27,127
Telephone	10,368	8,650	8,683	9,793
Total Other Operating Expense	\$518,926	\$500,743	\$438,854	\$511,796
Total Operating Expense	\$7,384,087	\$6,979,472	\$6,573,567	\$6,099,200
Changes in Net Pension and Other Post-Employment Benefits Liabilities	\$(1,181,450)	\$(1,038,636)	\$(920,107)	\$(802,974)
Depreciation/Amortization Expense	408,099	338,693	884,904	865,880
Delinquency Income	(3,149)	(3,707)	(1,687)	(30,843)
Total Administrative Expense	\$6,607,587	\$6,275,822	\$6,536,677	\$6,131,263
Capital Expenditures	\$441,925	\$689,303	\$596,117	\$339,823
Total Administrative Expense and Capital	\$7,049,512	\$6,965,125	\$7,132,794	\$6,471,086
Asset Based Fees				
Consulting	\$1,390,886	\$682,900	\$756,225	\$743,225
Management Fees	37,629,914	38,887,245	31,361,216	30,202,534
Legal Fees	409,319	236,959	325,366	252,619
Closing Costs	38,674	90,675	55,614	106,869
FPPA Investment Personnel Costs	3,122,579	2,844,633	2,518,564	2,375,749
Bank/Securities Lending Fees	525,355	566,910	800,632	775,499
Other Misc. Expenses				
Certifications & Training	8,780	682		
Computer Software	599,293	499,187	245,760	129,853
Conferences & Seminars	22,685	10,375		
Meetings & Travel / Due Diligence	113,300	111,402	91,953	130,260
Subscriptions & Dues	16,397	14,983	11,165	5,375
Printing & Mailing Expense			4,527	4,457
Total Asset Based Fees	\$43,877,182	\$43,945,951	\$36,171,022	\$34,726,440

2014	2013	2012	2011	2010	2009
\$4,244	\$3,815	\$3,275	\$5,790	\$6,290	\$3,446
56,292	31,017	44,133	27,760	30,504	31,884
76,736	43,268	160,361	81,452	60,189	45,135
35,690	32,413	34,176	26,441	29,078	31,111
29,712	14,323	11,813	15,607	25,267	20,628
128,204	106,774	81,678	74,930	98,926	80,759
22,166	21,775	39,972	62,299	58,828	57,794
66,814	80,644	64,249	84,172	73,045	68,414
13,935	10,546	6,886	7,247	7,441	9,926
16,465	14,817	16,736	18,497	23,699	21,131
47,471	31,103	16,213	62,152	38,437	40,478
9,949	13,486	12,405	15,150	23,701	28,123
\$507,678	\$403,981	\$491,897	\$481,497	\$475,405	\$438,829
\$6,191,657	\$5,761,626	\$6,799,606	\$5,853,848	\$5,338,682	\$5,336,344
\$869,843	\$821,671	\$808,550	\$784,935	\$777,727	\$166,754
(4,738)	(22,690)				
\$7,056,762	\$6,560,607	\$7,608,156	\$6,638,783	\$6,116,409	\$5,503,098
\$470,437	\$126,977	\$375,571	\$391,016	\$202,049	\$6,700
\$7,527,199	\$6,687,584	\$7,983,727	\$7,029,799	\$6,318,458	\$5,509,798
\$746,225	\$779,225	\$881,875	\$412,788	\$217,000	\$242,125
26,132,254	24,938,863	19,963,855	16,457,643	15,142,901	13,399,161
451,784	647,946	203,171	79,304	64,736	80,396
102,850	65,836	54,117	26,273	10,000	27,398
1,667,279	1,416,658				
663,347	799,320	673,888	633,304	510,865	628,407
112,157	94,474	92,402	48,104		
98,009	65,573	80,567	54,232		
5,200	5,497	4,580	4,255		
4,763	4,337	5,662	3,025		
\$29,983,868	\$28,817,729	\$21,960,117	\$17,718,928	\$15,945,502	\$14,377,487

Payments to Consultants

December 31, 2018

Actuarial Consultants

Gabriel Roeder Smith & Co.	\$426,551
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Auditors

Eide Bailly, LLP	\$95,705
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BKD, LLP	20,236
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Investment Consultants

Cambridge Associates, LLC	\$1,225,000
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AndCo Consulting, LLC	80,000
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Subrosa Investigations, LLC	26,162
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Pension Consulting Alliance	15,000
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IW Financial	10,500
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Albourne America LLC	5,376
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Kroll Associates, Inc.	4,200
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Scherzer International Risk Management Background Investigations	3,312
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EIRIS Conflict Risk Network	1,000
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Legal Counsel

Jackson Walker LLP	\$200,549
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DLA Piper LLP	120,594
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Stieber Campbell, P.C.	84,991
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Ice Miller LLP	11,406
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Thomas L. Kanan, Esq.	5,115
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SJT Law, LLC	3,093
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Murray Dahl Kuechenmeister & Renaud LLP	550
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Legislative Consultants

Lombard & Clayton	\$40,000
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Management Consultants

Choose People	\$7,250
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Jan Hargrave & Associates	2,500
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Nicoletti-Flater Associates	1,800
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Medical Consultants

Clarence Henke, M.D., P.C.	\$26,813
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Douglas Scott, M.D., M.P.H.	20,040
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Annu Ramaswamy, M.D., P.C.	20,000
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Recordkeeping Services

Fidelity Investments	\$373,045
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Total Payments To Consultants	\$2,830,788
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Investment Section

General Information

This section of the comprehensive annual financial report has been prepared by the Investment Division of the Fire & Police Pension Association of Colorado.

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 \$5.345 billion in fair value as of December 31, 2018.

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

- The Fire & Police Members' Benefit Investment Fund (\$4.910 billion) defined benefit plans. General Information and data found on the following pages, and
- The Fire & Police Members' Self-Directed Investment Fund (\$435 million) defined contribution plans.





Dear Members:

The Fire & Police Members' Benefit Investment Fund returned 0.10% (net of fees) in 2018, outperforming its implementation benchmark of -1.83%. The total fund has achieved a 9.23% annualized return since its inception.

Market Overview

On the heels of solid performance for most of the year, risk assets experienced a significant decline in Q4 2018 resulting in negative performance for the year. Volatility returned to the equity markets after historic lows in the prior year. Slowing global growth and trade tensions were contributing factors. Investors continue to face the challenges of investing in the late stages of an expansionary economic cycle. As anticipated, the Federal Reserve raised interest rates four times over the course of 2018, although they have subsequently moderated their stance for further rate hikes in 2019. While the bond market was heading for a negative year performance, the wave of year-end risk aversion resulted in a flight to quality for Treasuries and a rebound in bond market performance. The yield curve flattened, and at some points inverted, with short-term yields rising and long-term government yields remaining low. An inverted yield curve is a popular indicator of a forthcoming recession. In the currency markets, the U.S. dollar appreciated against most major currencies in 2018.

FPPA Asset Classes

- **Public Equity:** FPPA implements a global equity portfolio with meaningful exposure to Non-US equities. This was a slight headwind to the portfolio as Non-US markets underperformed US markets in 2018. Although performance was negative for the year, the portfolio slightly exceeded its benchmark performance. Outperformance of one of FPPA's larger global equity managers and the currency overlay program were the primary contributors to the outperformance. FPPA made changes to its investment manager line up in the small cap space along with the implementing a new global equity strategy called active extension.
- **Equity Long/Short:** Although performance was negative for the year, FPPA's dedicated equity long/short portfolio significantly outperformed its benchmark performance. Surpassing its 6-year track record, since inception portfolio performance has exceeded its benchmark by 2.4% on an annualized basis. 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:** FPPA's fixed income portfolio slightly lagged its benchmark performance for the year. Relative performance was attributable to one of the unconstrained strategies which has a heavier credit exposure. FPPA added one new fixed income manager relationship this year with the hiring of Garcia Hamilton for a core fixed income strategy.
- **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. Performance for these strategies continued to struggle through most of the year. Volatile markets in the fourth quarter were the primary contributors to underperformances.
- **Absolute Return:** The portfolio produced a positive return for the year, significantly outperforming a negative return for its benchmark. Most of the managers contributed to the outperformance with the exception of two alternative beta strategies. During the year, FPPA reduced the overall manager count in the portfolio, but did add a new long/short equity and multi-strategy relationship.
- **Private Markets:** In 2018, FPPA committed \$359 million with seventeen managers in various private capital, real estate and real assets strategies. FPPA continued its prudent multi-year process of reaching its long-term allocation target of 30% into these strategies. The aggregate private markets portfolio had a solid year of performance.

The Investment Department continues to grow and is now a staff of 12 seasoned professionals. The staff is supported by a strong governance structure of the FPPA Board, Investment Committee, Executive Director and Investment Consultant, 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 that 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 fiduciaries for the Funds and are required to discharge their duties solely in the interest of fund participants and beneficiaries. The Board establishes and maintains investment policies and objectives, approves investment allocation policy targets, sets risk tolerance, and allocates resources to support the investment program. The Board oversees the implementation and compliance of the investment program and relies upon the diligence and recommendations of staff, supported as necessary by the diligence and concurrence of consultants.

The assets in the Fire & Police Members' Benefit Investment Fund are managed primarily by professional investment management firms.

The Association's investment staff coordinates and monitors Fund investments, 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 overall investment objective of the Fund is to prudently manage and balance the investment needs (risks and return) of all plans participating in the Fund, including the need to eliminate current unfunded liabilities and/or to protect surpluses. In developing long-term investment objectives, investment class allocations, and investment guidelines, we recognize that the Fund includes the assets of several different benefit plans, each with a distinct time horizon, risk tolerance, cash flow and liquidity needs, number of participants and benefit adjustment objectives. The FPPA Board expects the objectives to be fulfilled within the levels of risk that a prudent investor would take under similar conditions.

At its September 2018 meeting, the board of directors reviewed recommended changes to the actuarial assumptions. Beginning in 2019, the investment objective of the Fund is to achieve a compound nominal rate of return on invested assets of 7.0%.

Investment Allocation

The Board will conduct an asset/liability study as needed, but at a minimum every three years. The purpose of the study is to develop appropriate investment allocation targets and ranges which are generally expected to achieve the performance objectives relative to the liability and liquidity needs of the Fund and the overall risk tolerance of the Board. The Board relies upon analyses and recommendations from the Staff, Investment Consultant, FPPA's actuary, and any other expert opinion that it determines is advisable.

The FPPA Board establishes and continually updates investment allocation targets. At the end of 2018, the following investment allocation targets were in effect: global equity 37.0%; equity long/short 9.0%; fixed income & cash 17.0%; absolute return 9.0%; managed futures 4.0%; and private markets 24.0%.

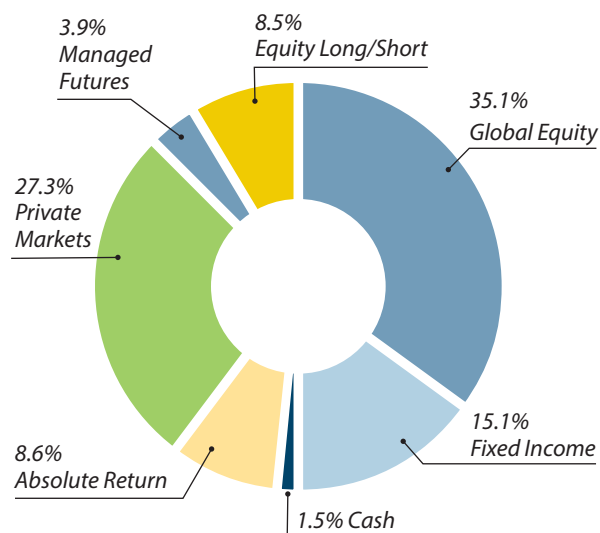
For the Fire & Police Members' Benefit Investment Fund, as of December 31, 2018, the Association employed the external investment managers listed further in this section.

Basis of Presentation

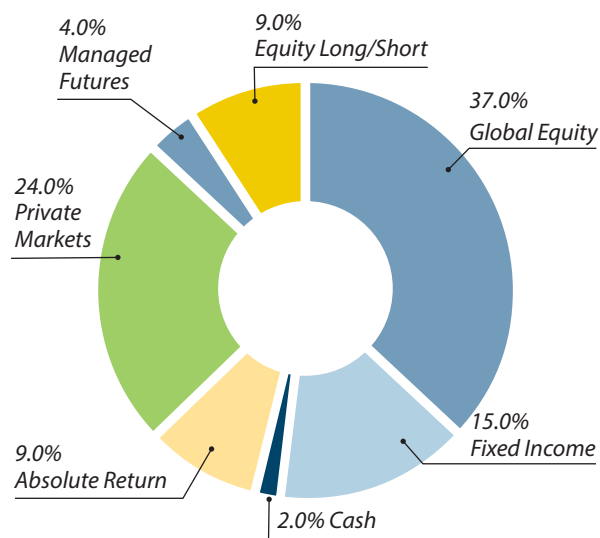
The assets of the Fire & Police Members' Benefit Investment Fund are presented at fair value based on the asset balances of the investment portfolio. The fair value of assets per the financial statements are reallocated to reflect investment exposures on a trade date basis, to account for cash held within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

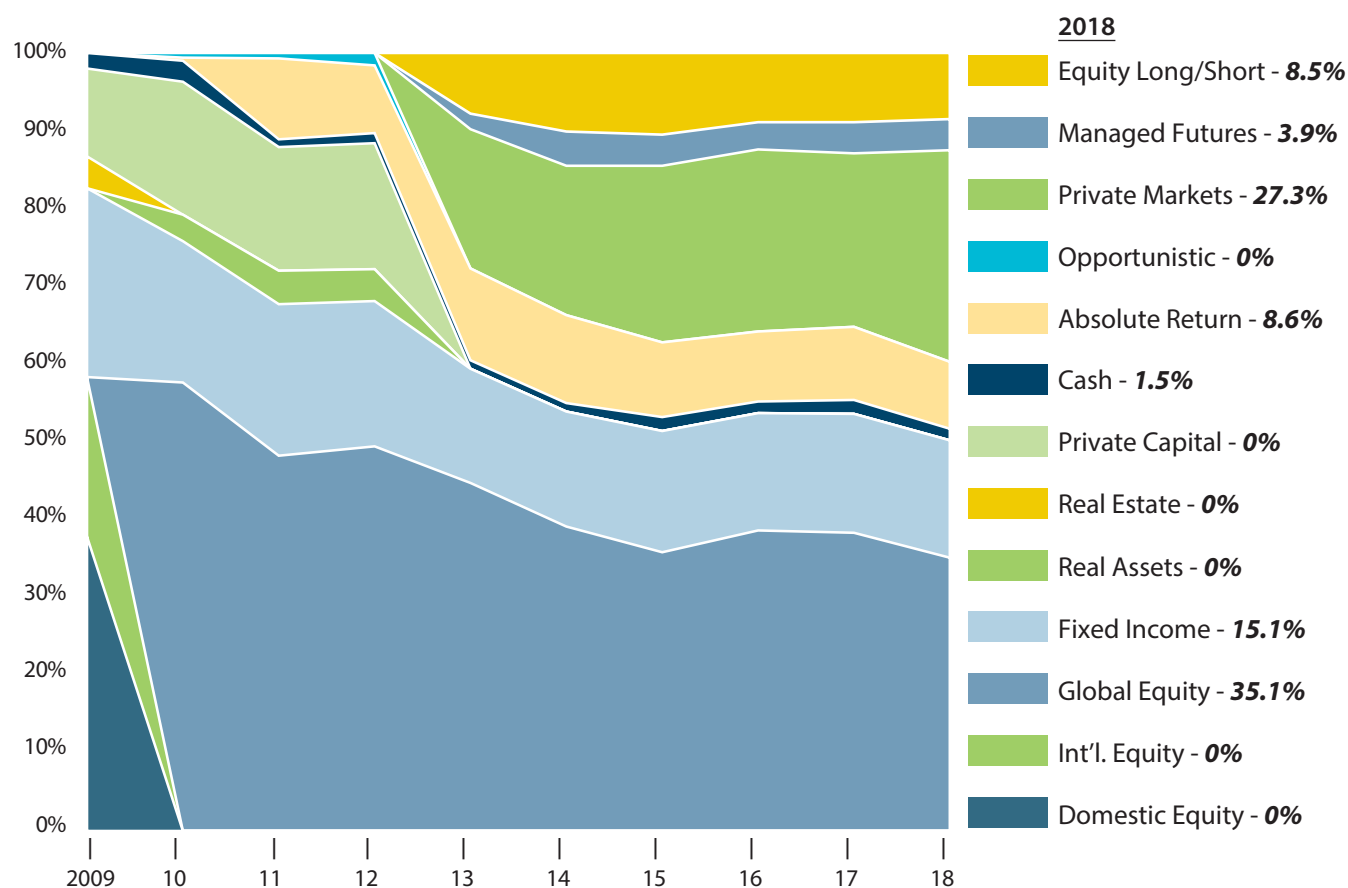
2018 Asset Allocation



2018 Target Asset Allocation



■ FPPA Asset Allocation 2009 - 2018

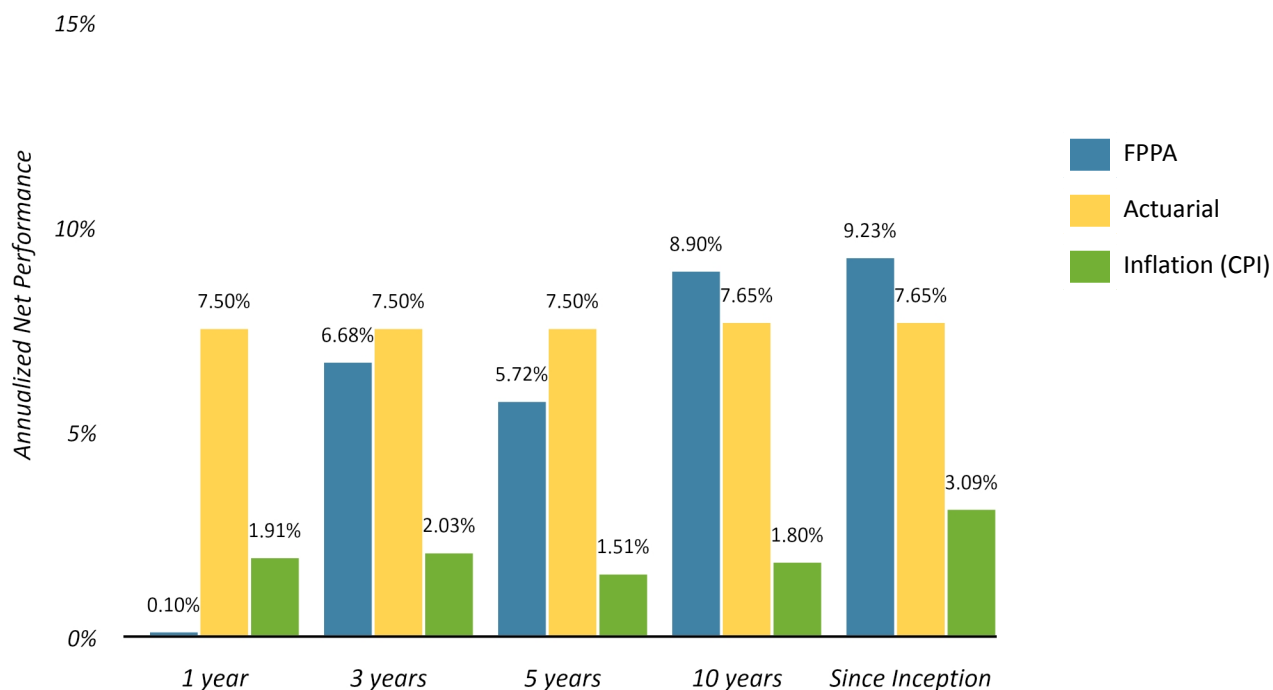


■ Investment Summary as of December 31, 2018

	Fair Value per Financial Statement	Reallocation	Fair Value Per Investment Portfolio	Percent of Fair Value
Global Equity	\$1,585,017,605	\$142,702,433	\$1,727,720,038	35.1%
Equity Long/Short	361,912,064	58,810,433	420,722,497	8.5%
Fixed Income	753,301,618	(12,546,142)	740,755,476	15.1%
Managed Futures	194,518,360	0	194,518,360	4.0%
Absolute Return	422,637,816	69,377	422,707,193	8.6%
Private Markets				
Real Assets	389,640,327	(10,216,251)	379,424,076	7.7%
Real Estate	221,254,751	1,381,614	222,636,365	4.5%
Private Capital	716,313,228	22,730,366	739,043,594	15.0%
Investment Cash & Short Term	241,966,609	(168,124,714)	73,841,895	1.5%
Securities Lending Investment Pool	53,283,660	(53,283,660)		0.0%
	\$4,939,846,038	\$(18,476,544)	\$4,921,369,494	100.0%

*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, 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 – 2018)



■ Asset Allocation by Category and Investment Manager

Asset Class Manager	Investment Style	Management Fees	1 Year Net Return %	Total Assets	% of Total Fund Assets
Global Equity					
Allianz Best Styles	Active World Equity	\$592,079	(9.80)%	\$181,094,233	3.68 %
Artio Global Investors ¹	Active EAFE	0	(4.80)%	5,027	0.00 %
Baillie Gifford Overseas	Active Emerging Markets	380,534	(15.46)%	60,596,226	1.23 %
BNP Paribas FX Overlay ⁵	Foreign Currency Overlay	373,553	N/A	17,995,711	0.37 %
DE Shaw World ³	Active World Equity	201,337	N/A	128,712,915	2.62 %
Driehaus	Active Global Small Cap	847,417	(16.91)%	56,168,862	1.14 %
Global Transition Account	MSCI World Index	0	N/A	49,855	0.00 %
Kabouter International SMID ³	Active Global Small Cap	0	N/A	60,443,279	1.23 %
Kayne Anderson Midstream	MLP	337,242	(15.11)%	29,261,915	0.60 %
LSV Asset Management ¹	Active EAFE	0	(4.80)%	13,838	0.00 %
Mellon S&P 600 ³	S&P 600	485	N/A	54,413,238	1.11 %
Neumeier Poma ³	Active Small Cap Value	43,204	N/A	59,040,887	1.20 %
Numeric EM Core	Active Emerging Markets	579,002	(17.90)%	90,654,776	1.84 %
Russell US Equity Overlay ²	US Small Cap	118,986	N/A	0	0.00 %
SSGA EDHEC ²	Active World Equity	72,194	(13.36)%	218,800	0.00 %
SSGA EM Enhanced	Active Emerging Markets	108,523	(13.53)%	51,854,460	1.05 %
SSgA MSCI US	MSCI US	132,290	(4.57)%	373,275,776	7.59 %
SSgA MSCI World ¹	MSCI World Index	0	N/A	154	0.00 %
SSgA MSCI World ex. US	MSCI World ex. US	93,182	(13.75)%	233,468,469	4.74 %
Walter Scott	Active World Equity	1,303,227	(1.04)%	199,817,640	4.06 %
Winton Global ²	Active World Equity	13,034	48.37 %	81,897	0.00 %
WMQS Global ³	Active World Equity	222,237	N/A	44,702,660	0.91 %
Russell	Fund Overlay	254,365	(9.31)%	85,849,420	1.74 %
Total Global Equity		\$5,672,891		\$1,727,720,038	35.11 %
Equity Long/Short					
AKO	Equity Long/Short	\$782,254	2.26 %	\$50,368,812	1.02 %
Anchor Bolt	Equity Long/Short	597,077	(14.50)%	41,749,120	0.85 %
Hitchwood Capital	Equity Long/Short	638,418	3.73 %	51,470,184	1.05 %
Luxor	Equity Long/Short	0	8.31 %	2,919,290	0.06 %
Palestra Capital	Equity Long/Short	864,106	(2.31)%	58,047,492	1.18 %
Pershing Square	Equity Long/Short	47,406	5.21 %	463,559	0.01 %
Rivulet Capital	Equity Long/Short	722,708	5.90 %	54,732,883	1.11 %
Sachem Head	Equity Long/Short	763,988	(6.21)%	41,055,290	0.83 %
Senator Global Opportunity	Equity Long/Short	52,612	(3.52)%	683,834	0.02 %
Southpoint	Equity Long/Short	913,515	(3.73)%	61,568,993	1.25 %
Tessera QP Small Cap	Equity Long/Short	712,872	(5.21)%	44,663,040	0.91 %
Yiheng Capital ³	Equity Long/Short	0	N/A	13,000,000	0.26 %
Total Equity Long/Short		\$6,094,956		\$420,722,497	8.55 %

■ Asset Allocation by Category and Investment Manager

Asset Class Manager	Investment Style	Management Fees	1 Year Net Return %	Total Assets	% of Total Fund Assets
Fixed Income					
Fixed Income Impaired		\$0	N/A	\$9,816	0.00 %
Garcia Hamilton ³	Core	55,856	N/A	131,357,122	2.67 %
Loomis Sayles Core	Core	234,469	(0.02)%	136,151,030	2.77 %
Manulife	Unconstrained Bonds	353,757	(2.80)%	99,682,388	2.03 %
PriVest	Investment Grade Bonds	134,062	0.54 %	45,400,322	0.92 %
Prudential ABS Return	Unconstrained Bonds	599,606	0.67 %	135,600,769	2.75 %
SSgA BC Agg Index Fund	Core	(6,981)	0.06 %	192,554,029	3.91 %
Total Fixed Income		\$1,370,769		\$740,755,476	15.05 %
Managed Futures					
AHL Pure Momentum	Hedge Fund	\$605,117	(3.25)%	\$52,455,124	1.07 %
Graham Tactical Trend	Hedge Fund	287,316	(16.18)%	46,494,698	0.94 %
KeyQuant Key Trends	Hedge Fund	510,023	(6.77)%	46,455,042	0.94 %
Winton Diversified Futures	Hedge Fund	418,933	(0.86)%	49,113,496	1.00 %
Total Managed Futures		\$1,821,389		\$194,518,360	3.95 %
Absolute Return					
Alphadyne Global	Hedge Fund	\$786,344	15.56 %	\$44,676,337	0.91 %
AQR Delta II	Hedge Fund	522,226	(15.69)%	47,695,258	0.97 %
AQR SPF	Hedge Fund	369,454	(15.11)%	33,113,448	0.67 %
Autonomy Global Macro	Hedge Fund	718,726	16.89 %	43,468,932	0.88 %
Citadel Kensington ³	Hedge Fund	0	7.78 %	44,797,076	0.91 %
HBK	Hedge Fund	838,369	2.31 %	56,576,078	1.15 %
Hudson Bay Arbitrage Enhanced	Hedge Fund	309,970	6.26 %	32,221,352	0.66 %
Hudson Bay ³	Hedge Fund	100,000	N/A	29,829,143	0.61 %
KCL Capital ³	Hedge Fund	232,761	N/A	37,968,084	0.77 %
MKP Opportunity ²	Hedge Fund	192,587	N/A	0	0.00 %
Pharo Macro	Hedge Fund	1,061,531	2.14 %	52,292,108	1.06 %
Soroban	Hedge Fund	153,439	(6.06)%	69,377	0.00 %
Total Absolute Return		\$5,285,407		\$422,707,193	8.59 %

■ Asset Allocation by Category and Investment Manager

Asset Class Manager	Investment Style	Management Fees	1 Year Net Return %	Total Assets	% of Total Fund Assets
Private Markets					
Real Assets					
Alpha Petro Holdco ⁴	Oil & Gas	\$0	N/M	\$5,948,486	0.12 %
Arclight Capital V	Energy Infrastructure	167,833	54.26 %	7,838,575	0.16 %
Arroyo Energy II ⁴	Energy Infrastructure	385,295	N/M	28,178,020	0.57 %
Broadriver II ⁴	Life Settlements	96,250	N/M	22,526,730	0.46 %
Broadriver III ³	Life Settlements	245,000	N/A	1,736,924	0.04 %
Capital Royalty II	Diversified Private Credit	37,408	8.29 %	6,175,417	0.13 %
EIG Real Assets XV	Energy Infrastructure	138,879	(2.58)%	9,808,995	0.20 %
EIG Real Assets XVI	Energy Infrastructure	136,419	9.64 %	13,796,984	0.28 %
Energy Capital Partners II	Energy Infrastructure	71,039	(27.05)%	2,697,043	0.06 %
Energy Capital Partners III	Energy Infrastructure	201,848	9.96 %	14,383,210	0.29 %
Freestone Series I	Diversified Real Assets	938,137	20.59 %	86,942,350	1.77 %
Freestone Series II ⁴	Diversified Real Assets	13,421	N/M	14,891,483	0.30 %
Iberia Credit II ⁴	Diversified Private Credit	95,340	N/M	20,323,474	0.41 %
Incus Credit III ³	Diversified Private Credit	0	N/A	2,484,515	0.05 %
Petroleum Equity Rho ⁴	Oil & Gas	791,253	N/M	21,467,644	0.44 %
Raven I	Asset Backed Lending	103,673	5.84 %	4,960,575	0.10 %
Raven III	Asset Backed Lending	352,978	10.79 %	13,362,786	0.27 %
Riverrock Euro II ⁴	Diversified Private Credit	44	N/M	2,519,503	0.05 %
Rosemawr III ⁴	Diversified Private Credit	84,422	N/M	12,371,576	0.25 %
Scout I-B	Oil & Gas	150,000	24.25 %	10,169,441	0.21 %
Scout II-B	Oil & Gas	435,614	17.21 %	35,120,952	0.71 %
Scout III-B ⁴	Oil & Gas	293,089	N/M	29,152,712	0.59 %
Scout IV-B ³	Oil & Gas	192,595	N/A	22,781,170	0.46 %
<i>Valuation Adjustment⁷</i>				(10,214,489)	(0.21)%
Total Real Assets		\$4,930,537		\$379,424,076	7.71 %
Real Estate					
Blackrock Diamond ⁶	Value Added	\$0	N/A	\$9,246	0.00 %
Blackstone RE VI	Opportunistic	31,706	10.61 %	1,932,942	0.04 %
Blackstone RE VII	Opportunistic	156,587	10.67 %	10,678,174	0.22 %
Blackstone RE VIII	Opportunistic	450,000	13.67 %	22,850,608	0.46 %
H/2 Real Estate	Distressed Debt	70,929	10.39 %	1,795,900	0.04 %
JP Morgan	Core	733,242	6.98 %	76,196,327	1.55 %
Locust Point ³	Real Estate Debt	0	N/A	6,483,358	0.13 %
Morgan Stanley	Core	360,074	8.01 %	35,975,201	0.73 %
Pauls REO 2012	Real Estate Debt	11,416	(51.66)%	38,956	0.00 %
Pauls REO 2014	Real Estate Debt	8,663	(68.08)%	44,222	0.00 %
Prime Storage II ³	Opportunistic	100,470	N/A	9,549,014	0.19 %
PRISA	Core	91,348	7.73 %	38,920,491	0.79 %
RREEF	Core	0	(2.62)%	25,895	0.00 %
Velocis II	Value Added	44,034	8.64 %	16,754,416	0.34 %
<i>Valuation Adjustment⁷</i>				1,381,615	0.03 %
Total Real Estate		\$2,058,469		\$222,636,365	4.52 %

■ Asset Allocation by Category and Investment Manager

Asset Class Manager	Investment Style	Management Fees	1 Year Net Return %	Total Assets	% of Total Fund Assets
Private Capital					
Alchemy Special III		\$61,340	(1.00%)	\$5,675,159	0.12%
American Securities Partners VI		6,036	25.69%	6,534,905	0.13%
Ascribe Opportunity Fund II		50,285	(6.73%)	4,057,809	0.08%
Ascribe Opportunity Fund III		108,892	(12.44%)	5,268,018	0.11%
Blue Torch Credit ³		0	N/A	11,443,028	0.23%
Bowmark Capital Partners IV		125,836	22.68%	5,928,789	0.12%
Capital Partners Income II		41,203	25.49%	19,007,720	0.39%
Capital Partners Income III ³		319,019	N/A	8,992,236	0.18%
Catterton Partners V		1,288	(5.11%)	62,447	0.00%
Catterton Partners VI		56,625	18.76%	3,775,421	0.08%
Catterton Partners VII		306,780	23.43%	19,320,027	0.39%
Center Lane III		(252,134)	144.78%	8,418,049	0.17%
Center Lane IV ⁴		240,874	N/M	16,129,502	0.33%
Commonfund Capital Venture Partners IX		34,330	30.37%	21,630,408	0.44%
Commonfund Capital Venture Partners X		15,701	22.14%	14,500,765	0.29%
CVC European Equity Partners III		0	21.61%	715,281	0.01%
CVC European Equity Partners IV		0	(51.94%)	9,728	0.00%
CVC European Equity Partners V		6,121	82.55%	4,214,433	0.09%
Dyal Capital II		451,233	(9.29%)	7,388,394	0.15%
Dyal Capital IV ³		195,069	N/A	878,350	0.02%
Endeavour Capital VI		54,497	21.40%	8,652,516	0.18%
Endeavour Capital VII ⁴		274,926	N/M	10,387,718	0.21%
Energy Innovation Capital I ³		352,357	N/A	9,943,340	0.20%
Energy & Minerals Group II		193,122	6.86%	17,792,611	0.36%
Energy & Minerals Group III		321,673	4.52%	16,454,178	0.33%
Enhanced Equity II		2,929	(9.90%)	8,353	0.00%
GBOF IV		86,229	36.82%	4,682,529	0.10%
Grey Mountain III		197,811	61.25%	13,522,194	0.28%
HIG Bayside Opportunities Fund II		147,916	28.29%	3,618,452	0.07%
HIG Middle Market II		200,000	4.14%	6,884,732	0.14%
High Road Capital Partners I		56,691	9.41%	4,622,704	0.09%
High Road Capital Partners II		199,856	56.33%	12,880,666	0.26%
Insight Venture Partners VII		95,845	91.40%	17,544,143	0.36%
JH Whitney VII		(275,417)	45.47%	17,367,247	0.35%
JMI Equity VI		63,973	69.91%	332,820	0.01%
JMI Equity VII		183,220	45.16%	9,859,474	0.20%
Kayne Anderson Energy III ⁶		0	N/M	1	0.00%
Kayne Anderson Energy IV		0	10.93%	313,709	0.01%
Kayne Anderson Energy VI		54,311	1.59%	3,571,232	0.07%
Kelso Investment Assoc VIII		32,065	(8.42%)	6,429,736	0.13%
KPS Special Situations III		33,296	141.96%	3,260,082	0.07%
Littlejohn Opportunities Fund II ⁴		73,209	N/M	10,602,076	0.22%
Mayfair I ⁴		100,545	N/M	14,886,641	0.30%
Mayfair II ³		0	N/A	254,720	0.01%
Mercato Growth III		220,900	22.57%	11,916,163	0.24%
MVM III		37,722	57.23%	4,213,051	0.09%
MVM IV		164,000	3.59%	10,644,705	0.22%
Nautic Partners VI		16,592	19.70%	1,728,515	0.04%

■ Asset Allocation by Category and Investment Manager

Asset Class Manager	Investment Style	Management Fees	1 Year Net Return %	Total Assets	% of Total Fund Assets
Nautic Partners VII		\$(102,184)	63.11%	\$4,123,726	0.08%
Nautic Partners VIII ¹		260,989	N/M	2,994,897	0.06%
New Enterprise Associates XIII		83,703	(21.60%)	8,238,271	0.17%
NGP Natural Resources X		145,386	14.25%	5,076,141	0.10%
Nordic Capital VII		36,764	(12.18%)	988,952	0.02%
Nordic Capital VIII		137,859	0.15%	7,053,425	0.14%
NVM Private Equity III ³		429,278	N/A	2,338,025	0.05%
OHA Strategic Credit Fund II		0	(8.94%)	128,139	0.00%
OSP Value I		299,999	12.18%	20,820,090	0.42%
OSP Value II ⁴		200,114	N/M	7,590,020	0.15%
Palladium Equity IV		76,079	26.73%	11,432,984	0.23%
Periscope Equity I ³		243,810	N/A	1,971,554	0.04%
Questa Capital Partners I ³		946,225	N/A	8,856,932	0.18%
Raine Partners II		337,999	21.10%	16,306,860	0.33%
Roark Capital Partners II		0	27.17%	22,261,326	0.45%
Roark Capital Partners III		62,961	19.88%	12,151,499	0.25%
Roark Capital Partners IV ⁴		232,339	N/M	13,086,551	0.27%
Rosemont Partners III		247,391	1.44%	11,972,267	0.24%
SIF IV		118,130	27.62%	18,887,793	0.38%
SIF VII		92,499	20.87%	9,757,883	0.20%
Siguler Guff ⁴		150,000	N/M	4,151,628	0.08%
SVB Venture Overage		135,100	10.13%	11,393,399	0.23%
TA XI		56,988	55.85%	5,035,107	0.10%
TCV VII		23,354	56.46%	9,333,788	0.19%
TCV VIII		300,000	24.24%	18,675,112	0.38%
Thomas, McNerney & Partners I		0	(4.75%)	1,056,784	0.02%
Thomas, McNerney & Partners II		13,575	(4.29%)	1,730,579	0.04%
Three Hills Capital III ³		0	N/A	3,533,277	0.07%
TPG Growth II		52,817	0.29%	9,130,709	0.19%
Transom II		(132,838)	22.09%	16,843,270	0.34%
Ufenau IV		333,243	4.35%	8,836,919	0.18%
Ufenau V ⁴		400,030	N/M	10,422,621	0.21%
Veritas Capital IV		0	73.28%	5,715,477	0.12%
Veritas Capital V		0	43.72%	32,701,741	0.67%
Warren Equity II ³		274,254	N/A	5,365,993	0.11%
Mesirow Financial FX Overlay ⁵		0	N/M	5,715,941	0.12%
PE Stock Distribution Account		0		149,435	0.00%
Valuation Adjustment ⁷				16,889,702	0.34%
Total Private Capital		\$10,112,630		\$739,043,594	15.02%
Cash account & Short Term BNY/Mellon Bank			2.01%	\$73,841,895	1.50%
Annual Accrual Adjustment		282,866			
TOTAL FEES & ASSETS		\$37,629,914	0.10%	\$4,921,369,494	100.00%

*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.

■ Asset Allocation by Category and Investment Manager

¹ *Manager terminated in 2010*

² *Manager terminated in 2018*

³ *Manager hired in 2018, no one year return.*

⁴ *N/M = Not Meaningful. FPPA does not report returns for illiquid partnerships investments with less than 36 months of history.*

⁵ *N/M = Not Meaningful.*

⁶ *Manager in liquidation.*

⁷ *See Note 2.C. Summary of Significant Accounting Policies, within the Financial Statements*

■ Top 20 Equity Holdings

Company	Fair Value
MICROSOFT CORP	\$22,569,362
APPLE INC	17,040,337
AMAZON.COM INC	13,050,617
JOHNSON & JOHNSON	12,205,162
ALPHABET INC-CL C	10,987,822
CISCO SYSTEMS INC	10,520,307
MASTERCARD INC	9,372,698
AIA GROUP LTD	8,130,506
JPMORGAN CHASE & CO	8,112,710
ADOBE INC	7,809,126
NESTLE SA	7,482,323
WALT DISNEY CO	7,431,419
ROCHE HOLDING AG	7,120,524
NOVARTIS AG	7,018,678
FACEBOOK INC	6,676,676
PFIZER INC	6,603,372
ALPHABET INC-CL A	6,435,909
TJX COS INC	6,293,128
UNITEDHEALTH GROUP INC	6,210,063
EDWARDS LIFESCIENCES CORP	6,186,077

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

■ Top 20 Fixed Income Holdings

Company	Description		Fair Value
U S TREASURY BOND	2.50%	05/15/2046	\$20,219,253
FEDERAL FARM CR BK CONS BD	VAR RT	07/02/2019	11,702,352
FEDERAL HOME LN BK CONS BD	VAR RT	12/18/2020	9,709,948
U S TREASURY NOTE	1.63%	02/15/2026	9,393,663
U S TREASURY NOTE	2.38%	05/15/2027	9,193,373
U S TREASURY BOND	6.25%	05/15/2030	4,043,507
U S TREASURY NOTE	2.88%	11/30/2023	4,018,809
INTEL CORP	VAR RT	05/11/2022	4,011,849
U S TREASURY NOTE	3.13%	11/15/2028	4,005,937
US BANK NA/CINCINNATI OH	VAR RT	04/26/2021	3,885,063
AMERICAN EXPRESS CREDIT CORP	VAR RT	03/03/2022	3,873,402
UNITED PARCEL SERVICE INC	VAR RT	05/16/2022	3,864,753
MANUFACTURERS & TRADERS TRUST	VAR RT	05/18/2022	3,856,203
U S TREASURY NOTE	2.75%	07/31/2023	3,823,327
WALT DISNEY CO	VAR RT	03/04/2022	3,821,863
WELLS FARGO & CO	VAR RT	01/24/2023	3,783,061
IBM CREDIT LLC	VAR RT	01/20/2021	3,765,627
JPMORGAN CHASE & CO	VAR RT	04/25/2023	3,620,720
MORGAN STANLEY	VAR RT	01/20/2022	3,488,520
GOLDMAN SACHS GROUP INC	VAR RT	10/31/2022	3,454,177

The top 20 holdings exclude commingled funds, SWAPS & SWAP collateral. A complete list of holdings is available upon request.

■ Performance Summary as of December 31, 2018

Series Name <i>Benchmark Indices</i>	4Q Return Percentage	1 Year Return Percentage	Annualized 3 Year Return Percentage	Annualized 5 Year Return Percentage
FPPA Total Fund - Gross of Fees	(3.36%)	1.17%	7.65%	6.61%
FPPA Total Fund - Net of Fees	(3.94%)	0.10%	6.68%	5.72%
<i>Custom Total Fund Benchmark¹</i>	(5.47%)	(1.77%)	7.44%	5.57%
<i>Public Fund Median (BNY/Mellon)</i>	(6.48%)	(3.37%)	6.48%	5.11%
Global Public Equity Accounts - Gross of Fees	(13.22%)	(9.07%)	7.51%	5.18%
Global Public Equity Accounts - Net of Fees	(13.32%)	(9.32%)	7.23%	4.94%
<i>MSCI ACWI IMI w/USA Gross</i>	(13.19%)	(9.61%)	7.06%	4.72%
Equity Long/Short - Gross of Fees	(6.04%)	(1.16%)	5.41%	4.87%
Equity Long/Short - Net of Fees	(6.72%)	(2.58%)	3.84%	3.30%
<i>HFRI Equity Hedge</i>	(8.49%)	(7.13%)	3.53%	2.27%
Fixed Income Accounts - Gross of Fees	0.71%	(0.18%)	2.46%	2.36%
Fixed Income Accounts - Net of Fees	0.66%	(0.37%)	2.24%	2.13%
<i>Barclays Capital U.S. Aggregate Index</i>	1.64%	0.01%	2.06%	2.52%
Managed Futures - Gross of Fees	(5.75%)	(5.90%)	(2.98%)	1.54%
Managed Futures - Net of Fees	(6.20%)	(6.75%)	(3.87%)	0.60%
<i>Barclays Hedge BTOP 50 Index</i>	(2.05%)	(4.60%)	(3.30%)	0.12%
Absolute Return - Gross of Fees	0.28%	2.53%	5.46%	4.91%
Absolute Return - Net of Fees	(0.35%)	1.24%	4.01%	3.40%
<i>90 Day T-Bill + 400bps</i>	1.52%	5.86%	4.99%	4.61%
Private Markets - Gross of Fees ²	9.06%	19.31%	14.38%	14.76%
Private Markets - Net of Fees ²	7.27%	16.17%	12.23%	12.87%
<i>Private Markets Benchmark</i>	2.72%	13.01%	10.90%	10.36%
Private Capital Accounts - Gross of Fees	11.89%	24.33%	18.01%	18.34%
Private Capital Accounts - Net of Fees	9.76%	20.53%	15.75%	16.33%
<i>Private Capital Benchmark</i>	3.47%	16.10%	13.09%	12.16%
Real Asset Accounts - Gross of Fees	7.62%	16.95%	10.27%	7.45%
Real Asset Accounts - Net of Fees	5.59%	13.68%	7.66%	5.20%
<i>Real Assets Benchmark</i>	2.03%	9.48%	7.38%	3.41%
Real Estate Accounts - Gross of Fees	2.86%	8.60%	9.24%	11.49%
Real Estate Accounts - Net of Fees	2.41%	7.38%	7.96%	10.28%
<i>Real Estate Benchmark</i>	1.48%	8.54%	8.42%	10.22%

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.

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

² The majority of Illiquid Alternative accounts are reported on a quarter lag.

■ Summary of Brokerage Commissions

Broker Name	Total Commission	Shares Traded	Per Share
MORGAN STANLEY & CO INC, NY	\$18,331	62,163,679	0.000
DEUTSCHE BK SEC INC, NEW YORK	2,135	60,000,000	0.000
GOLDMAN SACHS & CO, NY	89,096	8,232,518	0.011
DEUTSCHE BK SECS INC, NY	6,085	3,810,550	0.002
INSTINET PACIFIC LTD, HONG KONG	2,693	3,735,311	0.001
UBS WARBURG ASIA LTD, HONG KONG	7,541	3,316,709	0.002
UBS WARBURG, LONDON	12,148	2,985,544	0.004
JEFFERIES & CO INC, NEW YORK	19,932	2,696,677	0.007
MACQUARIE SECURITIES LIMITED, HONG KONG	718	2,633,404	0.000
ROYAL BANK OF CANADA EUROPE LTD, LONDON	6,960	2,288,823	0.003
DAIWA SECS LTD, HONG KONG	3,668	2,196,620	0.002
CITIGROUP GLOBAL MARKETS LTD, LONDON	16,476	2,131,312	0.008
BNP PARIBAS SECURITIES SVCS, HONG KONG	5,305	1,901,369	0.003
J P MORGAN SECS LTD, LONDON	6,792	1,848,167	0.004
CREDIT LYONNAIS SECS, HONG KONG	2,018	1,585,182	0.001
CREDIT SUISSE, NEW YORK	6,394	1,517,498	0.004
GOLDMAN SACHS INTL, LONDON	4,308	1,510,439	0.003
CITIGROUP GBL MKTS/SALOMON, NEW YORK	5,609	1,492,712	0.004
SOCIETE GENERALE LONDON BRANCH, LONDON	5,609	1,370,878	0.004
MACQUARIE BANK LTD, HONG KONG	9,736	1,303,349	0.007
SCHWAB CHARLES & CO INC, SAN FRANCISCO	1,623	1,266,700	0.001
MERRILL LYNCH INTL LONDON EQUITIES	2,264	1,188,806	0.002
CITIGROUP GBL MKTS CCTVM SA, BRAZIL	3,089	1,032,980	0.003
SG SEC LTD, LONDON	4,185	1,022,196	0.004
INSTINET EUROPE LIMITED, LONDON	17,279	963,484	0.018
CREDIT LYONNAIS SECS, SINGAPORE	791	925,081	0.001
SCOTIA CAPITAL MKTS, TORONTO	7,046	879,739	0.008
INVESTMENT TECHNOLOGY GROUP LTD,DUBLIN	3,202	859,511	0.004
BARCLAYS CAPITAL, LONDON	3,968	771,182	0.005
SG SECURITIES, HONG KONG	1,097	736,776	0.001
MORGAN STANLEY & CO, LONDON	2,743	726,954	0.004
NUMIS SECURITIES INC., NEW YORK	4,297	679,090	0.006
BERNSTEIN SANFORD C & CO, NEW YORK	4,299	494,987	0.009
ITG CANADA CORP, TORONTO	5,289	474,450	0.011
PEEL HUNT LLP, LONDON	1,774	466,154	0.004
J.P MORGAN SECURITIES INC, NEW YORK	1,199	462,561	0.003
BARCLAYS CAPITAL INC./LE, NEW JERSEY	2,281	437,919	0.005
UBS WARBURG AUSTRALIA EQUITIES, SYDNEY	974	433,152	0.002
RBC DOMINION SECS INC, TORONTO	6,278	403,667	0.016
NATIONAL FINL SVCS CORP, NEW YORK	2,265	402,908	0.006
UBS SECURITIES LLC, STAMFORD	6,750	385,089	0.018
BANCO BTG PACTUAL SA, RIO DE JANEIRO	3,129	327,588	0.010

■ Summary of Brokerage Commissions

Broker Name	Total Commission	Shares Traded	Per Share
CITIGROUP GBL MKTS INC, NEW YORK	\$5,168	320,474	0.016
MERRILL LYNCH PIERCE FENNER SMITH INC NY	48,462	316,648	0.153
J.P. MORGAN SECURITIES, HONG KONG	129	313,179	0.000
SVENSKA HANDELSBANKEN, STOCKHOLM	2,984	284,282	0.010
UNION BANK SWITZERLAND SECS, LONDON	3,144	273,189	0.012
GOLDMAN SACHS INTL, TORONTO	6,214	265,571	0.023
BANCO SANTANDER, NEW YORK	3,062	262,418	0.012
PAREL, PARIS	7,009	233,807	0.030
All Other Brokers	100,164	5,105,038	0.020
Total	\$493,712	191,436,321	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 FPPA 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.

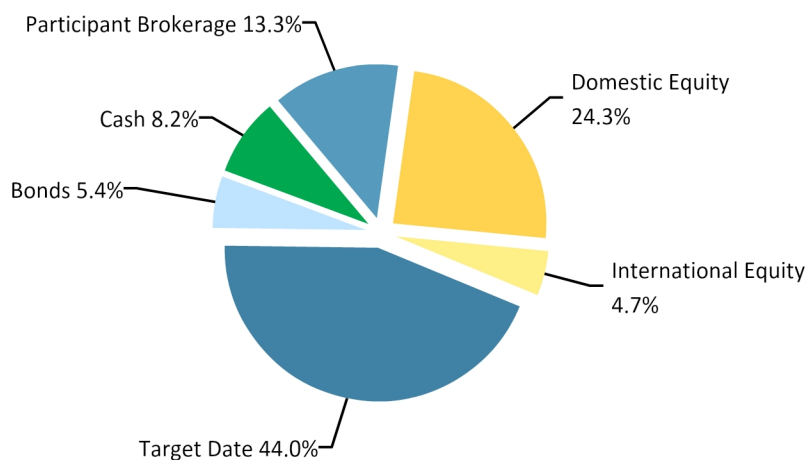
Members make their own decisions when directing the investment of their contributions and accumulated account balances among the investment options offered. Members assume the risk of investment results derived from both the options offered and the strategies they select. It is the member's responsibility 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.

■ Asset Allocation

2018 Asset Allocation



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Actuarial Section





P: 720.274.7270 | F: 303.694.0633 | www.grsconsulting.com

May 7, 2019

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 - Statewide Defined Benefit Plan	Current cost plus level percent of payroll amortization of unfunded liability over 30 years
Defined Benefit System - Statewide Hybrid Plan Defined Benefit Component	Current cost plus level percent of payroll amortization of unfunded liability over 30 years
Statewide Death & Disability Plan	Current cost funded as level percent of payroll of contributing members
Defined Benefit System – Colorado Springs New Hire Pension Plans	Current cost plus level dollar amortization of unfunded liability over 21 years
Affiliated Local Old Hire Plans	Current cost plus level dollar amortization of unfunded liability over 16 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.

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

7900 East Union Avenue | Suite 650 | Denver, Colorado 80237-2746

Board of Directors, Fire and Police Pension Association
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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. Based on the January 1, 2018 actuarial valuation, the Board elected to increase the contribution rate to 2.8% for the two-year period beginning January 1, 2019.

The Defined Benefit System and Statewide Death & Disability Plans, and affiliated local old hire plans were last valued as of January 1, 2018. The affiliated volunteer plans were last valued as of January 1, 2017.

The total pension liability for GASB 67 purposes was rolled-forward from the valuation date to the plan's fiscal year ending December 31, 2018 using generally accepted actuarial principles. During 2018, 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.

The total OPEB liability for GASB 74 purposes was rolled-forward from the valuation date to the Statewide Death and Disability Plan's fiscal year ending December 31, 2018 using generally accepted actuarial principles.

A single discount rate was used to measure the total pension liability and the total OPEB liability for the fiscal years ending December 31, 2017 and December 31, 2018. This single discount rate was based on the expected rate of return on pension plan investments of 7.50% and municipal bond rates of 3.31% and 3.71% (based on the Fidelity "20-Year Municipal GO AA Index" as of the end of December) for fiscal years ending 2017 and 2018, respectively.

The resulting single discount rates were 7.50% for the Statewide Defined Benefit Plan, Statewide Hybrid Plan – Defined Benefit Component, and Colorado Springs New Hire Pension Plans (Fire and Police Component). 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 resulting single discount rates for the Statewide Death and Disability Plan were 7.50% for the measurement period ending December 31, 2017 and 6.64% for the measurement period ending December 31, 2018. Based on the plan assumptions, the resulting single discount rate and the projection methods prescribed by GASB 74, the OPEB plan's fiduciary net position and future contributions were sufficient to finance the benefit payments through the year 2057.



Board of Directors, Fire and Police Pension Association
May 7, 2019
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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 Nos. 67, 68, 74 and 75 and meet the parameters set for the disclosures presented in the financial section by GASB Statement Nos. 67 and 74.

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, 2018 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
- Required Supplementary Information – Schedule of Employers' Contributions

The following were provided for the Statewide Death and Disability Plan:

- Net OPEB Liability
- Required Discount Rate Sensitivity Information of the Net OPEB 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 Net OPEB Liability

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.



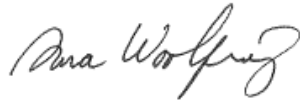
Board of Directors, Fire and Police Pension Association
May 7, 2019
Page 4

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 2018 and 2017 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 (2018, 2020, etc.). All of the Affiliated Local Volunteer Firefighter pension plans have valuations performed as of January 1 of the odd numbered years (2017, 2019, 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 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, 2018, 235 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, 2018, 44 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, 2018, 268 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 221 Affiliated Local Plans as of December 31, 2018.

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

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 FPPA 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. 74, and No. 75. 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 - Defined Benefit 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.

At its September 2018 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, 2019. The actuarial assumptions

General Information and Summary of 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 January 1, 2019.

The main actuarial factor changes effective January 1, 2019 were:

- Reduce the investment return assumption from 7.5% to 7.0%. The investment return assumption is one of the principal assumptions in any actuarial valuation of a retirement plan. It is used to discount future expected benefit payments to the valuation date, in order to determine the liabilities of the plan. Even a small change to this assumption can produce significant changes to the liabilities and contribution rates. The Fire & Police Pension Associations' Board of Directors reduced the assumption to 7.0% as this was the median expected portfolio return given the fund's target allocation and given a set of capital market assumptions.
- Increase the expected incidence of 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 - Defined Benefit Component Plan, Colorado Springs New Hire Plan) to the Statewide Death & Disability Plan. Increasing the expected incidence of 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 and in January 1, 2019 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.

Economic Assumptions

Effective January 1, 2016 the investment 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 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, 2019 the investment rate for purposes of the actuarial valuation is 7.0% per annum, compounded annually and net of all investment expenses. Future inflation is assumed to be 2.5% annually and is included in the active members' salary projections. Thus the real investment return, net of inflation, is 4.5% per annum.

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. Effective January 1, 2019, this assumption remains the same. 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 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% mortality probability for females is included to reflect substantial

General Information and Summary of Actuarial Assumptions

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.

Effective January 1, 2019, the post-retirement mortality tables for non-disabled retirees is a blend of the Annuitant and Employee RP-2014 annuitant mortality tables for males and females project to 2018 using the MP-2017 projections scales, and then projected prospectively using the ultimate rates of the scale for all years. 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 2006 central rates from the RP-2014 disabled mortality tables for males and females projected to 2018 using the MP-2017 projection scales, and then projected prospectively using the ultimate rates of the scale for all years, with minimum probability of 3% for males and 2% for females. The pre-retirement off-duty mortality tables are adjusted to 50% of the RP-2014 mortality tables for active employees. The on-duty mortality rate is increased by 0.00015.

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.

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

Sample Ages	Disability			Years of Service	Separation		Attained Age in 2018	Death	
	Occupational	Total	Volunteer		Members	Volunteer		Male	Female
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	0.37
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	0.88	0.60
50	4.89	0.94	6.50	23	5.2	0.00	50	1.39	0.87
55	6.88	1.17	8.10				55	2.16	1.21

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) All other plan members - Age 52 or current age, if greater.

General Information and Summary of Actuarial Assumptions

■ 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

Sample Ages	COLA Increases	Full Rank	Annual Rate per 1,000 Members							
			Limited Rank		Healthy Retiree or Survivor		Occupationally Disabled Retirees		Totally Disabled Retirees	
			Pre 1980	Post 1980	Male*	Female*	Male*	Female*	Male*	Female*
50	N/A	3.5%	3.5%	3.0%	2.16	1.22	2.93	1.58	30.00	20.00
55	N/A	3.5%	3.5%	3.0%	3.65	1.95	5.51	3.28	30.00	20.00
60	N/A	3.5%	3.5%	3.0%	7.13	4.53	9.97	6.73	30.00	20.00
65	N/A	3.5%	3.5%	3.0%	12.02	8.31	15.47	10.97	30.19	20.00
70	N/A	3.5%	3.5%	3.0%	18.53	13.31	24.48	17.92	37.98	26.87

*Age attained in 2018.

Defined Benefit System | Statewide Defined Benefit Plan

■ Schedule of Active Member Valuation Data

Valuation Date	Active Member Count	Average Age	Average Service	Covered Payroll	Annual Average Salary	% Change in Average Salary
1/1/2018	7,602	40.5	10.3	\$577,624,013	\$75,983	2.03%
1/1/2017	6,900	40.7	10.5	513,837,288	74,469	3.86%
1/1/2016	6,602	40.7	10.5	473,359,565	71,699	1.46%
1/1/2015	6,245	40.8	10.7	441,313,862	70,667	1.19%
1/1/2014	6,110	40.7	10.6	426,690,241	69,835	(0.18%)
1/1/2013	5,807	41.0	10.8	406,258,662	69,960	3.94%
1/1/2012	5,717	40.8	10.5	384,803,645	67,309	1.19%
1/1/2011	5,314	40.7	10.5	353,484,986	66,520	1.83%
1/1/2010	5,331	40.1	9.9	384,253,545	65,326	5.12%
1/1/2009	5,197	39.6	9.5	322,971,268	62,146	2.00%

■ Gain (Loss) on Actuarial Value of Assets

	Valuation as of January 1, 2018	Valuation as of January 1, 2017
Actuarial assets, prior valuation	\$2,050,113,711	\$1,890,604,068
Total Contributions since prior valuation	200,793,039	100,378,690
Benefits, refunds, and administrative expense since prior valuation	(71,288,484)	(65,186,443)
Assumed net investment income at actuarial rate%*		
Beginning assets	153,758,528	141,795,305
Contributions	7,529,739	3,764,201
Benefits, refunds paid, and administrative expense	(2,673,318)	(2,444,492)
Total	\$158,614,949	\$143,115,014
Expected actuarial assets	\$2,338,233,215	\$2,068,911,329
Actual actuarial assets, this valuation	\$2,353,241,861	\$2,050,113,711
Asset gain/(loss)	\$15,008,646	\$(18,797,618)
	Gain	Loss

*7.5% as of 1/1/2012

Defined Benefit System | Statewide Defined Benefit Plan

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

Year Ended	Added to Payroll**		Removed from Payroll		Payroll		% Increase in Annual Benefit	Average Annual Benefit
	Number	Annual Benefit	Number	Annual Benefit	Number	Annual Benefit		
12/31/2017	140	\$6,701,667	6	\$277,985	1,435	\$61,232,094	11.72%	\$42,670
12/31/2016	131	6,612,256	5	138,121	1,301	54,808,412	15.11%	42,128
12/31/2015	131	6,463,995	5	120,311	1,175	48,334,277	17.44%	41,136
12/31/2014	146	6,358,310	5	121,694	1,049	41,990,593	26.31%	40,029
12/31/2013	155	7,528,613	2	81,763	908	35,753,977	22.27%	39,377
12/31/2012	115	5,199,290	1	43,620	755	28,307,127	34.05%	37,493
12/31/2011	130	5,959,060	2	68,483	641	23,151,457	27.56%	36,118
12/31/2010	94	3,862,662	5	131,169	513	17,270,880	27.71%	33,666
12/31/2009	75	2,981,664	4	43,765	424	13,539,387	27.70%	31,933
12/31/2008	65	2,375,478	3	75,874	353	10,601,488	35.44%	30,033

*Includes beneficiaries of deceased members with a deferred benefit

**Includes Benefit Adjustments

■ Schedule of Funding Progress

Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded (Surplus) Actuarial Accrued Liability	Funded Ratio	Annual Payroll	Unfunded (Surplus) Actuarial Accrued Liability as a Percentage of Payroll
1/1/2018	\$2,353,241,861	\$2,269,410,684	\$(83,831,177)	103.7%	\$577,624,013	(14.5)%
1/1/2017	2,050,113,711	2,021,526,883	(28,586,828)	101.4%	513,837,288	(5.6)%
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)%

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 assets, unless the market value of assets is used in the measurement.

Defined Benefit System | Statewide Defined Benefit Plan

■ Age and Years of Service Distribution

Member Age	Member Count	Member Years of Service	Member Count
Under 25	201	0 to 4	2,777
25 to 29	880	5 to 9	1,167
30 to 34	1,290	10 to 14	1,452
35 to 39	1,293	15 to 19	1,144
40 to 44	1,185	20 and up	1,062
45 to 49	1,303		
50 to 54	883		
55 to 59	399		
60 to 64	137		
65 and up	31		
Total Members	7,602	Total Members	7,602
Average Age	40.5	Average Service	10.3

Defined Benefit System | Statewide Defined Benefit Plan

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 2018, the total member and employer combined contribution rate was 18.0% 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, 2014 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

Valuation Date	Actuarial Value of Assets (000's)	Aggregate Accrued Liabilities For			Portion of Accrued Liabilities Covered by Reported Assets		
		(1)	(2)	(3)			
		Active Member Contributions (000's)	Retirees, Beneficiaries and Vested Terminations (000's)	Members (Employer Financed Portion) (000's)	(1)	(2)	(3)
1/1/2018	\$2,353,242	\$559,153	\$778,718	\$931,540	100%	100%	100%
1/1/2017	2,050,114	441,466	691,929	888,132	100%	100%	100%
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%

■ 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 5, 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.

Defined Benefit System | Statewide Defined Benefit Plan

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 unless the employer elects into and is determined to be eligible to participate in the Statewide Money Purchase 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 "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 5, 2003, the Plan may include clerical and other personnel employed by a fire protection district, fire authority, or a county improvement district.

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 includes all personnel employed by a sheriff expected to work 1,600 hours or more in a calendar year who are directly involved with the provision of law enforcement or fire protection, as certified by the county.

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 their service requirement for purposes of Normal retirement while exhausting accumulated vacation leave.
- 3) 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.
- 4) Any amounts voluntarily contributed to an Internal Revenue Code Section 125 "Cafeteria Plan" shall be included in the Member's base salary.
- 5) Base salary shall not include overtime pay (except as noted in section 1) above), step-up pay or other pay for temporarily acting in a higher rank (a Member is deemed temporarily acting in a higher rank if the appointment to the rank is anticipated to last less than six months.), uniform allowances, accumulated sick leave pay, accumulated vacation leave pay (except as noted in section 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).

Contribution Rates

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.

Defined Benefit System | Statewide Defined Benefit Plan

Contributions from members and employers of plans reentering 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 2022 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%

Defined Benefit System | Statewide Defined Benefit Plan

Highest Average Salaries (HAS)

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

Normal Retirement Date

A member's Normal Retirement shall be the date on which the member has completed at least 25 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. Other 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.

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. Other 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.

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. 5 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.

Defined Benefit System | Statewide Defined Benefit Plan

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).

Forms of Payment

The Plan provides six choices for receipt of the retirement benefit:

- | | |
|---------------|--|
| Normal Option | The retiree receives a full, monthly pension benefit for their life. No monthly benefits are paid to a beneficiary following the retiree's death. However, if at the time of the member's death, they have not recouped in pension payments the amount of the member contributions (including all funds paid in to purchase service credit), the remaining funds plus 5% as interest would be paid to the member's beneficiary or estate as a lump sum. |
| Option 1 | (Joint and 100% Survivor) - Under Option 1, an actuarially equivalent normal, deferred, early or vested retirement pension will be paid from the effective date of the retiree's retirement or later in the case of a deferred retirement. The actuarially equivalent monthly pension will continue for the life of the retiree. Upon the death of the retiree, the same monthly pension will be paid to the retiree's designated beneficiary for life. |
| Option 2 | (Joint and 50% Survivor) - Under Option 2, an actuarially equivalent normal, deferred, early or vested retirement pension will be paid from the effective date of the retiree's retirement or later in the case of a deferred retirement. The actuarially equivalent monthly pension will continue for the life of the retiree. Upon the death of the retiree, 50 percent of the same monthly pension will be paid to the retiree's designated beneficiary for life. |
| Option 3 | (Joint and 50% Last Survivor) - Under Option 3, an actuarially equivalent normal, deferred, early or vested retirement monthly pension will be shared by the retiree and their named beneficiary. Upon the death of either the retiree or the designated beneficiary, 50 percent of the same monthly pension will be paid to the survivor for life. |
| Option 4 | (Joint and 100% Survivor with "Pop Up") - Under Option 4, an actuarially equivalent normal, deferred, early or vested retirement pension will be paid from the effective date of the retiree's retirement or later in the case of a deferred retirement. The actuarially equivalent, monthly pension will continue for the life of the retiree. Upon the death of the retiree, the same monthly pension will be paid to the retiree's designated beneficiary for life. However, if the designated beneficiary dies before the retiree, the monthly pension benefit "pops-up" or reverts to the Normal Option effective with the first day of the month following the date of the death of the beneficiary. |
| Option 5 | (Joint and 50% Survivor with "Pop Up") - Under Option 5, an actuarially equivalent normal, deferred, early or vested retirement pension will be paid from the effective date of the retiree's retirement or later in the case of a deferred retirement. The actuarially equivalent monthly pension will continue for the life of the retiree. Upon the death of the retiree, 50 percent of the same monthly pension benefit will be paid to the retiree's beneficiary for life. However, if the beneficiary dies before the retiree, the monthly pension benefit "pops-up" or reverts to the Normal Option effective with the first day of the month following the date of the death of the beneficiary. |

Defined Benefit System | Statewide Defined Benefit Plan

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 Fire and Police Pension Association Board of Directors.

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 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

There were no changes in actuarial assumptions since the January 1, 2017 valuation.

Defined Benefit System | Statewide Hybrid Plan - Defined Benefit Component

■ Schedule of Active Member Valuation Data

Valuation Date	Active Member Count	Average Age	Average Service	Covered Payroll	Average Annual Salary	% Change in Average Salary
1/1/2018	173	46.5	13.6	\$15,058,049	\$87,041	4.39%
1/1/2017	150	46.3	13.4	12,506,946	83,380	3.98%
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%

■ Gain (Loss) on Actuarial Value of Assets

	Valuation as of January 1, 2018	Valuation as of January 1, 2017
Actuarial assets, prior valuation	\$54,702,116	\$47,344,971
Total Contributions since prior valuation	10,261,780	5,417,020
Benefits, refunds, and administrative expense since prior valuation	(1,599,448)	(1,296,786)
Assumed net investment income at actuarial rate%*		
Beginning assets	4,102,659	3,550,873
Contributions	384,817	203,138
Benefits, refunds paid, and administrative expense	(59,980)	(48,630)
Total	\$4,427,496	\$3,705,381
Expected actuarial assets	\$67,791,944	\$55,170,586
Actual actuarial assets, this valuation	\$68,207,993	\$54,702,116
Asset gain/(loss) since prior valuation	\$416,049	\$(468,470)
	Gain	Loss

*7.5% as of 1/1/2012

Defined Benefit System | Statewide Hybrid Plan - Defined Benefit Component

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

Year Ended	Added to Payroll*		Removed from Payroll		Payroll		% Increase in Annual Benefit	Average Annual Benefit
	Number	Annual Benefit	Number	Annual Benefit	Number	Annual Benefit		
12/31/2017	3	\$180,005	1	\$14,566	42	\$1,584,650	11.66%	\$37,730
12/31/2016	6	329,916	0	0	40	1,419,211	30.29%	35,480
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

*Includes Benefit Adjustments

■ Schedule of Funding Progress

Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded (Surplus) Actuarial Accrued Liability	Funded Ratio	Annual Payroll	Unfunded (Surplus) Actuarial Accrued Liability as a Percentage of Payroll
1/1/2018	\$68,207,993	\$50,319,464	\$(17,888,529)	135.5%	\$15,021,985	(119.1)%
1/1/2017	54,702,116	42,201,793	(12,500,323)	129.6%	12,631,900	(99.0)%
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)%

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 assets, unless the market value of assets is used in the measurement.

Defined Benefit System | Statewide Hybrid Plan - Defined Benefit Component

■ Age and Years of Service Distribution

Member Age	Member Count	Member Years of Service	Member Count
Under 25	0	0 to 4	28
25 to 29	8	5 to 9	36
30 to 34	8	10 to 14	43
35 to 39	15	15 to 19	34
40 to 44	41	20 and up	32
45 to 49	39		
50 to 54	30		
55 to 59	21		
60 to 64	10		
65 and up	1		
Total Members	173	Total Members	173
Average Age	46.5	Average Service	13.6

Defined Benefit System | Statewide Hybrid Plan - Defined Benefit Component

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, 2017 through June 30, 2018 was 14.8%. The contribution rate from July 1, 2018 through June 30, 2019 is 13.4%.

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

Valuation Date	Actuarial Value of Assets	Aggregate Accrued Liabilities For			Portion of Accrued Liabilities by Reported Assets		
		(1)	(2)	(3)	(1)	(2)	(3)
		Active Member Contributions	Retirees, Beneficiaries and Vested Terminations	Members (Employer Financed Portion)			
1/1/2018	\$68,207,993	\$19,210,449	\$20,881,460	\$10,227,555	100%	100%	100%
1/1/2017	54,702,116	12,984,652	18,669,580	10,547,561	100%	100%	100%
1/1/2016	47,344,971	12,829,719	14,350,900	8,596,303	100%	100%	100%
1/1/2015	39,772,760	10,736,366	10,903,060	7,538,104	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%

■ 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, other fire district personnel whose services are auxiliary to fire protection, or Chiefs who have opted out of the Statewide Defined Benefit Plan. The Plan is comprised of two components: Defined Benefit and Money Purchase. With the latter component, members have the option of choosing among various investment options offered by an outside investment manager.

Defined Benefit System | Statewide Hybrid Plan - Defined Benefit Component

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 or sheriff departments, as certified by the county.

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) 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.
- 4) Any amounts voluntarily contributed to an Internal Revenue Code Section 125 "Cafeteria Plan" shall be included in the Member's base salary.
- 5) 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 (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), 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).

Defined Benefit System | Statewide Hybrid Plan - Defined Benefit Component

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 for a total of 16 percent. 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 was as follows:

Effective Date	Defined Benefit Portion of the Total Contribution
7/1/2018 - 6/30/2019	13.40%
7/1/2017 - 6/30/2018	14.80%
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%

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 and to be 100 percent vested after 5 years of service or the attainment of age 55. 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. Additional voluntary contributions from the employer are made on a pre-tax basis.

Highest Average Salaries (HAS)

HAS is 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 25 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. Other forms of payment are available.

Defined Benefit System | Statewide Hybrid Plan - Defined Benefit Component

Early Retirement Benefit

A member shall be eligible for an Early Retirement Benefit within the Defined Benefit Component after completion of 30 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. Other 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. Other 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. Other 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.

Forms of Payment

The Plan provides six choices for receipt of the retirement benefit:

- | | |
|---------------|--|
| Normal Option | The retiree receives a full, monthly pension benefit for their life. No monthly benefits are paid to a beneficiary following the retiree's death. However, if at the time of the member's death, they have not recouped in pension payments the amount of the member contributions (including all funds paid in to purchase service credit), the remaining funds plus 5 percent as interest would be paid to the member's beneficiary or estate as a lump sum. |
| Option 1 | (Joint and 100% Survivor) - Under Option 1, an actuarially equivalent normal, deferred, early or vested retirement pension will be paid from the effective date of the retiree's retirement or later in the case of a deferred retirement. The actuarially equivalent monthly pension will continue for the life of the retiree. Upon the death of the retiree, the same monthly pension will be paid to the retiree's designated beneficiary for life. |

Defined Benefit System | Statewide Hybrid Plan - Defined Benefit Component

- Option 2 (Joint and 50% Survivor) - Under Option 2, an actuarially equivalent normal, deferred, early or vested retirement pension will be paid from the effective date of the retiree's retirement or later in the case of a deferred retirement. The actuarially equivalent monthly pension will continue for the life of the retiree. Upon the death of the retiree, 50 percent of the same monthly pension will be paid to the retiree's designated beneficiary for life.
- Option 3 (Joint and 50% Last Survivor) - Under Option 3, an actuarially equivalent normal, deferred, early or vested retirement monthly pension will be shared by the retiree and their named beneficiary. Upon the death of either the retiree or the designated beneficiary, 50 percent of the same monthly pension will be paid to the survivor for life.
- Option 4 (Joint and 100% Survivor with "Pop Up") - Under Option 4, an actuarially equivalent normal, deferred, early or vested retirement pension will be paid from the effective date of the retiree's retirement or later in the case of a deferred retirement. The actuarially equivalent, monthly pension will continue for the life of the retiree. Upon the death of the retiree, the same monthly pension will be paid to the retiree's designated beneficiary for life. However, if the designated beneficiary dies before the retiree, the monthly pension benefit "pops-up" or reverts to the Normal Option effective with the first day of the month following the date of the death of the beneficiary.
- Option 5 (Joint and 50% Survivor with "Pop Up") - Under Option 5, an actuarially equivalent normal, deferred, early or vested retirement pension will be paid from the effective date of the retiree's retirement or later in the case of a deferred retirement. The actuarially equivalent monthly pension will continue for the life of the retiree. Upon the death of the retiree, 50 percent of the same monthly pension benefit will be paid to the retiree's beneficiary for life. However, if the beneficiary dies before the retiree, the monthly pension benefit "pops-up" or reverts to the Normal Option effective with the first day of the month following the date of the death of the beneficiary.

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 Fire & Police Pension Association Board of Directors.

Withdrawals from the Money Purchase Component of the Plan are allowed under the following conditions: the member separates from service with the fire or police department; the member becomes disabled; the member attains their required minimum distribution date; or payment is made to the member's beneficiary upon death.

The member may choose one, or a combination, of the following distribution methods for their Money Purchase Component of the Plan: lump sum, monthly periodic payment (monthly benefits payable over a certain time frame or a certain dollar amount per month until the account is exhausted), conversion of balance to a monthly lifetime benefit, or the purchase of an annuity.

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.

Defined Benefit System | Statewide Hybrid Plan - Defined Benefit Component

Changes in Plan Provisions

The plan provisions have not changed since the prior valuation.

Changes in Actuarial Assumptions

There were no changes in actuarial assumptions since the January 1, 2017 valuation.

Defined Benefit System | Colorado Springs New Hire Pension Plan

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	Active Member Count	Average Age	Average Service	Covered Payroll	Average Annual Salary	% Change in Average Salary
Police Component	1/1/2018	283	46.6	18.4	\$23,039,390	\$81,411	1.81%
	1/1/2017	318	46.2	18.0	25,429,284	79,966	1.50%
	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%
Fire Component	1/1/2018	103	47.8	18.9	\$9,310,153	\$90,390	3.36%
	1/1/2017	110	47.3	18.3	9,619,561	87,451	1.80%
	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%)

Defined Benefit System | Colorado Springs New Hire Pension Plan

■ Gain (Loss) on Actuarial Value of Assets

	Police Component		Fire Component	
	Valuation as of January 1, 2018	Valuation as of January 1, 2017	Valuation as of January 1, 2018	Valuation as of January 1, 2017
Actuarial assets, prior valuation	\$286,951,659	\$271,515,321	\$131,529,543	\$126,813,938
Total Contributions since prior valuation	10,752,643	10,140,632	5,264,542	4,569,688
Benefits, refunds, and administrative expense paid since prior valuation	(12,999,969)	(12,109,879)	(8,201,802)	(7,766,131)
Assumed net investment income at actuarial rate%*				
Beginning assets	21,521,374	20,363,649	9,864,716	9,511,045
Contributions	403,224	380,274	197,420	171,363
Benefits, refunds paid, and administrative expense	(487,499)	(454,120)	(307,568)	(291,230)
Total	\$21,437,099	\$20,289,803	\$9,754,568	\$9,391,178
Expected actuarial assets	\$306,141,432	\$289,835,877	\$138,346,851	\$133,008,673
Actual actuarial assets, this valuation	\$308,034,365	\$286,951,659	\$139,084,637	\$131,529,543
Asset gain/(loss) since prior valuation	\$1,892,933	\$(2,884,218)	\$737,786	\$(1,479,130)
	Gain	Loss	Gain	Loss

*7.5% as of 1/1/2012

Defined Benefit System | Colorado Springs New Hire Pension Plan

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

	Year Ended	Added to Payroll*		Removed from Payroll		Payroll		% Increase in Annual Benefit	Average Annual Benefit
		Number	Annual Benefit	Number	Annual Benefit	Number	Annual Benefit		
Police	12/31/2017	34	\$1,715,802	2	\$103,102	306	\$13,430,855	13.65%	\$43,892
Component	12/31/2016	27	1,251,164	3	86,395	274	11,818,155	10.93%	43,132
	12/31/2015	26	1,266,408	1	32,035	250	10,653,386	13.11%	42,614
	12/31/2014	24	1,230,728	1	22,383	225	9,419,013	14.72%	41,862
	12/31/2013	9	460,165	2	75,382	202	8,210,668	4.92%	40,647
	12/31/2012	9	428,295	2	73,884	195	7,825,885	4.74%	40,133
	12/31/2011	25	1,044,739	3	97,040	188	7,471,474	14.53%	39,742
	12/31/2010	21	1,007,007	0	0	166	6,523,775	18.25%	39,300
	12/31/2009	16	791,367	1	14,525	145	5,516,768	16.39%	38,047
	12/31/2008	17	847,350	0	0	130	4,739,926	21.77%	36,461
Fire	12/31/2017	7	\$390,886	1	\$29,354	167	\$8,137,716	4.65%	\$48,729
Component	12/31/2016	23	1,149,453	1	30,677	161	7,776,184	16.80%	48,299
	12/31/2015	19	1,149,542	1	37,545	139	6,657,408	20.05%	47,895
	12/31/2014	6	257,233	0	0	121	5,545,411	4.86%	45,830
	12/31/2013	7	275,015	2	71,310	115	5,288,178	4.01%	45,984
	12/31/2012	2	96,704	0	0	110	5,084,473	1.94%	46,222
	12/31/2011	14	711,103	1	18,613	108	4,987,769	16.12%	46,183
	12/31/2010	16	901,143	0	0	95	4,295,279	26.55%	45,213
	12/31/2009	14	725,800	0	0	79	3,394,136	27.20%	42,964
	12/31/2008	11	536,669	0	0	65	2,668,336	25.18%	41,051

*Includes Cost-of-Living Adjustments granted since the prior valuation.

Defined Benefit System | Colorado Springs New Hire Pension Plan

■ Schedule of Funding Progress

	Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded (Surplus) Actuarial Accrued Liability	Funded Ratio	Annual Payroll	Unfunded (Surplus) Actuarial Accrued Liability as a Percentage of Payroll
Police	1/1/2018	\$308,034,365	\$342,817,503	\$34,783,138	89.9%	\$23,039,390	151.0%
Component	1/1/2017	286,951,659	331,007,540	44,055,881	86.7%	25,429,284	173.2%
	1/1/2016	271,515,321	319,975,168	48,459,847	84.9%	27,575,061	175.7%
	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%
Fire	1/1/2018	\$139,084,637	\$168,492,702	\$29,408,065	82.5%	\$9,310,153	315.9%
Component	1/1/2017	131,529,543	163,542,442	32,012,899	80.4%	9,619,561	332.8%
	1/1/2016	126,813,938	157,971,179	31,157,241	80.3%	11,167,162	279.0%
	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%

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 assets, unless the market value of assets is used in the measurement.

Defined Benefit System | Colorado Springs New Hire Pension Plan

■ Age and Years of Service Distribution *

	Valuation Date	Average Age	Average Service
Police Component	1/1/2018	46.6	18.4
	1/1/2017	46.2	18.0
	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
Fire Component	1/1/2018	47.8	18.9
	1/1/2017	47.3	18.3
	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

*A breakdown by age/service was not available in the actuarial valuations.

Defined Benefit System | Colorado Springs New Hire Pension Plan

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 20 years from the January 1, 2018 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, 2018, the fire plan annual required contribution is \$4,981,787. Of this amount the members of the plan contribute 10% of basic salary and the employer remitted the remainder. Effective January 1, 2019, the fire plan annual required contribution is \$4,519,669. For the police plan, the annual required contribution for 2018 was \$9,479,498. Of this amount the members of the plan contributed 8% of basic salary and the employer remitted the remainder. Effective January 1, 2019, the annual required contribution is \$8,037,168.

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

	Valuation Date	Actuarial Value of Assets (000's)	Aggregate Accrued Liabilities For			Portion of Accrued Liabilities Covered by Reported Assets		
			(1)	(2)	(3)	(1)	(2)	(3)
			Active Member Contributions (000's)	Retirees, Beneficiaries and Vested Terminations (000's)	Members (Employer Financed Portion) (000's)			
Police	1/1/2018	\$308,034	\$27,549	\$203,465	\$111,803	100%	100%	68.9%
Component	1/1/2017	286,952	29,768	179,910	121,329	100%	100%	63.7%
	1/1/2016	271,515	30,658	161,841	127,476	100%	100%	62.0%
	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%
Fire	1/1/2018	\$139,085	\$12,055	\$116,601	\$39,837	100%	100%	26.2%
Component	1/1/2017	131,530	11,906	112,324	39,312	100%	100%	18.6%
	1/1/2016	126,814	13,776	97,364	46,831	100%	100%	33.5%
	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%

Defined Benefit System | Colorado Springs New Hire Pension Plan

■ 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 (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, 2018, the Police Component actuarially determined contribution was \$9,479,498. Of this amount the members of the Plan contributed 8 percent of basic salary and the employer remitted the remainder. Effective January 1, 2019, the actuarially determined contribution is \$8,037,168.

Final Average Salary

Final Average Salary is the average of monthly basic salary compensation awarded to the member during the 18 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 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,

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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 10 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 1 immediately prior to the earlier of attainment of age 60 or 10 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).

Defined Benefit System | Colorado Springs New Hire Pension Plan

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, 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 2018 and 2019.

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 Rate

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, 2018, the Fire Component actuarially determined contribution is \$4,981,787. Of this amount the members of the Plan contribute 10 percent of basic salary and the employer remitted the remainder. Effective January 1, 2019, the actuarially determined contribution is \$4,519,669.

Final Average Salary

Final Average Salary is the average of monthly basic salary compensation awarded to the member during the 18 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 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.

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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 10 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 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 1 immediately prior to the earlier of attainment of age 65 or 10 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 or the “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 and age 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, deferred

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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 2018 and 2019.

Changes in Plan Provisions

The plan provisions have not changed since the prior valuation.

Changes in Actuarial Assumptions

There were no changes in actuarial assumptions since the January 1, 2017 valuation.

Statewide Death & Disability Plan

■ Schedule of Active Member Valuation Data

Valuation Date	Active Member Count	Average Age	Average Service	Covered Payroll (000's)	Average Annual Salary	% Change in Average Salary
1/1/2018	12,214	41.4	11.0	\$947,520	\$77,577	1.30%
1/1/2017	11,975	41.5	11.1	917,100	76,585	3.65%
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%

■ Gain (Loss) on Actuarial Value of Assets

	Valuation as of January 1, 2018	Valuation as of January 1, 2017
Actuarial assets, prior valuation	\$374,943,903	\$361,070,410
Total Contributions since prior valuation	20,535,422	18,216,116
Benefits and administrative expense since prior valuation	(30,038,903)	(26,949,344)
Assumed net investment income at actuarial rate%*		
Beginning assets	28,120,793	27,080,281
Contributions	770,078	683,104
Benefits paid and administrative expense	(1,126,459)	(1,010,600)
Total	\$27,764,412	\$26,752,785
Expected actuarial assets	\$393,204,834	\$379,089,967
Actual actuarial assets, this valuation	\$395,302,474	\$374,943,903
Asset gain/(loss) since prior valuation	\$2,097,640	\$(4,146,064)
	Gain	Loss

*7.5% as of 1/1/2012

Statewide Death & Disability Plan

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

Year Ended	Added to Payroll*		Removed from Payroll		Payroll		% Increase in Annual Benefit	Average Annual Benefit
	Number	Annual Benefit	Number	Annual Benefit	Number	Annual Benefit		
12/31/2017	92	\$2,807,643	18	\$328,332	1,185	\$29,059,451	9.33%	\$24,523
12/31/2016	68	2,098,542	20	413,487	1,111	26,580,140	6.77%	23,925
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

*Includes benefit adjustments

Statewide Death & Disability Plan

■ Schedule of Funding Progress

Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded (Surplus) Actuarial Accrued Liability	Funded Ratio	Annual Payroll	Unfunded (Surplus) Actuarial Accrued Liability as a Percentage of Payroll
Results Using the Aggregate Funding Method						
1/1/2018	\$395,302,474	\$394,774,736	\$(527,738)	100.1%	\$947,520,430	(0.1)%
1/1/2017	374,943,903	357,915,920	(17,027,983)	104.8%	917,099,955	(1.9)%
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)%

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.

Results Using the Entry Age Normal Funding Method

1/1/2018	\$395,302,474	\$412,597,445	\$17,294,972	95.8%	\$947,520,430	1.8 %
1/1/2017	374,943,903	372,201,460	(2,742,443)	100.7%	917,099,955	(0.3)%
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)%

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 assets, unless the market value of assets is used in the measurement.*

Statewide Death & Disability Plan

■ Age and Years of Service Distribution

Member Age	Member Count	Member Years of Service	Member Count
Under 25	304	0 to 4	4,381
25 to 29	1,294	5 to 9	1,697
30 to 34	1,913	10 to 14	2,203
35 to 39	1,952	15 to 19	2,003
40 to 44	1,889	20 and up	1,930
45 to 49	2,166		
50 to 54	1,468		
55 to 59	821		
60 to 64	322		
65 and up	85		
Total Members	12,214	Total Members	12,214
Average Age	41.4	Average Service	11.0

Statewide Death & Disability Plan

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 contribution 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 2018, the contribution rate was 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

Valuation Date	Actuarial Value of Assets (000's)	Aggregate Accrued Liabilities For			Portion of Accrued Liabilities Covered by Reported Assets		
		(1)	(2)	(3)			
		Active Member Contributions (000's)	Retirees, Beneficiaries and Vested Terminations (000's)	Members (Employer Financed Portion) (000's)	(1)	(2)	(3)
1/1/2018	\$395,302	\$0	\$346,593	\$48,182	100%	100%	100%
1/1/2017	374,944	0	318,379	39,537	100%	100%	100%
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%

Statewide Death & Disability Plan

■ 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 5, 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. 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 5, 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.

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 includes all personnel employed by a sheriff expected to work 1,600 hours or more in a calendar year who are directly involved with the provision of law enforcement or fire protection, as certified by the county, except that personnel whose position does not require passage of a fitness for duty test shall not be eligible for participation in the Statewide Death & Disability 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 their service requirement for purposes of Normal retirement while exhausting accumulated vacation leave.
- 3) 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.
- 4) Any amounts voluntarily contributed to an Internal Revenue Code Section 125 "Cafeteria Plan" shall be included in the Member's base salary.
- 5) 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 (a Member is deemed temporarily acting in a higher rank if the appointment to the rank is anticipated

Statewide Death & Disability Plan

to last less than six months), 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).

- 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 increased to 2.7 percent of base salary as of January 1, 2017. The contribution rate increased to 2.8 percent of base salary as of January 1, 2019. 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 of the member's monthly base salary. Benefits will be paid to the spouse until death and to dependent children until age 23, death, marriage or other termination of dependency. Benefits may be extended for an incapacitated child.

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 their 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.

Statewide Death & Disability Plan

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

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

Total disability and permanent occupational disability benefits are offset by the Money Purchase, SRA or DROP 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 Money Purchase Balances, SRA, and DROP

Plan benefits are reduced by the actuarially equivalent annuities of the Money Purchase, SRA, 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

The Plan provides four choices for receipt of the Permanent Occupational and Total Disability benefits:

- | | |
|---------------|---|
| Normal Option | The disabled retiree receives an unreduced benefit, payable for as long as the disability exists and as long as the member remains eligible. Upon the death of the retiree, the benefit is discontinued. |
| Option 1 | (Joint and 100% Survivor) - The disabled retiree's benefit amount is reduced on an actuarially equivalent basis, payable for as long as the disability exists and as long as the member remains eligible. Upon the death of the retiree, the designated beneficiary receives 100 percent of the retiree's actuarially equivalent reduced benefit for life. |
| Option 2 | (Joint and 50% Survivor) - The disabled retiree's benefit amount is reduced on an actuarially equivalent basis, payable for as long as the disability exists and as long as the member remains eligible. Upon the death of the retiree, the designated beneficiary receives 50 percent of the retiree's actuarially equivalent reduced benefit for life. |
| Option 3 | (Family Benefit) - The disabled retiree's benefit amount is reduced on an actuarially equivalent basis, payable for as long as the disability exists and as long as the member remains eligible. Upon the death of the retiree, the actuarially equivalent reduced benefit amount is paid to the surviving spouse* and dependent children, if any, until the death of the surviving spouse, the death of any incapacitated child, or until the youngest child reaches age 23, whichever is later. |

**Per FPPA Rule 402.10(c) 'Spouse' for the purposes of Payment Option 3 means the Member's spouse at the time the first benefit payment is negotiated. If the spouse beneficiary is removed by the Member, or dies, the Member is not permitted to add a subsequent spouse.*

Actuarial equivalence is based on tables adopted by the Fire & Police Pension Association Board of Directors.

Statewide Death & Disability Plan

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 1. 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

There were no changes in actuarial assumptions since the January 1, 2017 valuation.

Affiliated Local Plans

Actuarial valuations are completed every other year for the Affiliated Local Plans. The affiliated volunteer fire pension plans' actuarial valuations are completed on the odd years and the old hire actuarial pension plans' actuarial valuations 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	Active Paid and Volunteer Member Count	Annual Payroll of Paid Members	Average Annual Salary of Paid Members	% Change in Average Salary
1/1/2017 and 1/1/2018	221	2,801	\$294,101	\$98,034	4.64 %
1/1/2016 and 1/1/2017	221	2,818	281,057	93,686	0.00 %
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	0.63 %
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	(2.77)%
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 %

■ 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 1/1/2017 and 1/1/2018 actuarial valuations.

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

Year Ended	Added to Payroll		Removed from Payroll		Payroll		% Increase in Annual Benefit	Average Annual Benefit
	Number	Annual Benefit	Number	Annual Benefit	Number	Annual Benefit		
1/1/2017 and 1/1/2018	N/A	N/A	N/A	N/A	6,405	\$172,120,154	N/A	\$26,873
1/1/2016 and 1/1/2017	N/A	N/A	N/A	N/A	6,526	168,488,670	N/A	25,818
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

Affiliated Local Plans

Solvency Test

Each employer participating in the system is financially responsible for its own liabilities. Accordingly, the aggregate numbers presented are indicative only of the overall condition of the system and are not indicative of the status of any one employer.

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.

■ Solvency Test

Valuation Date	Actuarial Value of Assets (000's)	Aggregate Accrued Liabilities For			Portion of Accrued Liabilities Covered by Reported Assets		
		(1)	(2)	(3)			
		Active Member Contributions (000's)	Retirees, Beneficiaries and Vested Terminations (000's)	Members (Employer Financed Portion) (000's)	(1)	(2)	(3)
1/1/2017 and 1/1/2018	\$1,589,515	*	*	\$2,002,494	N/A	N/A	79.4%
1/1/2016 and 1/1/2017	1,637,880	*	*	2,037,472	N/A	N/A	80.4%
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%

* 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.

Affiliated Local Plans

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 valuation prior to adopting any benefit changes to the plan. Local volunteer fire plans are required to complete a supplemental actuarial valuation 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, 2018. 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 Old Hire plans.

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

- Reduce inflation from 3.0% to 2.5%,
- Increase real return from 4.5% to 5.0%,
- Update pre- and post-retirement mortality to a table based on RP-2014 generational mortality. Post-retirement mortality includes 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.

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Affiliated Local Plans

Summary of Actuarial Valuation Information

Employer Plan	Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded (Surplus) Actuarial Accrued Liability	Funded Ratio	Annual Active Covered Payroll
Adams County (North Washington) FPD (Old Hire)	1/1/2018	\$2,272,639	\$3,442,679	\$1,170,040	66.0%	\$0
Adams County (North Washington) FPD (Volunteer)	1/1/2017	168,659	152,178	(16,481)	110.8%	N/A
Alamosa County FPD (Volunteer)	1/1/2017	617,355	643,127	25,772	96.0%	N/A
Alamosa Fire (Volunteer)	1/1/2017	1,687,928	1,371,270	(316,658)	123.1%	N/A
Allenspark FPD (Volunteer)	1/1/2017	525,595	620,809	95,214	84.7%	N/A
Aspen FPD (Volunteer)	1/1/2017	2,133,263	3,735,243	1,601,980	57.1%	N/A
Ault FPD (Volunteer)	1/1/2017	669,712	1,253,986	584,274	53.4%	N/A
Aurora Fire (Old Hire)	1/1/2018	76,166,031	106,740,683	30,574,652	71.4%	0
Aurora Police (Old Hire)	1/1/2018	92,941,758	135,680,618	42,738,860	68.5%	111,083
Bancroft FPD (Old Hire)	1/1/2018	1,603,208	5,960,042	4,356,834	26.9%	0
Basalt & Rural FPD (Volunteer)	1/1/2017	1,820,737	2,182,634	361,897	83.4%	N/A
Bennett FPD #7 (Volunteer)	1/1/2017	957,720	798,236	(159,484)	120.0%	N/A
Berthoud FPD (Volunteer)	1/1/2017	546,050	668,705	122,655	81.7%	N/A
Big Sandy FPD (Volunteer)	1/1/2017	148,756	53,023	(95,733)	280.5%	N/A
Big Thompson Canyon Fire (Volunteer)	1/1/2017	405,372	601,597	196,225	67.4%	N/A
Black Forest Fire Rescue (Volunteer)	1/1/2017	1,235,285	897,220	(338,065)	137.7%	N/A
Blanca Fire (Volunteer)	1/1/2017	154,404	131,802	(22,602)	117.1%	N/A
Boone Fire (Volunteer)	1/1/2017	39,014	39,754	740	98.1%	N/A
Boulder Mountain FPD (Volunteer)	1/1/2017	938,008	1,018,388	80,380	92.1%	N/A
Boulder Rural FPD (Volunteer)	1/1/2017	564,998	1,559,099	994,101	36.2%	N/A
Brighton VFD (Volunteer)	1/1/2017	3,730,997	3,927,656	196,659	95.0%	N/A
Brush Combined Fire (Volunteer)	1/1/2017	840,991	1,370,946	529,955	61.3%	N/A
Buena Vista Fire (Volunteer)	1/1/2017	455,945	501,431	45,486	90.9%	N/A
Calhan FPD (Volunteer)	1/1/2017	159,661	116,198	(43,463)	137.4%	N/A
Cañon City Area FPD (Old Hire)	1/1/2018	2,978,977	5,286,613	2,307,636	56.3%	0
Cañon City Area FPD (Volunteer)	1/1/2017	262,420	415,042	152,622	63.2%	N/A
Carbondale & Rural FPD (Volunteer)	1/1/2017	2,355,475	2,419,060	63,585	97.4%	N/A
Cascade FPD (Volunteer)	1/1/2017	324,260	432,144	107,884	75.0%	N/A
Castle Rock Fire (Volunteer)	1/1/2017	976,167	1,201,828	225,661	81.2%	N/A
Cedaredge Police (Old Hire)	1/1/2018	78,144	39,866	(38,278)	196.0%	\$ -
Central City VFD (Volunteer)	1/1/2017	528,709	578,366	49,657	91.4%	N/A
Central Orchard Mesa FPD (Volunteer)	1/1/2017	92,016	297,946	205,930	30.9%	N/A
Cherry Hills FPD (Old Hire)	1/1/2018	2,329,191	4,340,929	2,011,738	53.7%	0
Cheyenne County FPD #1 (Volunteer)	1/1/2017	468,590	554,266	85,676	84.5%	N/A
Clear Creek Fire Authority (Volunteer)	1/1/2017	2,027,871	1,964,696	(63,175)	103.2%	N/A
Clifton FPD (Volunteer)	1/1/2017	1,779,099	1,663,955	(115,144)	106.9%	N/A
Coal Creek Canyon FPD (Volunteer)	1/1/2017	1,056,698	1,491,734	435,036	70.8%	N/A

*Eligible at age 50 with 20 years of service

Note: Information reported is the known Volunteer Plan Normal Retirement Benefit as of December 31, 2018.

Calculated Annual Contribution	Additional Information							
	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)*
\$199,964	8	0	0	10	0	N/A	N/A	N/A
(1,251)	12	0	0	9	0	N/A	N/A	\$350
8,220	20	24	0	18	1	40.7	15.8	200
(23,395)	20	23	0	32	4	31.9	5.9	375
21,575	20	22	0	17	2	47.6	7.1	250
181,797	20	23	0	50	4	41.3	7.7	600
57,919	20	11	0	21	0	42.7	7.8	500
3,033,111	19	0	1	131	0	N/A	N/A	N/A
4,164,773	20	1	0	146	0	63.0	41.9	N/A
816,493	7	0	0	14	0	N/A	N/A	N/A
48,448	20	8	0	38	0	52.6	12.5	600
(5,642)	20	22	0	24	6	32.2	3.5	275
11,746	20	2	0	21	0	42.0	11.0	400
(9,160)	20	10	0	9	0	38.8	8.9	50
29,466	20	15	0	11	3	35.7	4.1	400
(29,408)	20	4	0	20	1	40.0	2.5	500
(1,140)	20	0	0	4	0	N/A	N/A	350
1,224	20	10	0	7	0	37.2	8.8	50
25,036	20	35	0	35	1	53.7	10.5	200
102,338	20	7	0	30	4	43.3	8.9	500
18,752	20	1	0	38	4	N/A	N/A	950
64,660	20	26	0	36	4	37.8	8.6	260
10,422	20	13	0	12	4	42.8	5.0	250
(1,129)	20	14	0	2	3	39.2	8.1	150
222,281	20	0	0	10	0	N/A	N/A	N/A
18,006	20	11	0	14	0	42.0	8.8	200
68,207	20	25	0	47	4	42.4	4.4	500
13,283	20	10	0	16	0	48.8	9.7	200
25,867	20	2	0	19	1	49.5	16.0	675
(10,113)	5	0	0	1	0	N/A	N/A	N/A
15,691	20	13	0	8	3	30.8	2.2	500
23,306	20	10	0	9	0	45.5	7.8	270
216,735	16	0	0	10	0	N/A	N/A	N/A
11,230	20	27	0	17	0	39.3	9.4	200
(7,705)	20	8	0	38	9	40.0	13.5	450
(5,280)	20	6	0	27	4	38.4	5.4	600
61,472	20	32	0	34	9	46.8	6.9	300

Affiliated Local Plans

Summary of Actuarial Information

Employer Plan	Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded (Surplus) Actuarial Accrued Liability	Funded Ratio	Annual Active Covered Payroll
Colorado River (Burning Mountains) FPD (Volunteer)	1/1/2017	\$2,561,833	\$3,065,210	\$503,377	83.6%	N/A
Colorado River (Rifle) FPD (Volunteer)	1/1/2017	4,955,605	3,085,440	(1,870,165)	160.6%	N/A
Colorado Springs Fire (Old Hire)	1/1/2018	74,096,017	95,398,783	21,302,766	77.7%	0
Colorado Springs Police (Old Hire)	1/1/2018	62,691,163	80,146,168	17,455,005	78.2%	0
Cortez Police (Old Hire)	1/1/2018	288,992	84,116	(204,876)	343.6%	0
Crested Butte FPD (Volunteer)	1/1/2017	3,306,819	3,237,360	(69,459)	102.1%	N/A
Cripple Creek Fire (Volunteer)	1/1/2017	557,841	183,953	(373,888)	303.3%	N/A
Crowley VFD (Volunteer)	1/1/2017	44,339	12,125	(32,214)	365.7%	N/A
Crystal Lakes FPD (Volunteer)	1/1/2017	294,417	240,742	(53,675)	122.3%	N/A
Del Norte Police (Old Hire)	1/1/2018	4,624	11,594	6,970	39.9%	0
Denver Fire (Old Hire)	1/1/2018	332,556,821	486,431,398	153,874,577	68.4%	96,364
Denver Police (Old Hire)	1/1/2018	611,658,533	691,034,748	79,376,215	88.5%	0
Divide VFD (Volunteer)	1/1/2017	498,386	378,576	(119,810)	131.6%	N/A
Donald Wescott FPD (Volunteer)	1/1/2017	940,407	771,182	(169,225)	121.9%	N/A
Dove Creek FPD (Volunteer)	1/1/2017	422,823	1,261,868	839,045	33.5%	N/A
Durango Fire (Old Hire)	1/1/2018	1,007,372	2,221,913	1,214,541	45.3%	0
Durango Police (Old Hire)	1/1/2018	1,551,180	2,920,562	1,369,382	53.1%	0
Durango FPD (Volunteer)	1/1/2017	5,499,378	6,331,020	831,642	86.9%	N/A
Eads Fire (Volunteer)	1/1/2017	153,858	108,271	(45,587)	142.1%	N/A
East Grand FPD #4 (Volunteer)	1/1/2017	2,069,460	2,398,109	328,649	86.3%	N/A
Eaton FPD (Volunteer)	1/1/2017	1,362,886	2,288,709	925,823	59.5%	N/A
Eckley Fire (Volunteer)	1/1/2017	24,791	51,342	26,551	48.3%	N/A
Elbert FPD & Rescue (Volunteer)	1/1/2017	207,115	83,593	(123,522)	247.8%	N/A
Elizabeth FPD (Volunteer)	1/1/2017	1,084,285	1,824,199	739,914	59.4%	N/A
Elk Creek FPD (Volunteer)	1/1/2017	2,711,535	2,252,919	(458,616)	120.4%	N/A
Englewood Fire (Old Hire)	1/1/2018	5,882,977	8,312,536	2,429,559	70.8%	0
Englewood Police (Old Hire)	1/1/2018	4,259,065	8,135,824	3,876,759	52.3%	0
Englewood Fire (Volunteer)	1/1/2017	47,810	111,172	63,362	43.0%	N/A
Evans FPD (Volunteer)	1/1/2017	715,082	1,550,534	835,452	46.1%	N/A
Evergreen FPD (Volunteer)	1/1/2017	4,667,159	6,101,903	1,434,744	76.5%	N/A
Falcon FPD (Volunteer)	1/1/2017	592,730	965,556	372,826	61.4%	N/A
Federal Heights Fire (Volunteer)	1/1/2017	2,998,439	365,977	(2,632,462)	819.3%	N/A
Fisher's Peak FPD (Volunteer)	1/1/2017	195,695	99,114	(96,581)	197.4%	N/A
Florence FPD (Volunteer)	1/1/2017	1,829,207	1,537,484	(291,723)	119.0%	N/A
Foothills Fire & Rescue (Volunteer)	1/1/2017	1,619,679	1,962,678	342,999	82.5%	N/A
Fort Lewis Mesa FPD (Volunteer)	1/1/2017	379,764	485,441	105,677	78.2%	N/A
Fort Morgan Police (Old Hire)	1/1/2018	413,805	1,331,432	917,627	31.1%	0
Fort Morgan Fire (Volunteer)	1/1/2017	1,218,017	2,671,151	1,453,134	45.6%	N/A

*Eligible at age 50 with 20 years of service

Note: Information reported is the known Volunteer Plan Normal Retirement Benefit as of December 31, 2018

	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)*
\$49,359	20	0	0	36	5	0.0	0.0	\$875.50
(177,693)	20	4	0	34	6	51.0	11.0	875.50
2,328,416	16	0	0	178	0	N/A	N/A	N/A
1,850,964	17	0	0	148	0	N/A	N/A	N/A
(31,595)	10	0	0	1	0	N/A	N/A	N/A
19,697	20	27	0	27	9	40.2	8.9	680
(37,295)	20	0	0	6	1	N/A	N/A	300
(2,432)	20	12	0	1	0	50.2	16.4	10
8,395	20	11	0	4	0	59.7	6.2	400
2,422	3	0	0	1	0	N/A	N/A	N/A
17,248,106	15	1	0	760	0	63.0	39.9	N/A
8,803,193	17	0	1	1,008	0	N/A	N/A	N/A
(1,492)	20	22	0	7	1	43.4	5.0	299
(11,099)	20	5	0	15	1	33.4	6.8	400
87,450	20	21	0	30	3	41.3	9.0	300
137,304	15	0	0	8	0	N/A	N/A	N/A
141,741	18	0	0	8	0	N/A	N/A	N/A
200,767	20	65	0	75	8	38.5	3.2	800
(2,652)	20	22	0	5	0	30.1	9.2	100
70,485	20	33	0	31	5	37.0	5.6	600
137,736	20	35	0	21	1	28.0	3.2	1,200
3,800	20	14	0	11	0	42.2	14.5	26
(10,911)	20	13	0	5	1	45.8	13.3	75
73,306	20	0	0	26	1	N/A	N/A	750
(1,189)	20	46	0	57	2	37.6	5.7	400
286,886	14	0	0	38	0	N/A	N/A	N/A
414,667	16	0	0	34	0	N/A	N/A	N/A
13,796	7	0	0	6	0	N/A	N/A	450
82,282	20	2	0	24	5	43.5	8.5	675
266,777	20	92	0	69	13	40.4	5.1	600
38,106	20	0	0	26	1	N/A	N/A	520
(261,123)	20	8	0	4	4	28.8	4.0	650
(6,112)	20	21	0	0	4	45.2	9.5	100
(32,932)	20	55	0	41	0	37.6	7.0	300
63,966	20	40	0	47	6	43.4	5.1	400
16,711	20	9	0	14	2	44.8	6.8	300
113,746	13	0	0	3	0	N/A	N/A	N/A
150,267	20	30	0	40	3	36.7	9.0	450

Affiliated Local Plans

Summary of Actuarial Information

Employer Plan	Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded (Surplus) Actuarial Accrued Liability	Funded Ratio	Annual Active Covered Payroll
Fort Morgan Rural FPD (Volunteer)	1/1/2017	\$847,162	\$1,294,664	\$447,502	65.4%	N/A
Franktown FPD (Volunteer)	1/1/2017	3,177,172	843,970	(2,333,202)	376.5%	N/A
Frederick Firestone FPD (Volunteer)	1/1/2017	134,859	251,429	116,570	53.6%	N/A
Galeton FPD (Volunteer)	1/1/2017	1,347,638	1,633,806	286,168	82.5%	N/A
Genesee FPD (Volunteer)	1/1/2017	1,521,904	1,748,269	226,365	87.1%	N/A
Glacier View FPD (Volunteer)	1/1/2017	298,199	204,075	(94,124)	146.1%	N/A
Glendale Fire (Volunteer)	1/1/2017	224,050	94,736	(129,314)	236.5%	N/A
Glenwood Springs Fire (Volunteer)	1/1/2017	677,116	1,115,982	438,866	60.7%	N/A
Golden Fire (Volunteer)	1/1/2017	2,867,018	4,927,679	2,060,661	58.2%	N/A
Golden Gate FPD (Volunteer)	1/1/2017	318,386	269,351	(49,035)	118.2%	N/A
Grand FPD #1 (Volunteer)	1/1/2017	1,341,119	2,465,745	1,124,626	54.4%	N/A
Grand Junction Fire (Old Hire)	1/1/2018	8,450,342	12,171,463	3,721,121	69.4%	0
Grand Junction Police (Old Hire)	1/1/2018	3,780,192	3,295,619	(484,573)	114.7%	0
Grand Lake FPD (Volunteer)	1/1/2017	1,663,201	1,142,126	(521,075)	145.6%	N/A
Grand Valley FPD (Volunteer)	1/1/2017	3,699,225	1,928,251	(1,770,974)	191.8%	N/A
Greeley Police (Old Hire)	1/1/2018	748,207	1,024,720	276,513	73.0%	0
Greeley (Union Colony) Fire (Old Hire)	1/1/2018	8,375,268	10,155,420	1,780,152	82.5%	0
Green Mountain Falls-Chipita Park FPD (Volunteer)	1/1/2017	273,579	441,215	167,636	62.0%	N/A
Gypsum FPD (Volunteer)	1/1/2017	644,096	888,635	244,539	72.5%	N/A
Hartsel FPD (Volunteer)	1/1/2017	691,674	1,205,800	514,126	57.4%	N/A
Haxtun Fire (Volunteer)	1/1/2017	182,002	168,194	(13,808)	108.2%	N/A
Haxtun Police (Old Hire)	1/1/2018	141,842	266,797	124,955	53.2%	0
Hillrose Rural FPD (Volunteer)	1/1/2017	304,040	418,303	114,263	72.7%	N/A
Holyoke Fire (Volunteer)	1/1/2017	230,965	193,136	(37,829)	119.6%	N/A
Holyoke FPD (Volunteer)	1/1/2017	203,527	380,585	177,058	53.5%	N/A
Hot Sulphur Springs/Parshall FPD (Volunteer)	1/1/2017	254,911	186,847	(68,064)	136.4%	N/A
Hygiene FPD (Volunteer)	1/1/2017	1,275,437	868,155	(407,282)	146.9%	N/A
Indian Hills FPD (Volunteer)	1/1/2017	322,197	537,399	215,202	60.0%	N/A
Inter-Canyon FPD (Volunteer)	1/1/2017	1,573,502	2,173,542	600,040	72.4%	N/A
Jackson 105 FPD (Volunteer)	1/1/2017	293,723	444,538	150,815	66.1%	N/A
Jefferson-Como FPD (Volunteer)	1/1/2017	1,201,246	562,385	(638,861)	213.6%	N/A
Kiowa FPD (Volunteer)	1/1/2017	831,446	630,130	(201,316)	131.9%	N/A
Kremmling FPD (Volunteer)	1/1/2017	491,116	747,230	256,114	65.7%	N/A
La Junta Fire (Old Hire)	1/1/2018	810,025	1,436,967	626,942	56.4%	0
La Junta Police (Old Hire)	1/1/2018	679,904	1,054,328	374,424	64.5%	0
La Junta Fire (Volunteer)	1/1/2017	589,609	388,899	(200,710)	151.6%	N/A
La Salle Police (Old Hire)	1/1/2018	1,392,147	1,173,365	(218,782)	118.6%	86,654
La Salle FPD (Volunteer)	1/1/2017	2,891,667	3,812,893	921,226	75.8%	N/A

*Eligible at age 50 with 20 years of service

Note: Information reported is the known Volunteer Plan Normal Retirement Benefit as of December 31, 2018

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)*
\$45,313	20	30	0	39	2	36.7	8.4	\$225
(237,131)	20	10	0	22	1	43.8	12.4	350
15,877	11	0	0	14	0	N/A	N/A	200
34,849	20	14	0	11	2	41.3	5.5	900
58,512	20	32	0	40	0	47.9	5.9	450
(680)	20	14	0	5	3	46.6	3.4	250
(12,329)	20	0	0	12	0	N/A	N/A	100
44,500	20	2	0	22	2	54.0	5.0	550
231,006	20	31	0	61	9	36.9	10.1	615
(4,917)	20	1	0	10	0	35.0	10.0	300
121,386	20	15	0	28	3	37.8	7.2	700
417,150	15	0	0	34	0	N/A	N/A	N/A
(66,810)	11	0	0	13	0	N/A	N/A	N/A
(40,016)	20	4	0	11	2	48.3	2.5	900
(161,540)	20	11	0	20	1	34.0	5.6	891
40,683	10	0	0	7	0	N/A	N/A	N/A
234,631	13	0	0	29	0	N/A	N/A	N/A
20,558	20	11	0	10	0	44.8	7.3	325
34,096	20	10	0	13	3	37.2	7.0	500
73,406	20	14	0	19	3	49.2	5.9	650
(178)	20	29	0	20	0	39.2	11.6	50
13,505	19	0	0	1	0	N/A	N/A	N/A
13,938	20	13	0	13	2	42.7	9.2	200
(2,114)	20	20	0	24	4	37.9	6.3	55
19,213	20	27	0	46	4	43.0	10.1	60
(3,636)	20	10	0	5	0	35.7	4.1	250
(30,469)	20	28	0	22	3	41.8	5.5	300
28,669	20	15	0	17	0	41.6	6.3	250
85,398	20	42	0	26	1	42.7	6.6	432
17,461	20	7	0	17	3	44.0	5.0	200
(35,193)	20	15	0	7	0	41.8	2.7	1,000
(10,973)	20	14	0	13	4	28.2	2.4	400
30,788	20	9	0	13	3	38.4	5.2	450
71,924	15	0	0	4	0	N/A	N/A	N/A
54,550	10	0	0	3	0	N/A	N/A	N/A
(10,045)	20	18	0	5	0	37.9	10.8	200
(20,949)	19	1	0	0	0	66.0	45.0	N/A
98,735	20	26	0	30	3	27.8	2.8	1,000

Affiliated Local Plans

Summary of Actuarial Information

Employer Plan	Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded (Surplus) Actuarial Accrued Liability	Funded Ratio	Annual Active Covered Payroll
Lafayette Fire (Volunteer)	1/1/2017	\$1,387,707	\$2,328,493	\$940,786	59.6%	N/A
Lake City Area FPD (Volunteer)	1/1/2017	103,732	27,641	(76,091)	375.3%	N/A
Lake Dillon FPD (Volunteer)	1/1/2017	3,982,200	4,938,265	956,065	80.6%	N/A
Lake George FPD (Volunteer)	1/1/2017	338,265	442,795	104,530	76.4%	N/A
Lakewood FPD (Old Hire)	1/1/2018	12,574,992	13,835,716	1,260,724	90.9%	0
Lamar Fire (Old Hire)	1/1/2016	982,150	281,671	(700,479)	348.7%	0
Lamar Fire (Volunteer)	1/1/2017	898,812	333,237	(565,575)	269.7%	N/A
Larkspur FPD (Volunteer)	1/1/2017	1,492,485	2,083,358	590,873	71.6%	N/A
Las Animas Police (Old Hire)	1/1/2016	231,521	462,558	231,037	50.1%	0
Leadville Fire (Old Hire)	1/1/2016	136,707	259,957	123,250	52.6%	0
Lefthand FPD (Volunteer)	1/1/2017	1,313,288	869,740	(443,548)	151.0%	N/A
Lewis-Arriola FPD (Volunteer)	1/1/2017	1,392,264	1,813,918	421,654	76.8%	N/A
Limon Area FPD (Volunteer)	1/1/2017	664,298	283,039	(381,259)	234.7%	N/A
Livermore FPD (Volunteer)	1/1/2017	196,091	190,611	(5,480)	102.9%	N/A
Log Hill Mesa FPD (Volunteer)	1/1/2017	373,689	350,654	(23,035)	106.6%	N/A
Loveland & Rural Consolidated VFD (Volunteer)	1/1/2017	2,776,027	3,993,486	1,217,459	69.5%	N/A
Loveland Fire (Old Hire)	1/1/2016	103,697	88,984	(14,713)	116.5%	0
Lower Valley FPD (Volunteer)	1/1/2017	1,732,941	1,316,707	(416,234)	131.6%	N/A
Lyons FPD (Volunteer)	1/1/2017	1,177,235	957,530	(219,705)	122.9%	N/A
Mancos FPD (Volunteer)	1/1/2017	1,028,766	291,586	(737,180)	352.8%	N/A
Manitou Springs Fire (Old Hire)	1/1/2016	344,727	524,669	179,942	65.7%	0
Manitou Springs VFD (Volunteer)	1/1/2017	358,381	589,349	230,968	60.8%	N/A
Manzanola Rural FPD (Volunteer)	1/1/2017	197,032	105,020	(92,012)	187.6%	N/A
Montrose FPD (Old Hire)	1/1/2016	99,856	289,711	189,855	34.5%	0
Montrose FPD (Volunteer)	1/1/2017	619,062	957,786	338,724	64.6%	N/A
Mountain View FPD (Old Hire)	1/1/2016	280,460	332,443	51,983	84.4%	0
Mountain View FPD (Volunteer)	1/1/2017	2,369,702	2,649,061	279,359	89.5%	N/A
Nederland FPD (Volunteer)	1/1/2017	713,584	723,460	9,876	98.6%	N/A
New Raymer/Stoneham FPD (Volunteer)	1/1/2017	889,731	261,688	(628,043)	340.0%	N/A
North Fork FPD (Volunteer)	1/1/2017	306,986	391,634	84,648	78.4%	N/A
North Routt County Fire (Volunteer)	1/1/2017	284,938	396,712	111,774	71.8%	N/A
Northeast Teller County FPD (Volunteer)	1/1/2017	605,318	718,738	113,420	84.2%	N/A
North-West FPD (Volunteer)	1/1/2017	316,134	632,186	316,052	50.0%	N/A
Northwest Conejos FPD (Volunteer)	1/1/2017	510,318	677,645	167,327	75.3%	N/A
Norwood FPD (Volunteer)	1/1/2017	484,175	396,202	(87,973)	122.2%	N/A
Nucla-Naturita FPD (Volunteer)	1/1/2017	687,772	513,332	(174,440)	134.0%	N/A
Nunn FPD (Volunteer)	1/1/2017	998,225	375,407	(622,818)	265.9%	N/A
Oak Creek FPD (Volunteer)	1/1/2017	367,168	762,736	395,568	48.1%	N/A

*Eligible at age 50 with 20 years of service

Note: Information reported is the known Volunteer Plan Normal Retirement Benefit as of December 31, 2018

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)*
\$84,663	20	0	0	37	6	N/A	N/A	\$600
(4,583)	20	11	0	1	1	49.3	3.0	100
91,438	20	1	0	50	1	N/A	N/A	1,000
24,279	20	13	0	6	1	61.8	7.2	450
176,257	12	0	0	36	0	N/A	N/A	N/A
(83,262)	15	0	0	1	0	N/A	N/A	N/A
(52,208)	20	37	0	5	1	35.4	6.5	250
70,028	20	8	0	30	0	47.6	7.6	695
29,203	13	0	0	3	0	N/A	N/A	N/A
15,582	14	0	0	3	0	N/A	N/A	N/A
(20,697)	20	29	0	18	0	46.6	6.0	400
54,216	20	26	0	31	4	34.3	8.4	425
(31,932)	20	21	0	13	2	37.8	3.8	175
8,046	20	21	0	6	0	54.0	5.6	200
6,615	20	25	0	18	0	55.1	6.8	200
114,327	20	0	0	62	4	N/A	N/A	750
(3,965)	4	0	0	1	0	N/A	N/A	N/A
(32,447)	20	21	0	17	8	31.9	3.0	600
4,665	20	38	0	16	8	37.2	4.3	350
(74,509)	20	13	0	5	0	41.6	10.7	200
18,730	20	0	0	1	0	N/A	N/A	N/A
28,688	20	30	0	21	1	37.2	3.9	225
(8,488)	20	11	0	7	0	43.5	14.5	60
26,163	12	0	0	2	0	N/A	N/A	N/A
35,912	20	2	0	14	1	46.0	12.5	775
12,629	7	0	0	1	0	N/A	N/A	N/A
28,076	20	2	0	69	12	51.0	7.0	500
8,226	20	8	0	10	3	51.3	13.4	400
(105,958)	20	12	0	6	3	36.5	7.6	200
14,042	20	29	0	11	0	47.7	8.8	160
15,439	20	9	0	10	1	49.5	5.6	300
9,165	20	1	0	21	4	33.0	7.0	400
34,347	20	3	0	13	1	53.7	9.7	475
20,424	20	28	0	41	13	39.2	11.9	100
(6,488)	20	26	0	9	1	51.0	10.7	175
(15,274)	20	16	0	19	1	40.6	8.3	200
(58,396)	20	12	0	4	1	41.8	11.3	325
40,136	20	4	0	16	4	46.0	12.0	400

Affiliated Local Plans

Summary of Actuarial Information

Employer Plan	Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded (Surplus) Actuarial Accrued Liability	Funded Ratio	Annual Active Covered Payroll
Olathe FPD (Volunteer)	1/1/2017	\$659,340	\$1,122,529	\$463,189	58.7%	N/A
Olney Springs Fire (Volunteer)	1/1/2017	178,334	119,562	(58,772)	149.2%	N/A
Ordway Fire (Volunteer)	1/1/2017	223,889	144,959	(78,930)	154.4%	N/A
Ouray VFD (Volunteer)	1/1/2017	545,916	282,325	(263,591)	193.4%	N/A
Palisade VFD (Volunteer)	1/1/2017	1,008,921	462,686	(546,235)	218.1%	N/A
Palmer Lake Fire (Volunteer)	1/1/2017	28,184	97,155	68,971	29.0%	N/A
Parker FPD (Volunteer)	1/1/2017	334,369	641,936	307,567	52.1%	N/A
Pawnee FPD (Volunteer)	1/1/2017	192,221	40,774	(151,447)	471.4%	N/A
Peetz FPD (Volunteer)	1/1/2017	320,388	57	(320,331)	562,084.2%	N/A
Peyton FPD (Volunteer)	1/1/2017	59,807	27,585	(32,222)	216.8%	N/A
Pinewood Springs VFD (Volunteer)	1/1/2017	196,841	224,403	27,562	87.7%	N/A
Plateau Valley FPD (Volunteer)	1/1/2017	1,758,393	1,555,438	(202,955)	113.0%	N/A
Platte Canyon FPD (Volunteer)	1/1/2017	1,085,483	1,276,951	191,468	85.0%	N/A
Platte Valley FPD (Volunteer)	1/1/2017	2,267,943	1,853,892	(414,051)	122.3%	N/A
Platteville/Gilcrest FPD (Volunteer)	1/1/2017	4,312,604	5,252,554	939,950	82.1%	N/A
Pleasant View Metro Fire District (Volunteer)	1/1/2017	1,869,235	1,337,486	(531,749)	139.8%	N/A
Poudre Canyon FPD (Volunteer)	1/1/2017	115,235	84,548	(30,687)	136.3%	N/A
Poudre Fire Authority (Volunteer)	1/1/2017	114,925	128,651	13,726	89.3%	N/A
Pueblo Fire (Old Hire)	1/1/2018	34,862,138	46,751,643	11,889,505	74.6%	0
Pueblo Police (Old Hire)	1/1/2018	49,704,542	61,229,479	11,524,937	81.2%	0
Pueblo Rural FPD (Old Hire)	1/1/2018	1,775,968	2,056,357	280,389	86.4%	0
Rangely Rural FPD (Volunteer)	1/1/2017	614,990	689,686	74,696	89.2%	N/A
Rattlesnake FPD (Volunteer)	1/1/2017	1,073,277	1,172,314	99,037	91.6%	N/A
Red Feather Lakes FPD (Volunteer)	1/1/2017	328,032	447,757	119,725	73.3%	N/A
Red White & Blue FPD (Old Hire)	1/1/2018	223,605	588,739	365,134	38.0%	0
Red White & Blue FPD (Volunteer)	1/1/2017	1,283,479	1,001,788	(281,691)	128.1%	N/A
Ridgway FPD (Volunteer)	1/1/2017	693,609	385,606	(308,003)	179.9%	N/A
Rio Blanco FPD (Volunteer)	1/1/2017	4,589,919	3,683,934	(905,985)	124.6%	N/A
Rocky Ford Police (Old Hire)	1/1/2018	151,075	403,982	252,907	37.4%	0
Rocky Ford Fire (Volunteer)	1/1/2017	96,730	25,858	(70,872)	374.1%	N/A
Rocky Mountain VFD (Volunteer)	1/1/2017	354,569	509,274	154,705	69.6%	N/A
Sable Altura FPD (Volunteer)	1/1/2017	559,527	764,720	205,193	73.2%	N/A
Salida Fire (Old Hire)	1/1/2018	108,370	222,757	114,387	48.6%	0
Salida Police (Old Hire)	1/1/2018	517,608	1,255,945	738,337	41.2%	0
Sheridan Fire (Volunteer)	1/1/2017	341,816	858,474	516,658	39.8%	N/A
Silverton San Juan FRA (Volunteer)	1/1/2017	301,382	297,640	(3,742)	101.3%	N/A
South Adams County FPD (Old Hire)	1/1/2018	566,309	745,380	179,071	76.0%	0
South Adams County FPD (Volunteer)	1/1/2017	6,419,100	7,701,927	1,282,827	83.3%	N/A
South Arkansas FPD (Volunteer)	1/1/2017	\$152,038	\$159,073	\$7,035	95.6%	N/A

*Eligible at age 50 with 20 years of service

Note: Information reported is the known Volunteer Plan Normal Retirement Benefit as of December 31, 2018

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)*
\$59,339	20	19	0	20	2	34.9	5.2	\$500
(3,627)	20	6	0	5	2	48.6	11.0	150
(5,657)	20	12	0	13	0	42.3	10.6	75
(26,731)	20	25	0	24	1	45.5	9.5	90
(35,847)	20	42	0	14	3	30.1	3.1	300
7,691	20	19	0	10	0	29.9	2.6	100
30,619	20	0	0	20	0	N/A	N/A	420
(14,631)	20	9	0	2	0	44.9	14.4	50
(33,395)	20	19	0	0	0	37.4	7.7	0
(1,851)	20	11	0	1	1	34.9	3.7	100
11,339	20	17	0	3	0	57.1	7.6	250
5,136	20	19	0	12	0	45.9	11.3	700
24,592	20	12	0	20	0	46.2	10.3	425
(17,661)	20	19	0	22	7	30.8	4.2	750
96,732	20	3	0	46	8	40.5	4.5	1,061
61,842	20	50	0	3	3	28.4	3.0	1,400
4,460	20	42	0	0	1	49.6	4.4	100
2,305	20	1	0	5	0	63.0	30.0	300
1,519,685	12	0	1	126	0	N/A	N/A	N/A
1,278,836	15	0	0	111	0	N/A	N/A	N/A
33,335	14	0	0	7	0	N/A	N/A	N/A
23,465	20	26	0	11	0	35.0	6.9	350
35,307	20	36	0	23	2	37.0	6.4	375
18,260	20	6	0	11	1	62.7	3.7	400
49,923	11	0	0	2	0	N/A	N/A	N/A
(26,431)	20	0	0	31	3	N/A	N/A	400
(21,007)	20	18	0	11	0	40.9	4.9	300
(81,172)	20	27	0	35	1	41.0	7.1	900
35,709	11	0	0	2	0	N/A	N/A	N/A
(6,382)	20	24	0	5	1	38.6	7.4	25
18,150	20	1	0	22	2	66.0	27.0	200
57,666	20	32	0	9	5	34.4	3.7	550
14,622	14	0	0	3	0	N/A	N/A	N/A
80,582	16	0	0	6	0	N/A	N/A	N/A
66,102	12	0	0	18	1	N/A	N/A	579
2,373	20	25	0	11	6	52.4	12.6	100
21,315	15	0	0	2	0	N/A	N/A	N/A
125,749	20	8	0	64	9	37.6	9.0	1,000
1,774	20	0	0	6	0	N/A	N/A	225

Affiliated Local Plans

Summary of Actuarial Information

Employer Plan	Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded (Surplus) Actuarial Accrued Liability	Funded Ratio	Annual Active Covered Payroll
South Conejos FPD (Volunteer)	1/1/2017	\$260,843	\$241,102	\$(19,741)	108.2%	N/A
South Metro Fire Rescue (Volunteer)	1/1/2017	321,553	328,772	7,219	97.8%	N/A
Southwest Washington County FPD (Volunteer)	1/1/2017	160,842	151,764	(9,078)	106.0%	N/A
Springfield Police (Old Hire)	1/1/2018	424,594	340,015	(84,579)	124.9%	0
Springfield Fire (Volunteer)	1/1/2017	160,261	53,389	(106,872)	300.2%	N/A
Steamboat Springs VFD (Volunteer)	1/1/2017	1,324,825	1,549,419	224,594	85.5%	N/A
Sterling Fire (Old Hire)	1/1/2018	702,706	1,363,500	660,794	51.5%	0
Sterling Police (Old Hire)	1/1/2018	304,123	131,893	(172,230)	230.6%	0
Sterling Fire (Volunteer)	1/1/2017	414,683	492,963	78,280	84.1%	N/A
Stonewall FPD (Volunteer)	1/1/2017	976,557	764,225	(212,332)	127.8%	N/A
Stratton FPD (Volunteer)	1/1/2017	157,981	61,154	(96,827)	258.3%	N/A
Sugar City Fire (Volunteer)	1/1/2017	103,934	105,117	1,183	98.9%	N/A
Sugarloaf FPD (Volunteer)	1/1/2017	409,266	651,788	242,522	62.8%	N/A
Telluride FPD (Volunteer)	1/1/2017	2,015,287	2,940,892	925,605	68.5%	N/A
Thornton Fire (Old Hire)	1/1/2018	4,458,018	7,521,062	3,063,044	59.3%	0
Timberline FPD (Volunteer)	1/1/2017	1,734,031	1,937,293	203,262	89.5%	N/A
Trinidad Fire (Old Hire)	1/1/2018	645,786	962,356	316,570	67.1%	0
Trinidad Police (Old Hire)	1/1/2018	38,366	96,802	58,436	39.6%	0
Walsh VFD (Volunteer)	1/1/2017	89,355	51,007	(38,348)	175.2%	N/A
Wellington FPD (Volunteer)	1/1/2017	1,578,303	2,313,638	735,335	68.2%	N/A
West Cheyenne FPD (Volunteer)	1/1/2017	164,690	126,804	(37,886)	129.9%	N/A
West Douglas County FPD (Volunteer)	1/1/2017	555,105	888,709	333,604	62.5%	N/A
West Metro FPD (Volunteer)	1/1/2017	767,719	666,230	(101,489)	115.2%	N/A
West Routt FPD (Volunteer)	1/1/2017	2,773,891	2,200,353	(573,538)	126.1%	N/A
Westminster VFD (Volunteer)	1/1/2017	2,466,939	1,594,849	(872,090)	154.7%	N/A
Wet Mountain FPD (Volunteer)	1/1/2017	1,906,984	1,461,880	(445,104)	130.4%	N/A
Wiggins Rural FPD (Volunteer)	1/1/2017	1,153,366	940,655	(212,711)	122.6%	N/A
Wiley Rural FPD (Volunteer)	1/1/2017	139,804	47,929	(91,875)	291.7%	N/A
Windsor Severance FPD (Volunteer)	1/1/2017	2,815,855	3,346,267	530,412	84.1%	N/A
Yampa FPD (Volunteer)	1/1/2017	441,596	646,259	204,663	68.3%	N/A
Yuma Fire (Volunteer)	1/1/2017	575,582	307,186	(268,396)	187.4%	N/A

*Eligible at age 50 with 20 years of service

Note: Information reported is the known Volunteer Plan Normal Retirement Benefit as of December 31, 2018



	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)*
\$(1,787)	20	19	0	21	0	37.6	10.3	\$100
2,070	20	0	0	12	1	N/A	N/A	400
1,660	20	15	0	6	1	42.1	9.2	100
(9,525)	13	0	0	1	0	N/A	N/A	N/A
(9,256)	20	13	0	3	0	39.2	7.3	95
23,084	20	1	0	24	3	47.0	8.0	650
75,480	15	0	0	4	0	N/A	N/A	N/A
(31,947)	8	0	0	1	0	N/A	N/A	N/A
10,738	20	9	0	16	2	25.7	3.2	300
13,916	20	25	0	11	1	51.3	5.5	550
(8,896)	20	9	0	6	1	41.6	11.2	50
2,139	20	11	0	4	0	50.6	15.1	100
34,507	20	23	0	23	0	47.5	8.7	220
112,777	20	58	0	45	1	44.4	8.6	400
337,419	16	0	1	19	0	N/A	N/A	N/A
32,541	20	10	0	54	3	53.2	9.2	340
35,720	13	0	0	5	0	N/A	N/A	N/A
10,986	8	0	0	4	0	N/A	N/A	N/A
(1,757)	20	17	0	0	0	46.4	8.7	100
93,272	20	9	0	16	9	30.3	5.5	1,000
(1,881)	20	21	0	4	0	37.8	11.1	100
46,916	20	31	0	39	1	43.5	6.7	200
(12,697)	20	0	0	29	2	N/A	N/A	250
(45,073)	20	14	0	24	1	32.9	3.3	750
(86,067)	20	0	0	27	0	N/A	N/A	700
(42,699)	20	13	0	24	5	37.2	8.5	400
(25,119)	20	22	0	14	1	31.4	6.9	300
(7,646)	20	11	0	2	0	37.1	5.9	100
53,941	20	3	0	37	10	40.7	6.3	775
27,962	20	13	0	12	0	38.4	10.5	400
(26,278)	20	24	0	24	0	42.4	12.5	90

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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 183 - 184 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 185 - 198 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 199 - 203 Payment information according to Year Retired within the ranges of Years of Service Credit.
- **Schedule of Average Benefit Payments for New Benefit Recipients**
- Pages 204 - 207 **Principal Participating Employers by Plan**
- Pages 208 - 214 **Employers**
Those employers affiliated for coverage under each applicable plan.
- Pages 215 - 220 **Benefit and Refund Deductions from Net Position by Type.**

DEMOGRAPHIC AND ECONOMIC INFORMATION

- Pages 221 - 227 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	Members	Contributions for Service Reinstatements	Affiliations	Total
2018	\$(26,253,579)	\$2,963,908	\$117,474,954	\$227,980,598	\$38,107	\$85,589,804	\$407,793,792
2017	692,898,213	2,957,415	111,386,252	234,115,361		101,682,445	1,143,039,686
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

* 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 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	Other Expenses*	Total
2018	\$(47,193,641)	\$302,704,714	\$7,835,501	\$134,712,090	\$9,735,128	\$407,793,792
2017	707,143,465	284,981,165	7,587,441	135,616,702	7,710,913	1,143,039,686
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

* Other Expenses include Pension Expense & Change in Net Pension Liability and Other Post-Employment Benefits Expense & Change in Other Post-Employment Benefits Liability. This information is not available prior to 2015 with the implementation of GASB Statement No. 68 and GASB Statement No. 75 implemented in 2018.

■ Expenses by Type — All Plans

For Year Ended	Benefit Payments	Refunds	Administrative Expenses	Other Expenses*	Capital Expenses	Total
2018	\$302,704,714	\$134,712,090	\$7,835,501	\$9,735,128	\$441,925	\$455,429,358
2017	284,981,165	135,616,702	7,587,441	7,710,913	689,303	436,585,524
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

* Other Expenses include Pension Expense & Change in Net Pension Liability and Other Post-Employment Benefits Expense & Change in Other Post-Employment Benefits Liability. This information is not available prior to 2015 with the implementation of GASB Statement No. 68 and GASB Statement No. 75 implemented in 2018.

Changes in Fiduciary Net Position

Affiliated Local Plans

Additions	2018	2017	2016	2015
Employer Contributions	\$49,314,933	\$49,272,548	\$39,169,647	\$56,296,280
Member Contributions	125,265	158,659	156,691	169,253
Affiliations (Withdrawals)	0	(582,682)	0	(424,968)
State Contributions	2,963,908	2,957,415	2,942,988	2,916,894
Investment Income (Loss)	1,987,240	214,570,378	80,195,810	29,503,367
Total Additions	\$54,391,346	\$266,376,318	\$122,465,136	\$88,460,826
Deductions				
Benefit Payments:				
Retirees/Survivors	\$171,209,386	\$168,478,600	\$168,257,048	\$165,621,180
Death/Disability				
Refunds of Contributions	1,103,109	140,874	918,003	201,899
Administrative Costs	2,289,301	2,033,565	2,561,689	2,523,894
Total Deductions	\$174,601,796	\$170,653,039	\$171,736,740	\$168,346,973
Changes in Fiduciary Net Position	\$(120,210,450)	\$95,723,279	\$(49,271,604)	\$(79,886,147)
Changes in Net Pension and OPEB Liabilities	428,314	391,745	322,903	299,237
Pension and OPEB Expense	(2,532,316)	(2,194,466)	(500,661)	(464,315)
Fiduciary Net Position at Beginning of Year	1,605,454,528	1,511,533,970	1,560,983,332	1,645,665,903
Effect of Change in Accounting Principle	(233,691)			(4,631,346)
Fiduciary Net Position at End of Year	\$1,482,906,385	\$1,605,454,528	\$1,511,533,970	\$1,560,983,332

Statewide Death & Disability Plan

Additions	2018	2017	2016	2015
Employer Contributions				
Member Contributions	\$22,708,031	\$20,698,646	\$18,377,088	\$16,698,025
Affiliations (Withdrawals)				
State Contributions				
Investment Income (Loss)	96,106	52,449,216	17,960,708	5,609,096
Total Additions	\$22,804,137	\$73,147,862	\$36,337,796	\$22,307,121
Deductions				
Benefit Payments:				
Retirees/Survivors				
Death/Disability	\$30,235,382	\$28,157,074	\$26,128,642	\$24,096,515
Refunds of Contributions	38,107		59,172	0
Administrative Costs	1,953,652	1,881,828	761,530	706,905
Total Deductions	\$32,227,141	\$30,038,902	\$26,949,344	\$24,803,420
Changes in Fiduciary Net Position	\$(9,423,004)	\$43,108,960	\$9,388,452	\$(2,496,299)
Changes in Net Pension and OPEB Liabilities	229,606	211,564	76,837	67,190
Pension and OPEB Expense	(880,355)	(725,611)	(183,499)	(104,257)
Fiduciary Net Position at Beginning of Year	402,528,768	359,933,855	350,652,065	354,225,348
Effect of Change in Accounting Principle	(61,797)			(1,039,917)
Fiduciary Net Position at End of Year	\$392,393,218	\$402,528,768	\$359,933,855	\$350,652,065

Changes in Fiduciary Net Position

2014	2013	2012	2011	2010	2009
\$52,530,357	\$52,371,362	\$46,585,541	\$46,108,486	\$37,239,905	\$30,813,175
237,228	176,577	140,504	169,643	276,165	366,911
0	(1,537,861)	(17,186)	2,512,024	(678,910)	
2,929,781	145,255,639	8,303,953	3,102,866	3,078,432	2,908,504
109,355,637	218,204,672	154,887,279	11,809,291	178,431,326	240,361,700
\$165,053,003	\$414,470,389	\$209,900,091	\$63,702,310	\$218,346,918	\$274,450,290

\$164,721,406	\$165,121,187	\$165,552,566	\$162,511,376	\$164,220,145	\$157,644,750
521,475	848,221	315,017	584,749	1,823,003	5,045,932
2,680,031	3,160,989	3,200,335	3,002,396	2,927,262	2,797,233
\$167,922,912	\$169,130,397	\$169,067,918	\$166,098,521	\$168,970,410	\$165,487,915
\$(2,869,909)	\$245,339,992	\$40,832,173	\$(102,396,211)	\$49,376,508	\$108,962,375
1,648,535,812	1,403,195,820	1,362,363,647	1,464,759,858	1,415,383,350	1,306,420,975
\$1,645,665,903	\$1,648,535,812	\$1,403,195,820	\$1,362,363,647	\$1,464,759,858	\$1,415,383,350

2014	2013	2012	2011	2010	2009
\$15,521,154	\$14,561,110	\$13,616,969	\$12,956,389	\$12,309,050	\$11,885,404
22,363,360	45,003,288	32,323,103	2,035,621	33,679,604	42,062,468
\$37,884,514	\$59,564,398	\$45,940,072	\$14,992,010	\$45,988,654	\$53,947,872
\$22,707,843	\$21,018,988	\$19,482,152	\$18,217,570	\$17,376,644	\$15,995,412
12,647	32,919		47,192	58,440	14,242
722,214	827,325	673,194	592,716	544,161	485,984
\$23,442,704	\$21,879,232	\$20,155,346	\$18,857,478	\$17,979,245	\$16,495,638
\$14,441,810	\$37,685,166	\$25,784,726	\$(3,865,468)	\$28,009,409	\$37,452,234
339,783,538	302,098,372	276,313,646	280,179,114	252,169,705	214,717,471
\$354,225,348	\$339,783,538	\$302,098,372	\$276,313,646	\$280,179,114	\$252,169,705

Changes in Fiduciary Net Position

Defined Benefit System | Statewide Defined Benefit Plan

Additions	2018	2017	2016	2015
Employer Contributions	\$51,658,437	\$44,644,663	\$41,240,159	\$38,079,177
Member Contributions	148,063,507	156,811,895	59,793,315	70,733,575
Contributions for Service Reinstatement	38,107		20,412	
Affiliations (Withdrawals)				
State Contributions				
Investment Income (Loss)	(2,235,734)	298,390,499	101,487,849	30,600,923
Total Additions	\$197,524,317	\$499,847,057	\$202,541,735	\$139,413,675
Deductions				
Benefit Payments:				
Retirees/Survivors	\$77,206,066	\$65,977,013	\$60,019,888	\$53,129,403
Death/Disability				
Refunds of Contributions	3,406,375	2,187,599	1,813,180	1,763,962
Administrative Costs	3,227,311	3,135,932	3,383,944	3,022,771
Total Deductions	\$83,839,752	\$71,300,544	\$65,217,012	\$57,916,136
Changes in Fiduciary Net Position	\$113,684,565	\$428,546,513	\$137,324,723	\$81,497,539
Changes in Net Pension and OPEB Liabilities	469,827	387,829	422,911	353,403
Pension and OPEB Expense	(5,372,306)	(4,022,517)	(1,273,038)	(548,363)
Fiduciary Net Position at Beginning of Year	2,405,447,033	1,980,535,208	1,844,060,612	1,768,227,718
Effect of Change in Accounting Principle	(396,075)			(5,469,685)
Fiduciary Net Position at End of Year	\$2,513,833,044	\$2,405,447,033	\$1,980,535,208	\$1,844,060,612

Note: Data is presented for this plan beginning in 2014 to remain consistent with the Financial Section and the impact of the implementation of GASB Statement No. 67.

Changes in Fiduciary Net Position

2014	2013	2012	2011	2010	2009
\$35,919,292					
47,475,429					
10,815					
111,783,092					
\$195,188,628					
\$47,655,798					
1,848,698					
2,981,129					
\$52,485,625					
\$142,703,003					
1,625,524,715					
\$1,768,227,718					

Changes in Fiduciary Net Position

Defined Benefit System | Statewide Hybrid Plan – Defined Benefit Component

Additions	2018	2017	2016	2015
Employer Contributions	\$1,487,515	\$1,320,687	\$1,296,013	\$1,298,827
Member Contributions	3,529,530	8,967,398	4,117,438	4,323,776
Contributions for Service Reinstatement				
Affiliations (Withdrawals)				
State Contributions				
Investment Income (Loss)	(69,943)	8,122,829	2,656,991	673,519
Total Additions	\$4,947,102	\$18,410,914	\$8,070,442	\$6,296,122
Deductions				
Benefit Payments:				
Retirees/Survivors	\$1,771,264	\$1,493,664	\$1,191,766	\$953,099
Death/Disability				
Refunds of Contributions	326,973	27,870	17,151	18,365
Administrative Costs	88,989	77,914	87,869	73,679
Total Deductions	\$2,187,226	\$1,599,448	\$1,296,786	\$1,045,143
Changes in Fiduciary Net Position	\$2,759,876	\$16,811,466	\$6,773,656	\$5,250,979
Changes in Net Pension and OPEB Liabilities	11,604	10,138	11,307	8,852
Pension and OPEB Expense	(150,498)	(129,795)	(43,608)	(13,735)
Fiduciary Net Position at Beginning of Year	69,630,450	52,938,641	46,197,286	41,088,190
Effect of Change in Accounting Principle	(11,387)			(137,000)
Fiduciary Net Position at End of Year	\$72,240,045	\$69,630,450	\$52,938,641	\$46,197,286

Note: Data is presented for this plan beginning in 2014 to remain consistent with the Financial Section and the impact of the implementation of GASB Statement No. 67.

Changes in Fiduciary Net Position

2014	2013	2012	2011	2010	2009
\$1,235,014					
1,764,160					
2,565,885					
\$5,565,059					
\$752,330					
35,373					
67,974					
\$855,677					
\$4,709,382					
36,378,808					
\$41,088,190					

Changes in Fiduciary Net Position

Defined Benefit System | Colorado Springs New Hire Pension Plan – Fire Component

Additions	2018	2017	2016	2015
Employer Contributions	\$3,888,479	\$4,227,414	\$3,700,396	\$3,437,596
Member Contributions	922,006	1,082,336	1,082,855	1,202,513
Contributions for Service Reinstatement			38,760	
Affiliations (Withdrawals)				
State Contributions				
Investment Income (Loss)	40,574	18,451,858	6,576,572	2,213,385
Total Additions	\$4,851,059	\$23,761,608	\$11,398,583	\$6,853,494
Deductions				
Benefit Payments:				
Retirees/Survivors	\$8,350,312	\$7,989,856	\$7,395,735	\$6,234,574
Death/Disability				
Refunds of Contributions		159,851	167,056	
Administrative Costs	74,286	58,115	209,360	194,113
Total Deductions	\$8,424,598	\$8,207,822	\$7,772,151	\$6,428,687
Changes in Fiduciary Net Position	\$(3,573,539)	\$15,553,786	\$3,626,432	\$424,807
Changes in Net Pension and OPEB Liabilities	12,549	11,309	26,969	23,557
Pension and OPEB Expense	(241,203)	(193,563)	(64,820)	(36,553)
Fiduciary Net Position at Beginning of Year	141,825,730	126,454,198	122,865,617	122,818,402
Effect of Change in Accounting Principle	(21,744)			(364,596)
Fiduciary Net Position at End of Year	\$138,001,793	\$141,825,730	\$126,454,198	\$122,865,617

Note: Data is presented for this plan beginning in 2014 to remain consistent with the Financial Section and the impact of the implementation of GASB Statement No. 67.

Changes in Fiduciary Net Position

2014	2013	2012	2011	2010	2009
\$3,341,129					
1,278,915					
7,001					
7,931,299					
\$12,558,344					
\$5,406,076					
195,698					
\$5,601,774					
\$6,956,570					
115,861,832					
\$122,818,402					

Changes in Fiduciary Net Position

Defined Benefit System | Colorado Springs New Hire Pension Plan – Police Component

Additions	2018	2017	2016	2015
Employer Contributions	\$7,400,176	\$8,464,061	\$7,900,050	\$7,916,242
Member Contributions	2,222,102	2,311,298	2,707,964	2,493,427
Contributions for Service Reinstatement				
Affiliations (Withdrawals)				
State Contributions				
Investment Income (Loss)	34,090	40,779,138	14,390,904	4,700,518
Total Additions	\$9,656,368	\$51,554,497	\$24,998,918	\$15,110,187
Deductions				
Benefit Payments:				
Retirees/Survivors	\$13,925,233	\$12,877,649	\$11,592,619	\$10,115,964
Death/Disability				
Refunds of Contributions		18,007	83,530	99,734
Administrative Costs	146,034	122,594	452,011	412,521
Total Deductions	\$14,071,267	\$13,018,250	\$12,128,160	\$10,628,219
Changes in Fiduciary Net Position	\$(4,414,899)	\$38,536,247	\$12,870,758	\$4,481,968
Changes in Net Pension and OPEB Liabilities	27,571	25,082	59,129	50,691
Pension and OPEB Expense	(556,064)	(443,641)	(157,454)	(78,656)
Fiduciary Net Position at Beginning of Year	315,280,377	277,162,689	264,390,256	260,720,815
Effect of Change in Accounting Principle	(48,889)			(784,562)
Fiduciary Net Position at End of Year	\$310,288,096	\$315,280,377	\$277,162,689	\$264,390,256

Note: Data is presented for this plan beginning in 2014 to remain consistent with the Financial Section and the impact of the implementation of GASB Statement No. 67.

Changes in Fiduciary Net Position

2014	2013	2012	2011	2010	2009
\$7,728,841					
2,830,620					
16,759,706					
\$27,319,167					
\$8,928,010					
443,707.61					
409,357					
\$9,781,074.61					
\$17,538,092.39					
243,182,723					
\$260,720,815.39					

Changes in Fiduciary Net Position

FPPA Staff Healthcare Subsidy Plan

Additions	2018	2017	2016	2015
Employer Contributions	\$5,864	\$8,261	\$8,478	\$5,818
Member Contributions				
Affiliations (Withdrawals)				
State Contributions				
Investment Income (Loss)	154	34,391	12,207	4,159
Total Additions	\$6,018	\$42,652	\$20,685	\$9,977
Deductions				
Benefit Payments:				
Retirees/Survivors	\$7,071	\$7,309	\$12,690	\$10,198
Death/Disability				
Refunds of Contributions				
Administrative Costs	9,464	4,510	381	354
Total Deductions	\$16,535	\$11,819	\$13,071	\$10,552
Changes in Fiduciary Net Position	\$(10,517)	\$30,833	\$7,614	\$(575)
Changes in Net Pension and OPEB Liabilities	1,979	969	51	44
Pension and OPEB Expense	(2,386)	(1,320)	(125)	(68)
Fiduciary Net Position at Beginning of Year	267,735	237,253	229,713	230,994
Effect of Change in Accounting Principle	(40)			(682)
Fiduciary Net Position at End of Year	\$256,771	\$267,735	\$237,253	\$229,713

Fire & Police Members' Statewide Money Purchase Plan

Additions	2018	2017	2016	2015
Employer Contributions	\$430,442	\$438,454	\$424,263	\$405,178
Member Contributions	417,436	425,436	406,716	386,856
Affiliations (Withdrawals)				
State Contributions				
Investment Income (Loss)	(580,446)	1,789,042	732,303	(20,666)
Total Additions	\$267,432	\$2,652,932	\$1,563,282	\$771,368
Deductions				
Benefit Payments:				
Retirees/Survivors				
Death/Disability				
Refunds of Contributions	\$1,775,098	\$304,189	\$247,528	\$245,503
Administrative Costs	17,682	34,013	45,494	5,745
Total Deductions	\$1,792,780	\$338,202	\$293,022	\$251,248
Changes in Fiduciary Net Position	\$(1,525,348)	\$2,314,730	\$1,270,260	\$520,120
Fiduciary Net Position at Beginning of Year	12,459,723	10,144,993	8,874,733	8,354,613
Fiduciary Net Position at End of Year	\$10,934,375	\$12,459,723	\$10,144,993	\$8,874,733

Changes in Fiduciary Net Position

2014	2013	2012	2011	2010	2009
\$6,240	\$8,056	\$13,266	\$14,823	\$14,316	\$13,632
14,757	28,411	19,028	962	17,556	19,670
\$20,997	\$36,467	\$32,294	\$15,785	\$31,872	\$33,302
\$9,566	\$8,264	\$6,500	\$5,958	\$7,041	\$6,349
359					
\$9,925	\$8,264	\$6,500	\$5,958	\$7,041	\$6,349
\$11,072	\$28,203	\$25,794	\$9,827	\$24,831	\$26,953
219,922	191,719	165,925	156,098	131,267	104,314
\$230,994	\$219,922	\$191,719	\$165,925	\$156,098	\$131,267

2014	2013	2012	2011	2010	2009
\$385,503	\$402,308	\$378,338	\$313,947	\$319,739	\$295,874
367,925	383,665	357,791	297,614	312,330	295,874
				25,671	
412,534	999,304	681,003	71,541	684,169	958,382
\$1,165,962	\$1,785,277	\$1,417,132	\$683,102	\$1,341,909	\$1,550,130
\$300,406	\$951,163	\$1,067,020	\$175,587	\$402,564	\$262,920
(2,477)	3,360	8	11,116	6,460	14,623
\$297,929	\$954,523	\$1,067,028	\$186,703	\$409,024	\$277,543
\$868,033	\$830,754	\$350,104	\$496,399	\$932,885	\$1,272,587
7,486,580	6,655,826	6,305,722	5,809,323	4,876,438	3,603,851
\$8,354,613	\$7,486,580	\$6,655,826	\$6,305,722	\$5,809,323	\$4,876,438

Changes in Fiduciary Net Position

Self-Directed Assets for Affiliated Local & Defined Benefit System Plans

Additions	2018	2017	2016	2015
Employer Contributions	\$1,682,107	\$1,624,436	\$1,630,058	\$1,835,971
Member Contributions	37,568,521	33,719,225	32,195,754	31,834,156
Affiliations (Withdrawals)	85,589,804	102,265,127		
State Contributions				
Investment Income (Loss)	(16,624,768)	37,191,506	15,239,580	(906,517)
Total Additions	\$108,215,664	\$174,800,294	\$49,065,392	\$32,763,610
Deductions				
Benefit Payments:				
Retirees/Survivors				
Death/Disability				
Refunds of Contributions	\$121,239,015	\$127,314,764	\$41,738,925	\$62,813,697
Administrative Costs	981,502	1,037,020	1,078,844	782,721
Total Deductions	\$122,220,517	\$128,351,784	\$42,817,769	\$63,596,418
Changes in Fiduciary Net Position	\$(14,004,853)	\$46,448,510	\$6,247,623	\$(30,832,808)
<i>Fiduciary Net Position at Beginning of Year</i>	<i>300,559,778</i>	<i>254,111,268</i>	<i>247,863,645</i>	<i>278,696,453</i>
Fiduciary Net Position at End of Year	\$286,554,925	\$300,559,778	\$254,111,268	\$247,863,645

Note: Included above are the self-directed assets of the Statewide Hybrid - Money Purchase Component Plan and the Deferred Retirement Option Plan and Separate Retirements Accounts for Affiliated Local and Defined Benefit System Plans.

FPPA Multi-Employer Deferred Compensation Plan

Additions	2018	2017	2016	2015
Employer Contributions	\$1,607,001	\$1,385,728	\$1,161,895	\$905,027
Member Contributions	12,424,200	9,940,468	9,361,890	8,652,472
Affiliations (Withdrawals)				
State Contributions				
Investment Income (Loss)	(8,900,852)	21,119,356	7,728,217	930
Total Additions	\$5,130,349	\$32,445,552	\$18,252,002	\$9,558,429
Deductions				
Benefit Payments:				
Retirees/Survivors				
Death/Disability				
Refunds of Contributions	\$6,823,413	\$5,463,548	\$7,220,110	\$5,136,008
Administrative Costs	228,730	240,586	197,499	59,118
Total Deductions	\$7,052,143	\$5,704,134	\$7,417,609	\$5,195,126
Changes in Fiduciary Net Position	\$(1,921,794)	\$26,741,418	\$10,834,393	\$4,363,303
<i>Fiduciary Net Position at Beginning of Year</i>	<i>139,281,833</i>	<i>112,540,415</i>	<i>101,706,022</i>	<i>97,342,719</i>
Fiduciary Net Position at End of Year	\$137,360,039	\$139,281,833	\$112,540,415	\$101,706,022

Changes in Fiduciary Net Position

2014	2013	2012	2011	2010	2009
\$2,282,111	\$2,393,547	\$2,460,673	\$2,421,796	\$2,277,700	\$2,279,807
32,938,657	32,544,971	27,921,453	29,697,334	28,407,353	17,604,699
	11,888,411	2,094,860	83,427,455	865,113	26,112,745
12,440,752	29,174,866	20,173,141	1,596,788	16,632,880	27,211,960
\$47,661,520	\$76,001,795	\$52,650,127	\$117,143,373	\$48,183,046	\$73,209,211

\$39,891,560	\$42,699,246	\$42,317,300	\$67,711,031	\$27,588,789	\$22,942,996
797,665	638,000	679,615	649,032	336,571	271,171
\$40,689,225	\$43,337,246	\$42,996,915	\$68,360,063	\$27,925,360	\$23,214,167
\$6,972,295	\$32,664,549	\$9,653,212	\$48,783,310	\$20,257,686	\$49,995,044
271,724,158	239,059,609	229,406,397	180,623,087	160,365,401	110,370,357
\$278,696,453	\$271,724,158	\$239,059,609	\$229,406,397	\$180,623,087	\$160,365,401

2014	2013	2012	2011	2010	2009
\$815,971	\$790,036	\$754,739	\$700,428		
7,289,039	7,232,784	7,519,449	6,080,792	7,084,610	5,860,778
		(3,605,954)			
5,370,110	13,771,024	7,862,887	(145,669)	7,693,086	11,134,415
\$13,475,120	\$21,793,844	\$12,531,121	\$6,635,551	\$14,777,696	\$16,995,193

\$5,433,841	\$4,254,537	\$4,457,433	\$4,792,208	\$4,837,214	\$1,909,744
20,917	16,574	19,287	87,870	41,913	40,629
\$5,454,758	\$4,271,111	\$4,476,720	\$4,880,078	\$4,879,127	\$1,950,373
\$8,020,362	\$17,522,733	\$8,054,401	\$1,755,473	\$9,898,569	\$15,044,820
89,322,357	71,799,624	63,745,223	61,989,750	52,091,181	37,046,361
\$97,342,719	\$89,322,357	\$71,799,624	\$63,745,223	\$61,989,750	\$52,091,181

Schedule of Average Benefit Payments for New Benefit Recipients

Affiliated Local Plans

Year Retired	In Total
1/1/2018 - 12/31/2018	
Average monthly benefit	\$1,030
Average highest average salary	Not Available
Number of service retirees	202
1/1/2017 - 12/31/2017	
Average monthly benefit	\$1,004
Average highest average salary	Not Available
Number of service retirees	185
1/1/2016 - 12/31/2016	
Average monthly benefit	\$971
Average highest average salary	Not Available
Number of service retirees	169
1/1/2015 - 12/31/2015	
Average monthly benefit	\$878
Average highest average salary	Not Available
Number of service retirees	190
1/1/2014 - 12/31/2014	
Average monthly benefit	\$887
Average highest average salary	Not Available
Number of service retirees	197

Year Retired	In Total
1/1/2013 - 12/31/2013	
Average monthly benefit	\$834
Average highest average salary	Not Available
Number of service retirees	229
1/1/2012 - 12/31/2012	
Average monthly benefit	\$344
Average highest average salary	Not Available
Number of service retirees	157
1/1/2011 - 12/31/2011	
Average monthly benefit	\$456
Average highest average salary	Not Available
Number of service retirees	135
1/1/2010 - 12/31/2010	
Average monthly benefit	\$415
Average highest average salary	Not Available
Number of service retirees	172
1/1/2009 - 12/31/2009	
Average monthly benefit	\$429
Average highest average salary	Not Available
Number of service retirees	125

Note: Information on Years of Service is not available for the Affiliated Local Plans.

Schedule of Average Benefit Payments for New Benefit Recipients

Statewide Death & Disability Plan

Year Retired	In Total
1/1/2018 - 12/31/2018	
Average monthly benefit	\$2,478
Average final salary	\$6,408
Number of service retirees	77
1/1/2017 - 12/31/2017	
Average monthly benefit	\$2,401
Average final salary	\$6,400
Number of service retirees	92
1/1/2016 - 12/31/2016	
Average monthly benefit	\$2,239
Average final salary	\$6,148
Number of service retirees	68
1/1/2015 - 12/31/2015	
Average monthly benefit	\$2,478
Average final salary	\$5,787
Number of service retirees	52
1/1/2014 - 12/31/2014	
Average monthly benefit	\$2,336
Average highest average salary	\$5,829
Number of service retirees	67

Year Retired	In Total
1/1/2013 - 12/31/2013	
Average monthly benefit	\$2,413
Average highest average salary	\$5,761
Number of service retirees	56
1/1/2012 - 12/31/2012	
Average monthly benefit	\$2,160
Average highest average salary	\$5,748
Number of service retirees	56
1/1/2011 - 12/31/2011	
Average monthly benefit	\$2,078
Average highest average salary	\$5,362
Number of service retirees	46
1/1/2010 - 12/31/2010	
Average monthly benefit	\$2,277
Average highest average salary	\$5,804
Number of service retirees	50
1/1/2009 - 12/31/2009	
Average monthly benefit	\$2,372
Average highest average salary	Not Available
Number of service retirees	54

Note: Service is not taken into consideration in the benefit calculation for the Statewide Death & Disability Plan, therefore only totals are available.

Schedule of Average Benefit Payments for New Benefit Recipients

Defined Benefit System | Statewide Defined Benefit Plan

Year Retired	Years of Service Credit					
	0-10	10-15	15-20	20-25	25-30	30+
1/1/2018 - 12/31/2018						
Average monthly benefit	\$957	\$1,370	\$2,514	\$3,653	\$4,783	\$6,158
Average highest average salary	\$6,261	\$5,907	\$6,831	\$7,509	\$8,205	\$8,784
Number of service retirees	9	19	16	29	47	48
1/1/2017 - 12/31/2017						
Average monthly benefit	\$892	\$1,264	\$2,262	\$4,084	\$4,238	\$5,949
Average highest average salary	\$5,382	\$5,394	\$6,290	\$8,802	\$7,660	\$8,087
Number of service retirees	14	18	16	14	35	43
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	40
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	\$5,131
Average highest average salary	\$4,719	\$7,173	\$6,925	\$6,765	\$7,378	\$7,501
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						
Average monthly benefit	\$0	\$834	\$2,275	\$2,527	\$3,600	\$4,601
Average highest average salary	\$0	\$3,903	\$5,755	\$5,457	\$6,056	\$6,613
Number of service retirees	0	8	7	13	30	17

Schedule of Average Benefit Payments for New Benefit Recipients

Defined Benefit System | Statewide Hybrid Plan – Defined Benefit Component

Year Retired	Years of Service Credit					
	0-10	10-15	15-20	20-25	25-30	30+
1/1/2018 - 12/31/2018						
Average monthly benefit	\$819	\$998	\$0	\$0	\$4,032	\$5,458
Average highest average salary	\$6,778	\$6,975	\$0	\$0	\$11,821	\$9,072
Number of service retirees	2	1	0	0	1	3
1/1/2017 - 12/31/2017						
Average monthly benefit	\$0	\$0	\$0	\$3,684	\$4,001	\$5,338
Average highest average salary	\$0	\$0	\$0	\$8,951	\$6,778	\$8,211
Number of service retirees	0	0	0	1	1	1
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	4
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	0
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	0

Schedule of Average Benefit Payments for New Benefit Recipients

Defined Benefit System | Colorado Springs New Hire Pension Plan

Year Retired	Years of Service Credit					
	0-10	10-15	15-20	20-25	25-30	30+
1/1/2018 - 12/31/2018						
Average monthly benefit	\$0	\$1,658	\$2,101	\$3,409	\$4,412	\$6,808
Average highest average salary	\$0	\$6,115	\$6,550	\$7,224	\$7,062	\$8,889
Number of service retirees	0	5	3	7	4	4
1/1/2017 - 12/31/2017						
Average monthly benefit	\$0	\$1,590	\$2,571	\$3,790	\$4,427	\$5,563
Average highest average salary	\$0	\$5,672	\$6,270	\$7,347	\$7,019	\$7,651
Number of service retirees	0	4	3	5	22	7
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	\$6,001	\$6,088	\$6,824	\$7,305	\$7,108
Number of service retirees	0	3	2	10	25	9
1/1/2015 - 12/31/2015						
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

Principal Participating Employers

Affiliated Local Plans

Employer	As of 12/31/2018			As of 12/31/2009		
	Rank	Covered Active Members	Percentage of Total Plan	Rank	Covered Active Members	Percentage of Total Plan
Evergreen Fire Protection District (Volunteer)	1	94	3.33%	5	64	1.61%
Durango Fire Protection District (Volunteer)	2	65	2.30%	1	92	2.31%
Telluride Fire Protection District (Volunteer)	3	59	2.09%	6	63	1.58%
Foothills Fire & Rescue (Volunteer)	4	53	1.88%	10	48	1.20%
Boulder Mountain Fire Protection District (Volunteer)	5	49	1.74%	N/A*	N/A*	N/A*
East Grand Fire Protection District #4 (Volunteer)	6	41	1.45%	N/A*	N/A*	N/A*
Stonewall Fire Protection District (Volunteer)	7	38	1.35%	N/A*	N/A*	N/A*
Crested Butte Fire Protection District (Volunteer)	8	37	1.31%	N/A*	N/A*	N/A*
Florence Fire Protection District (Volunteer)	8	37	1.31%	7	57	1.43%
Fort Morgan Rural Fire Protection District (Volunteer)	8	37	1.31%	N/A*	N/A*	N/A*
Northwest Conejos County Fire Protection District (Volunteer)	8	37	1.31%	N/A*	N/A*	N/A*
Poudre Canyon Fire Protection District (Volunteer)	8	37	1.31%	N/A*	N/A*	N/A*
Coal Creek Canyon Fire Protection District (Volunteer)	9	36	1.28%	N/A*	N/A*	N/A*
Lefthand Volunteer Fire Department (Volunteer)	9	36	1.28%	N/A*	N/A*	N/A*
Norwood Fire Protection District (Volunteer)	10	35	1.24%	N/A*	N/A*	N/A*
Golden Volunteer Fire Department	N/A**	N/A**	N/A**	2	88	2.21%
South Adams County Fire Protection District (Volunteer)	N/A**	N/A**	N/A**	3	66	1.66%
Bennett Fire Protection District (Volunteer)	N/A**	N/A**	N/A**	4	65	1.63%
Carbondale and Rural Fire Protection District (Volunteer)	N/A**	N/A**	N/A**	8	56	1.41%
Larkspur Fire Protection District (Volunteer)	N/A**	N/A**	N/A**	9	55	1.38%

Note: Many of the plans in this group are closed plans and do not have active members.

*In 2009, this employer did not rank in the Top Ten.

**In 2018, this employer did not rank in the Top Ten.

Principal Participating Employers

Statewide Death & Disability

Employer	As of 12/31/2018			As of 12/31/2009		
	Rank	Covered Active Members	Percentage of Total Plan	Rank	Covered Active Members	Percentage of Total Plan
Denver Police	1	1,458	11.44%	1	1,427	12.88%
Denver Fire	2	910	7.14%	2	842	7.60%
Aurora Police	3	710	5.57%	3	632	5.71%
Colorado Springs Police	4	679	5.33%	4	612	5.52%
South Metro Fire Rescue	5	551	4.32%	7	324	2.92%
Aurora Fire	6	416	3.26%	8	294	2.65%
Colorado Springs Fire	7	399	3.13%	5	384	3.47%
West Metro Fire Protection District	8	325	2.55%	6	330	2.98%
Fort Collins Police	9	249	1.95%	10	189	1.71%
Thornton Police	10	231	1.81%	N/A*	N/A*	N/A*
Pueblo Police	N/A**	N/A**	N/A**	9	195	1.79%

*In 2009, this employer did not rank in the Top Ten.

**In 2018, this employer did not rank in the Top Ten.

Defined Benefit System | Statewide Defined Benefit Plan

Employer	As of 12/31/2018			As of 12/31/2009		
	Rank	Covered Active Members	Percentage of Total Plan	Rank	Covered Active Members	Percentage of Total Plan
Denver Police	1	1,608	16.72%	1	1,459	25.72%
Denver Fire	2	1,021	10.62%	2	843	14.86%
Colorado Springs Police	3	467	4.86%	5	111	1.96%
Aurora Fire	4	416	4.33%	N/A*	N/A*	N/A*
Colorado Springs Fire	5	333	3.46%	8	95	1.67%
Pueblo Police	6	241	2.51%	3	185	3.35%
Thornton Police	7	213	2.22%	N/A*	N/A*	N/A*
West Metro Fire Protection District	8	207	2.15%	9	93	1.64%
South Metro Fire Rescue	9	195	2.03%	N/A*	N/A*	N/A*
Westminster Police	10	173	1.80%	N/A*	N/A*	N/A*
Pueblo Fire	N/A**	N/A**	N/A**	4	127	2.24%
Westminster Fire	N/A**	N/A**	N/A**	5	111	1.96%
Littleton Fire	N/A**	N/A**	N/A**	6	104	1.83%
Arvada Fire Protection District	N/A**	N/A**	N/A**	7	100	1.76%
Union Colony Fire Rescue	N/A**	N/A**	N/A**	93	9	1.64%
North Metro Fire Rescue	N/A**	N/A**	N/A**	90	10	1.59%

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**In 2018, this employer did not rank in the Top Ten.

Principal Participating Employers

Defined Benefit System | Statewide Hybrid Plan

Employer	As of 12/31/2018			As of 12/31/2009		
	Rank	Covered Active Members	Percentage of Total Plan	Rank	Covered Active Members	Percentage of Total Plan
West Metro Fire Protection District	1	150	38.86%	1	261	62.00%
Aurora Fire	2	46	11.92%	N/A*	N/A*	N/A*
Evans Police	3	37	9.59%	3	27	6.41%
Broomfield Police	4	21	5.44%	N/A*	N/A*	N/A*
Westminster Police	5	20	5.18%	N/A*	N/A*	N/A*
South Metro Fire Rescue	6	17	4.40%	N/A*	N/A*	N/A*
Thornton Police	7	12	3.11%	N/A*	N/A*	N/A*
Westminster Fire	8	10	2.59%	4	21	4.99%
Thornton Fire	9	8	2.07%	N/A*	N/A*	N/A*
Lafayette Police	10	7	1.81%	7	10	2.38%
Littleton Fire	N/A**	N/A**	N/A**	2	30	7.13%
Canon City Police	N/A**	N/A**	N/A**	5	19	4.51%
North Metro Fire Rescue	N/A**	N/A**	N/A**	6	16	3.80%
Lake Dillon Fire Protection District	N/A**	N/A**	N/A**	8	8	1.90%
Snowmass Wildcat Fire Protection District	N/A**	N/A**	N/A**	9	6	1.43%
Brighton Police	N/A**	N/A**	N/A**	10	4	0.95%
Trinidad Fire	N/A**	N/A**	N/A**	10	4	0.95%

*In 2009, this employer did not rank in the Top Ten.

**In 2018, this employer did not rank in the Top Ten.

Principal Participating Employers

Fire & Police Members' Statewide Money Purchase Plan

Employer	As of 12/31/2018			As of 12/31/2009		
	Rank	Covered Active Members	Percentage of Total Plan	Rank	Covered Active Members	Percentage of Total Plan
Colorado River Fire Protection District	1	28	17.61%	N/A*	N/A*	N/A*
Elizabeth Fire Protection District	2	17	10.69%	3	15	16.48%
Grand Valley Fire Protection District	3	16	10.06%	N/A*	N/A*	N/A*
Windsor Severance Fire Protection District	3	16	10.06%	N/A*	N/A*	N/A*
Eaton Fire Protection District	4	11	6.92%	2	17	18.68%
Colorado River Fire Protection District	5	8	5.03%	N/A*	N/A*	N/A*
Upper Pine River Fire Protection District	5	8	5.03%	N/A*	N/A*	N/A*
Ault Fire Protection District	6	6	3.77%	N/A*	N/A*	N/A*
Gateway-Unaweepe Fire Protection District	6	6	3.77%	N/A*	N/A*	N/A*
Mountain Village Police	7	5	3.14%	4	7	7.69%
Sable Altura Fire Protection District	8	4	2.52%	N/A*	N/A*	N/A*
West Routt Fire Protection District	8	4	2.52%	6	2	2.20%
Jefferson-Como Fire Protection District	9	3	1.89%	N/A*	N/A*	N/A*
Fairmount Fire Protection District	10	2	1.26%	N/A*	N/A*	N/A*
Rifle Fire Protection District	N/A**	N/A**	N/A**	1	25	27.47%
Central City Police	N/A**	N/A**	N/A**	5	4	4.40%

*In 2009, this employer did not rank in the Top Ten.

**In 2018, this employer did not rank in the Top Ten.

Defined Benefit System | Colorado Springs New Hire Pension Plan

Employer	As of 12/31/2018			As of 12/31/2009		
	Rank	Covered Active Members	Percentage of Total Plan	Rank	Covered Active Members	Percentage of Total Plan
Colorado Springs Police	1	329	71.83%	1	512	63.92%
Colorado Springs Fire	2	129	28.17%	2	289	36.08%

Employers of Affiliated Local Volunteer Firefighters Plans

Adams County (North Washington) FPD*	Elbert FPD & Rescue	Lake City Area FPD	Pleasant View
Alamosa County FPD	Elizabeth FPD*	Lake Dillon FPD*	Metro Fire District
Alamosa Fire	Elk Creek FPD	Lake George FPD	Poudre Canyon FPD
Allenspark FPD	Englewood Fire*	Lamar Fire	Poudre Fire Authority*
Aspen FPD	Evans FPD	Larkspur FPD	Rangely Rural FPD
Ault FPD	Evergreen FPD	Lefthand FPD	Rattlesnake FPD
Basalt & Rural FPD	Falcon FPD*	Lewis-Arriola FPD	Red Feather Lakes FPD
Bennett FPD #7	Federal Heights Fire	Limon Area FPD	Red White & Blue FPD*
Berthoud FPD*	Fisher's Peak FPD	Livermore FPD	Ridgway FPD
Big Sandy FPD	Florence FPD	Log Hill Mesa FPD	Rio Blanco FPD
Big Thompson Canyon Fire	Foothills Fire & Rescue	Loveland & Rural	Rocky Ford Fire
Black Forest Fire Rescue	Fort Lewis Mesa FPD	Consolidated VFD*	Rocky Mountain VFD*
Blanca Fire*	Fort Morgan Fire	Lower Valley FPD	Sable Altura FPD
Boone Fire	Fort Morgan Rural FPD	Lyons FPD	Sheridan Fire*
Boulder Mountain FPD	Franktown FPD	Mancos FPD	Silverton San Juan FRA
Boulder Rural FPD	Frederick Firestone FPD*	Manitou Springs VFD	South Adams County FPD
Brighton VFD*	Galeton FPD	Manzanola Rural FPD	South Arkansas FPD*
Brush Combined Fire	Genesee FPD	Montrose FPD	South Conejos FPD
Buena Vista Fire	Glacier View FPD	Mountain View FPD	South Metro Fire Rescue*
Calhan FPD	Glendale Fire*	Nederland FPD	Southwest Washington
Cañon City Area FPD	Glenwood Springs Fire	New Raymer/Stoneham FPD	County FPD
Carbondale & Rural FPD	Golden Fire	North Fork FPD	Springfield Fire
Cascade FPD	Golden Gate FPD	North Routt County Fire	Steamboat Springs VFD
Castle Rock Fire	Grand FPD #1	Northeast Teller County FPD	Sterling Fire
Central City VFD	Grand Lake FPD	North-West FPD	Stonewall FPD
Central Orchard Mesa FPD	Grand Valley FPD	Northwest Conejos FPD	Stratton FPD
Cheyenne County FPD #1	Green Mountain	Norwood FPD	Sugar City Fire
Clear Creek Fire Authority	Falls-Chipita Park FPD	Nucla-Naturita FPD	Sugarloaf FPD
Clifton FPD	Gypsum FPD	Nunn FPD	Telluride FPD
Coal Creek Canyon FPD	Hartsel FPD	Oak Creek FPD	Timberline FPD
Colorado River	Haxtun Fire	Olathe FPD	Walsh VFD
(Burning Mountains) FPD*	Hillrose Rural FPD	Olney Springs Fire	Wellington FPD
Colorado River (Rifle) FPD	Holyoke Fire	Ordway Fire	West Cheyenne FPD
Crested Butte FPD	Holyoke FPD	Ouray VFD	West Douglas County FPD
Cripple Creek Fire*	Hot Sulphur	Palisade VFD	West Metro FPD*
Crowley VFD	Springs/Parshall FPD	Palmer Lake Fire	West Routt FPD
Crystal Lakes FPD	Hygiene FPD	Parker FPD*	Westminster VFD*
Divide VFD	Indian Hills FPD	Pawnee FPD	Wet Mountain FPD
Donald Wescott FPD	Inter-Canyon FPD	Peetz FPD	Wiggins Rural FPD
Dove Creek FPD	Jackson 105 FPD	Peyton FPD	Wiley Rural FPD
Durango FPD	Jefferson-Como FPD	Pinewood Springs VFD	Windsor Severance FPD
Eads Fire	Kiowa FPD	Plateau Valley FPD	Yampa FPD
East Grand FPD #4	Kremmling FPD	Platte Canyon FPD	Yuma Fire
Eaton FPD	La Junta Fire	Platte Valley FPD	
Eckley Fire	La Salle FPD	Platteville/Gilcrest FPD	
	Lafayette Fire*		

* No active members at December 31, 2018

Employers

Employers of Defined Benefit System | Colorado Springs New Hire Pension Plan

Colorado Springs Fire

Colorado Springs Police

Employers of Affiliated Local "Old Hire" Plans

Adams County
(North Washington) FPD*

Aurora Fire*

Aurora Police

Bancroft FPD*

Cañon City Area FPD*

Cedaredge Police*

Cherry Hills FPD*

Colorado Springs Fire*

Colorado Springs Police*

Cortez Police*

Del Norte 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*

Haxtun Police*

La Junta Fire*

La Junta Police*

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*

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

Frederick Police

Haxtun Police

Holyoke Police

Johnstown Police

Kersey Police

Kremmling Police

Monument Police

Springfield Police

Windsor Police

* No active members at December 31, 2018

Employers Participating in the FPPA Multi-Employer Deferred Compensation Plan

Adams County FPD	Durango FPD	Ignacio Police	Poudre Fire Authority
Alamosa Police*	East Grand FPD #4	Inter-Canyon FPD	Pueblo Fire
Arvada FPD	Eaton FPD	Jackson 105 FPD*	Pueblo Police
Arvada Police	Edgewater Police	Jefferson-Como FPD	Pueblo Rural FPD
Ault FPD*	Elizabeth FPD	Kiowa FPD	Red White & Blue FPD
Ault Police	Elk Creek FPD	Kremmling FPD	Roaring Fork FRA
Aurora Fire	Estes Valley FPD	La Jara Police*	Rocky Mountain FPD
Aurora Police	Fairmount FPD	La Salle FPD	Sable Altura FPD*
Bayfield Police	Falcon FPD	Lakeside Police*	Salida Fire
Bennett FPD # 7	Federal Heights Fire	Larkspur FPD	Salida Police
Berthoud FPD	Federal Heights Police	Lefthand FPD*	Security FPD
Black Forest Fire Rescue	Firestone Police	Lochbuie Police	South Adams County FPD
Boulder Rural FPD	Foothills Fire & Rescue	Lone Tree Police	South Fork FPD
Brighton Police	Fort Collins Fire*	Los Pinos FPD	Southeast Weld FPD
Broadmoor FPD	Fort Collins Police	Loveland FRA	Southern Park County FPD*
Brush Police	Fort Lewis-Mesa FPD*	Loveland Police	Sterling Fire
Buena Vista Police	Fort Lupton FPD	Lower Valley FPD*	Sterling Police
Cañon City Area FPD	FPPA Employees	Lyons FPD*	Strasburg FPD #8*
Cañon City Police	Frederick-Firestone FPD	Manitou Springs Fire	Stratmoor Hills FPD
Carbondale & Rural FPD	Front Range Fire Rescue FPD	Manitou Springs Police	Stratton Police*
Castle Rock Fire	Genesee FPD	Montrose FPD	Summit Fire & EMS Authority
Center Police*	Glendale Police*	Mountain View FPD	Telluride FPD
Chaffee County FPD	Granada Police*	Mountain Village Police	Timberline FPD
Cimarron Hills FPD	Grand FPD #1	Nederland FPD	Tri-Lakes Monument FPD
Clear Creek Fire Authority*	Grand Lake FPD	North Metro Fire Rescue	Trinidad Fire
Clifton FPD*	Grand Valley FPD	Northeast Teller County FPD	Trinidad Police*
Coal Creek Canyon FPD	Greater Eagle FPD*	North-West FPD	Upper Pine River FPD
Colorado River FPD	Greeley Fire	Pagosa FPD	Vail Fire
Colorado Springs Fire	Greeley Police	Palisade Fire*	Vail Police*
Colorado Springs Police	Green Mtn	Palisade Police*	Wellington FPD
Columbine Valley Police*	Falls-Chipita Park FPD*	Plateau Valley FPD*	West Metro FPD
Cortez FPD	Gypsum FPD	Platte Canyon FPD	West Routt FPD
Crested Butte FPD	Hartsel FPD	Platte Valley FPD	Wiggins Police*
Cripple Creek Fire	Holyoke Police	Platteville Police	Windsor Severance FPD
Debeque FPD	Hudson FPD	Platteville-Gilcrest FPD	Wray Police
Debeque Police	Hugo Police*	Pleasant View	Yuma Police
Donald Wescott FPD	Idaho Springs Police*	Metro Fire District	

* No active members at December 31, 2018

Employers

Employers of the Defined Benefit System | Statewide Defined Benefit Plan

Adams County FPD	Donald Wescott FPD	Jackson 105 FPD*	Plateau Valley FPD
Aguilar Police	Durango FPD	Jefferson-Como FPD	Platte Canyon FPD
Alma Police	Eads Police*	Kiowa FPD	Platte Valley FPD
Antonito Police	East Grand FPD #4	Kremmling FPD	Platteville Police
Arvada FPD	Eaton FPD	La Jara Police	Platteville-Gilcrest FPD
Aspen FPD	Edgewater Police	La Salle FPD	Pleasant View
Ault FPD	Elizabeth Police	La Salle Police	Metro Fire District
Ault Police	Elk Creek FPD	La Veta Police	Pueblo Fire
Aurora Fire	Empire Police	Lafayette Fire	Pueblo Police
Basalt Police	Englewood Police	Lafayette Police	Pueblo Rural FPD
Bayfield Police	Erie Police	Lake George FPD	Pueblo West Metro FPD
Bennett FPD #7	Estes Valley FPD	Lakeside Police	Rattlesnake FPD
Berthoud FPD	Evans FPD	Lamar Fire*	Red White & Blue FPD
Beulah Fire Protection & Ambulance District	Evans Police	Larkspur FPD	Rio Blanco FPD*
Big Sandy FPD	Evergreen FPD	Las Animas Police*	Roaring Fork FRA
Black Forest Fire Rescue	Fairmount FPD	Leadville Fire	Rocky Mountain FPD
Black Hawk Fire	Fairplay Marshalls Police	Leadville Police	Rye FPD
Blanca Police	Falcon FPD	Lefthand FPD	Sable Altura FPD
Boulder Mountain FPD	Federal Heights Fire	Littleton Fire	Salida Fire
Boulder Rural FPD	Federal Heights Police	Littleton Police	Salida Police
Bow Mar Police*	Firestone Police	Lochbuie Police	San Luis Police*
Briggsdale FPD	Florence Police	Log Lane Village Police	Sanford Police
Brighton (Greater) FPD	Florissant FPD*	Lone Tree Police	Security FPD
Brighton Police	Foothills Fire & Rescue	Los Pinos FPD	Severance Police
Broadmoor FPD	Fort Lewis-Mesa FPD	Lower Valley FPD	Sheridan Police
Broomfield Police	Fort Lupton FPD	Lyons FPD	Silt Police
Brush Police	Fountain Fire	Manassa Police*	South Adams County FPD
Buena Vista Fire	Fountain Police	Manitou Springs Fire	South Fork FPD
Buena Vista Police	Fowler Police	Manitou Springs Police	South Fork Police
Byers FPD #9	Franktown FPD	Mead Police	South Metro Fire Rescue
Cañon City Police	Frederick Firestone FPD	Milliken Police	Southeast Weld FPD
Carbondale & Rural FPD	Frisco Police	Minturn Fire*	Southern Park County FPD
Castle Rock Fire	Front Range Fire Rescue FPD	Montrose FPD	Steamboat Springs Fire
Center Police	Galeton FPD	Montrose Police	Sterling Fire
Central City Fire*	Garden City Police	Mountain View FPD	Sterling Police
Chaffee County FPD	Gateway-Unaweep FPD	Mountain View Police	Strasburg FPD #8
Cimarron Hills FPD	Genesee FPD	Nederland FPD	Stratmoor Hills FPD
Clear Creek Fire Authority	Georgetown Police	North Fork Fire	Stratton Police*
Clifton FPD	Gilcrest Police*	North Metro Fire Rescue	Summit Fire & EMS Authority
Coal Creek Canyon FPD	Granada Police*	North Routt FPD	Telluride FPD
Collbran Marshalls*	Grand FPD #1	Northeast Teller County FPD	Thornton Fire
Colorado Centre	Grand Junction Fire	North-West FPD	Thornton Police
Metro District Fire*	Grand Lake FPD	Nunn Police	Timberline FPD
Colorado River FPD	Grand Valley FPD	Oak Creek FPD	Tri Lakes Monument FPD
Colorado Springs Fire	Greater Eagle FPD	Oak Creek Police	Trinidad Fire
Colorado Springs Police	Greeley Fire	Olathe FPD	Upper Pine River FPD
Columbine Valley Police	Green Mountain	Olathe Police	Wellington FPD
Cortez FPD	Falls-Chipita Park FPD*	Pagosa FPD	West Douglas County FPD
Crested Butte FPD	Gypsum FPD	Pagosa Springs Police	West Metro FPD
Cripple Creek Fire	Hartsel FPD	Palisade Fire	West Routt FPD
Dacono Police	Hudson FPD	Palisade Police	Westminster Fire
Debeque FPD	Hugo Police	Palmer Lake Fire	Westminster Police
Denver Fire	Hygiene FPD*	Palmer Lake Police	Wiggins Police
Denver Police	Idaho Springs Police	Paonia Police	Windsor-Severance FPD
Dillon Police	Ignacio Police	Parachute Police	Wray Police
Dinosaur Police	Indian Hills FPD	Parker Police	Yuma Police
	Inter-Canyon FPD	Peyton FPD	

* No active members at December 31, 2018

Employers of the Defined Benefit System | Statewide Hybrid Plan

Arvada FPD*	Englewood Police	Grand Junction Fire	Security FPD*
Aurora Fire	Evans Police	Lafayette Police	Sheridan Police
Basalt Police	Federal Heights Fire*	Littleton Police	Sterling Fire*
Brighton Police*	Federal Heights Police*	Littleton Fire	Summit Fire & EMS Authority
Broomfield Police	Florence Police*	Milliken Police	Thornton Fire
Buena Vista Police	Foothills Fire and Rescue	Montrose FPD*	Thornton Police
Cañon City Police	Fountain Fire	Montrose Police*	Trinidad Fire
Carbondale & Rural FPD	Fountain Police	North Metro Fire Rescue	Upper Pine River FPD
Dacono Police*	Granada Police	Oak Creek Police	West Metro FPD
Dillon Police*	Grand FPD #1*	Roaring Fork FRA	Westminster Fire
Edgewater Police	Greater Eagle FPD*	Sable Altura FPD*	Westminster Police

Employers of the Statewide Money Purchase Plan

Ault FPD	Denver Police*	Inter-Canyon FPD	Platteville-Gilcrest FPD
Bayfield Police	Eaton FPD	Jefferson-Como FPD	Rocky Mountain FPD
Black Hawk Fire*	Elizabeth FPD	Kiowa FPD*	Sable Altura FPD
Briggsdale FPD*	Elizabeth Police	Kremmling FPD	Salida Fire*
Brighton (Greater) FPD	Elk Creek FPD*	Las Animas Police*	Summit Fire & EMS Authority
Central City Fire	Fairmont FPD	Leadville Police	Telluride FPD
Central City Police*	Falcon FPD	Louviers FPD*	Timberline FPD
Cimarron Hills FPD*	Federal Heights Fire	Manassa Police*	Upper Pine River FPD
Clear Creek Fire Authority	Galeton FPD*	Mountain View Police	West Routt FPD
Colorado Centre	Gateway-Unaweepe FPD	Mountain Village Police	Windsor Severance FPD
Metro District Fire	Genesee FPD*	Nederland FPD	Wray Police*
Colorado River FPD	Grand Valley FPD	Pagosa FPD	
Colorado Springs Police	Greater Eagle FPD	Platteville Police*	

Employers of Affiliated Statewide Death & Disability Supplemental Social Security Plan

Debeque Police	Holyoke Police	Kersey Police	Springfield Police
Haxtun Police	Johnstown Police	Monument Police	

* No active members at December 31, 2018

Employers

Employers with Active Members in the Statewide Death & Disability Plan

Adams County FPD	Columbine Valley Police	Gateway-Unaweeep FPD	Loveland FRA
Aguilar Police	Commerce City Police	Genesee FPD	Loveland Police
Alamosa Police	Cortez FPD	Georgetown Police	Lower Valley FPD
Alma Police	Cortez Police	Glendale Police	Lyons FPD
Antonito Police	Crested Butte FPD	Glenwood Springs Fire	Manitou Springs Fire
Arvada FPD	Cripple Creek Fire	Glenwood Springs Police	Manitou Springs Police
Arvada Police	Dacono Police	Golden Fire	Mead Police
Aspen FPD	Debeque FPD	Golden Police	Milliken Police
Aspen Police	Del Norte Police	Granada Police	Monte Vista Police
Ault FPD	Delta Police	Grand FPD #1	Montrose FPD
Ault Police	Denver Fire	Grand Junction Fire	Montrose Police
Aurora Fire	Denver Police	Grand Junction Police	Mountain View FPD
Aurora Police	Dillon Police	Grand Lake FPD	Mountain View Police
Avon Police	Dinosaur Police	Grand Valley FPD	Mountain Village Police
Basalt Police	Donald Wescott FPD	Greater Eagle FPD	Nederland FPD
Bayfield Police	Durango FPD	Greeley Fire	North Fork FPD
Bennett FPD #7	Durango Police	Greeley Police	North Metro Fire Rescue
Berthoud FPD	Eagle River FPD	Green Mountain	North Routt FPD
Beulah Fire Protection & Ambulance District	East Grand FPD #4	Falls-Chipita Park FPD	Northeast Teller County FPD
Big Sandy FPD	Eaton FPD	Greenwood Village Police	Northglenn Police
Black Forest Fire Rescue	Edgewater Police	Gypsum FPD	North-West FPD
Black Hawk Fire	Elizabeth FPD	Hartsel FPD	Nunn Police
Blanca Police	Elizabeth Police	Hudson FPD	Oak Creek FPD
Boulder Fire	Elk Creek FPD	Hugo Police	Oak Creek Police
Boulder Mountain FPD	Empire Police	Idaho Springs Police	Olathe Police
Boulder Police	Englewood Police	Ignacio Police	Pagosa FPD
Boulder Rural FPD	Erie Police	Indian Hills FPD	Pagosa Springs Police
Briggsdale FPD	Estes Valley FPD	Inter-Canyon FPD	Palisade Fire
Brighton (Greater) FPD	Evans FPD	Jefferson-Como FPD	Palisade Police
Brighton Police	Evans Police	Kiowa FPD	Palmer Lake Fire
Broadmoor FPD	Evergreen FPD	Kremmling FPD	Palmer Lake Police
Broomfield Police	Fairmount FPD	La Jara Police	Paonia Police
Brush Police	Fairplay Marshalls Police	La Junta Fire	Parachute Police
Buena Vista Fire	Falcon FPD	La Junta Police	Parker Police
Buena Vista Police	Federal Heights Fire	La Salle FPD	Peyton FPD
Byers FPD #9	Federal Heights Police	La Salle Police	Plateau Valley FPD
Canon City Area FPD	Firestone Police	La Veta Police	Platte Canyon FPD
Canon City Police	Florence Police	Lafayette Fire	Platte Valley FPD
Carbondale & Rural FPD	Foothills Fire & Rescue	Lafayette Police	Platteville Police
Castle Rock Fire	Fort Collins Fire	Lake George FPD	Platteville-Gilcrest FPD
Center Police	Fort Collins Police	Lakeside Police	Pleasant View
Central City Fire	Fort Lewis-Mesa FPD	Lamar Fire	Metro Fire District
Chaffee County FPD	Fort Lupton FPD	Lamar Police	Poudre Fire Authority
Cherry Hills Village Police	Fort Lupton Police	Larkspur FPD	Pueblo Fire
Cimarron Hills FPD	Fort Morgan Police	Leadville Fire	Pueblo Police
Clear Creek Fire Authority	Fountain Fire	Leadville Police	Pueblo Rural FPD
Clifton FPD	Fountain Police	Lefthand FPD	Pueblo West Metro Fire
Coal Creek Canyon FPD	Fowler Police	Littleton Fire	Rangely Police
Collbran Marshals	Franktown FPD	Littleton Police	Rattlesnake FPD
Colorado Centre	Frederick Firestone FPD	Lochbuie Police	Red White & Blue FPD
Metro District Fire	Frisco Police	Log Lane Village Police	Rifle Police
Colorado River FPD	Front Range Fire Rescue FPD	Lone Tree Police	Roaring Fork FRA
Colorado Springs Fire	Fruita Police	Longmont Fire	Rocky Ford Fire
Colorado Springs Police	Galeton FPD	Longmont Police	Rocky Ford Police
	Garden City Police	Los Pinos FPD	Rocky Mountain FPD

Employers with Active Members in the Statewide Death & Disability Plan

Rye FPD	South Fork Police	Telluride Police	West Metro FPD
Sable Altura FPD	South Metro Fire Rescue	Thornton Fire	West Routt FPD
Salida Fire	Southeast Weld FPD	Thornton Police	Westminster Fire
Salida Police	Southern Park County FPD	Timberline FPD	Wheat Ridge Police
Sanford Police	Steamboat Springs Fire	Tri-Lakes Monument FPD	Wiggins Police
Security FPD	Steamboat Springs Police	Trinidad Fire	Windsor Severance FPD
Severance Police	Sterling Fire	Trinidad Police	Woodland Park Police
Sheridan Police	Sterling Police	Upper Pine River FPD	Wray Police
Silt Police	Strasburg FPD #8	Vail Fire	Yuma Police
Snowmass Village Police	Stratmoor Hills FPD	Vail Police	
South Adams County FPD	Summit Fire & EMS Authority	Wellington FPD	
South Fork FPD	Telluride FPD	West Douglas County FPD	

Benefit and Refund Deductions from Fiduciary Net Position by Type

Affiliated Local Plans

Type of Benefit	2018	2017	2016	2015
Age and service benefits:				
Retirees & Survivors	\$171,209,386	\$168,478,600	\$168,257,048	\$165,621,180
Disability	0	0	0	0
Total Benefits	\$171,209,386	\$168,478,600	\$168,257,048	\$165,621,180

Type of Refund

Contributions (including interest earned)	\$1,103,109	\$140,874	\$918,003	\$201,899
Total Refunds	\$1,103,109	\$140,874	\$918,003	\$201,899

Statewide Death & Disability Plan

Type of Benefit	2018	2017	2016	2015
Age and service benefits:				
Retirees & Survivors	\$0	\$0	\$0	\$0
Disability	30,235,382	28,157,074	26,128,642	24,096,515
Total Benefits	\$30,235,382	\$28,157,074	\$26,128,642	\$24,096,515

Type of Refund

Contributions (including interest earned)	\$38,107	\$0	\$59,172	\$0
Total Refunds	\$38,107	\$0	\$59,172	\$0

Defined Benefit System | Statewide Defined Benefit Plan

Type of Benefit	2018	2017	2016	2015
Age and service benefits:				
Retirees & Survivors	\$77,206,066	\$65,977,013	\$60,019,888	\$53,129,403
Disability	0	0	0	0
Total Benefits	\$77,206,066	\$65,977,013	\$60,019,888	\$53,129,403

Type of Refund

Contributions (including interest earned)	\$3,406,375	\$2,187,599	\$1,813,180	\$1,763,962
Total Refunds	\$3,406,375	\$2,187,599	\$1,813,180	\$1,763,962

Benefit and Refund Deductions from Fiduciary Net Position by Type

2014	2013	2012	2011	2010	2009
\$164,721,406	\$165,121,187	\$165,552,566	\$162,511,376	\$164,220,145	\$157,644,750
0	0	0	0	0	0
\$164,721,406	\$165,121,187	\$165,552,566	\$162,511,376	\$164,220,145	\$157,644,750

\$521,475	\$848,221	\$315,017	\$584,749	\$1,823,003	\$5,045,932
\$521,475	\$848,221	\$315,017	\$584,749	\$1,823,003	\$5,045,932

2014	2013	2012	2011	2010	2009
\$0	\$0	\$0	\$0	\$0	\$0
22,707,843	21,018,988	19,482,152	18,217,570	17,376,644	15,995,412
\$22,707,843	\$21,018,988	\$19,482,152	\$18,217,570	\$17,376,644	\$15,995,412

\$12,647	\$32,919	\$0	\$47,192	\$58,440	\$14,242
\$12,647	\$32,919	\$0	\$47,192	\$58,440	\$14,242

2014	2013	2012	2011	2010	2009
\$47,655,798	\$42,442,562	\$31,959,003	\$28,284,899	\$25,448,990	\$13,547,142
0	0	0	0	0	0
\$47,655,798	\$42,442,562	\$31,959,003	\$28,284,899	\$25,448,990	\$13,547,142

\$1,848,698	\$2,796,217	\$1,616,336	\$1,882,112	\$1,493,913	\$1,927,732
\$1,848,698	\$2,796,217	\$1,616,336	\$1,882,112	\$1,493,913	\$1,927,732

Benefit and Refund Deductions from Fiduciary Net Position by Type

Defined Benefit System | Statewide Hybrid Plan - Defined Benefit Component

Type of Benefit	2018	2017	2016	2015
Age and service benefits:				
Retirees & Survivors	\$1,771,264	\$1,493,664	\$1,191,766	\$953,099
Disability	0	0	0	0
Total Benefits	\$1,771,264	\$1,493,664	\$1,191,766	\$953,099

Type of Refund				
Contributions (including interest earned)	\$326,973	\$27,870	\$17,151	\$18,365
Total Refunds	\$326,973	\$27,870	\$17,151	\$18,365

Defined Benefit System | Colorado Springs New Hire Pension Plan – Combined Police & Fire

Type of Benefit	2018	2017	2016	2015
Age and service benefits:				
Retirees & Survivors	\$22,275,545	\$20,867,505	\$18,988,354	\$16,350,538
Disability	0	0	0	0
Total Benefits	\$22,275,545	\$20,867,505	\$18,988,354	\$16,350,538

Type of Refund				
Contributions (including interest earned)	\$0	\$177,858	\$250,586	\$99,734
Total Refunds	\$0	\$177,858	\$250,586	\$99,734

Benefit and Refund Deductions from Fiduciary Net Position by Type



2014	2013	2012	2011	2010	2009
\$752,330	\$525,814	\$449,818	\$317,469	\$236,346	\$282,930
0	0	0	0	0	0
\$752,330	\$525,814	\$449,818	\$317,469	\$236,346	\$282,930

\$35,373	\$36,845	\$3,097	\$14,990	\$5,069	\$232,027
\$35,373	\$36,845	\$3,097	\$14,990	\$5,069	\$232,027



2014	2013	2012	2011	2010	2009
\$14,334,086	\$13,463,745	\$12,832,278	\$11,920,608	\$10,259,279	\$8,754,606
0	0	0	0	0	0
\$14,334,086	\$13,463,745	\$12,832,278	\$11,920,608	\$10,259,279	\$8,754,606

\$443,707	\$297,196	\$353,856	\$479,250	\$384,736	\$0
\$443,707	\$297,196	\$353,856	\$479,250	\$384,736	\$0

Benefit and Refund Deductions from Fiduciary Net Position by Type

Fire & Police Members' Statewide Money Purchase Plan

Type of Benefit	2018	2017	2016	2015
Age and service benefits:	Age and Service benefits are not calculated for this plan.			
Type of Refund				
Contributions (including interest earned)	\$1,775,098	\$304,189	\$247,528	\$245,503
Total Refunds	\$1,775,098	\$304,189	\$247,528	\$245,503

Self-Directed Assets for Affiliated Local Plans and Defined Benefit System Plans

Type of Benefit	2018	2017	2016	2015
Age and service benefits:	Age and Service benefits are not calculated for this plan.			
Type of Refund				
Contributions (including interest earned)	\$121,239,015	\$127,314,764	\$41,738,925	\$62,813,697
Total Refunds	\$121,239,015	\$127,314,764	\$41,738,925	\$62,813,697

IRC 457 Deferred Compensation Plan

Type of Benefit	2018	2017	2016	2015
Age and service benefits:	Age and Service benefits are not calculated for this plan.			
Type of Refund				
Contributions (including interest earned)	\$6,823,413	\$5,463,548	\$7,220,110	\$5,136,008
Total Refunds	\$6,823,413	\$5,463,548	\$7,220,110	\$5,136,008

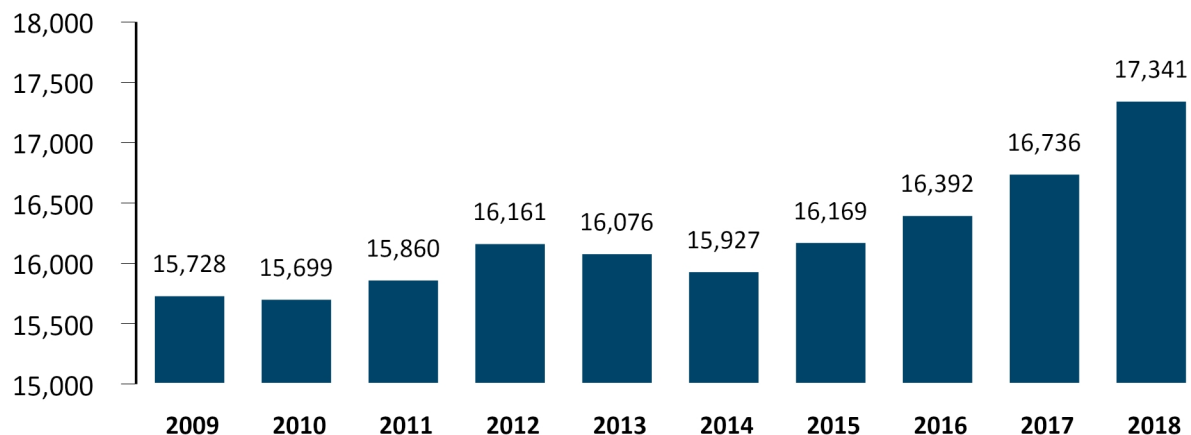
Benefit and Refund Deductions from Fiduciary Net Position by Type

2014	2013	2012	2011	2010	2009
\$300,406	\$951,163	\$1,067,020	\$175,587	\$402,564	\$262,920
\$300,406	\$951,163	\$1,067,020	\$175,587	\$402,564	\$262,920

2014	2013	2012	2011	2010	2009
\$39,891,560	\$42,699,246	\$42,317,300	\$67,711,031	\$27,588,789	\$22,942,996
\$39,891,560	\$42,699,246	\$42,317,300	\$67,711,031	\$27,588,789	\$22,942,996

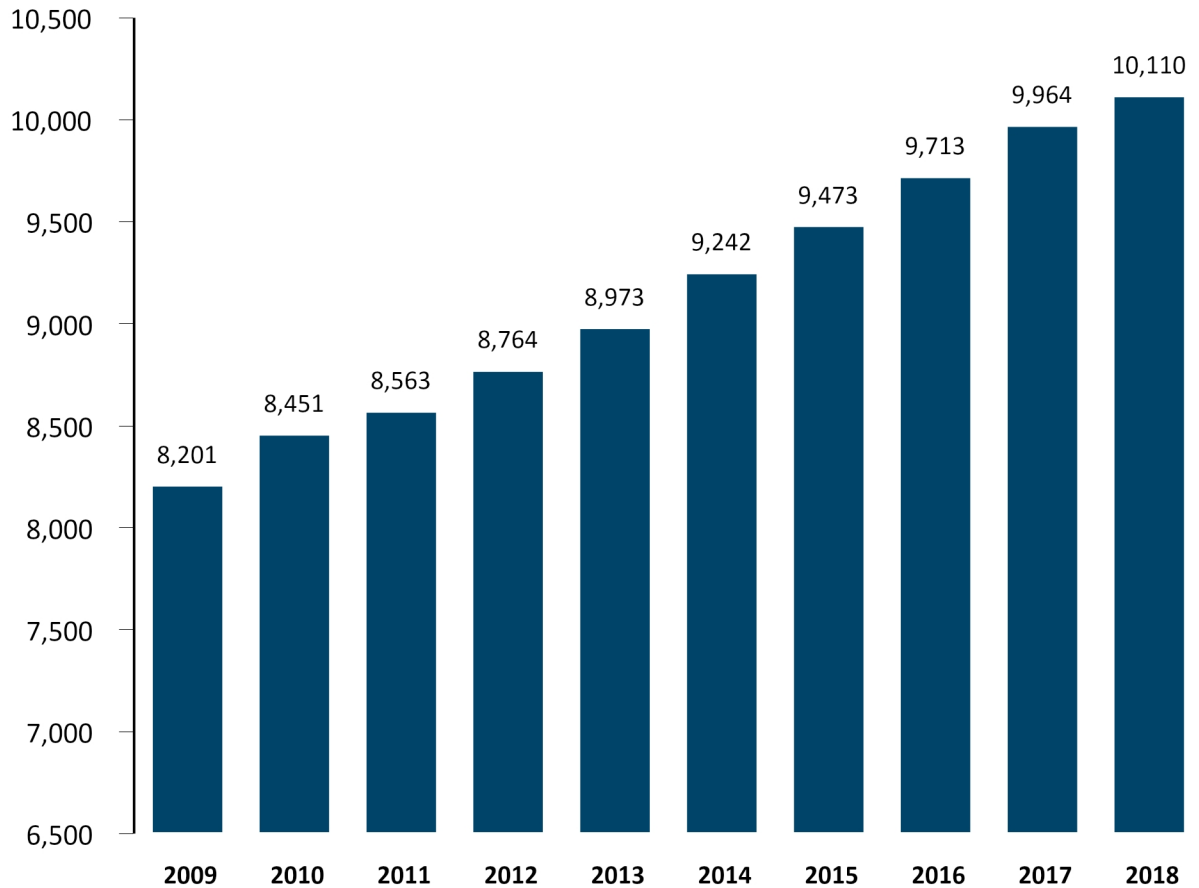
2014	2013	2012	2011	2010	2009
\$5,433,841	\$4,254,537	\$4,457,433	\$4,792,208	\$4,837,214	\$1,909,744
\$5,433,841	\$4,254,537	\$4,457,433	\$4,792,208	\$4,837,214	\$1,909,744

■ FPPA Active Members by Plan Type (2009-2018)



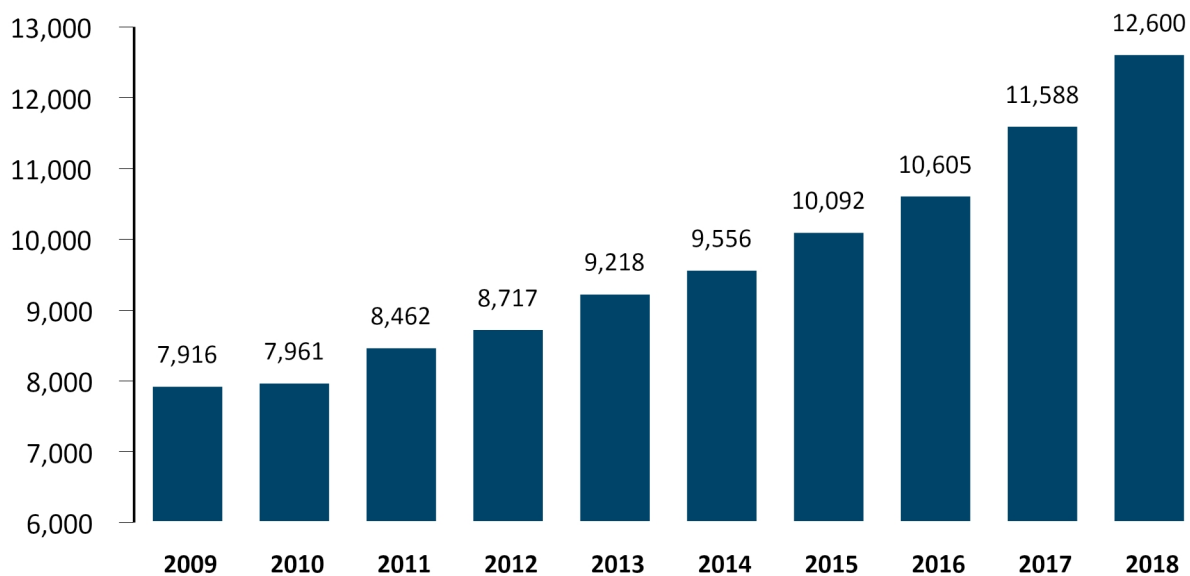
Fire & Police Members' Statewide Money Purchase Plan	91	104	125	161	154	160	133	125	118	159
Statewide Death & Disability Plan only	4,568	4,492	4,212	4,228	4,252	4,224	4,311	4,393	4,128	3,899
Affiliated Local Plans - Volunteer Firefighters	3,862	3,985	4,008	4,139	3,687	3,412	3,243	3,074	2,883	2,818
Defined Benefit System - Statewide Defined Benefit Plan	5,673	5,646	6,056	6,212	6,563	6,772	7,237	7,616	8,433	9,320
Defined Benefit System - Statewide Defined Benefit Plan DROP	126	152	215	236	290	317	313	304	294	296
Defined Benefit System - Statewide Hybrid Plan	421	403	477	470	458	419	363	346	371	381
Defined Benefit System - Statewide Hybrid Plan DROP	2	2	2	2	4	6	5	7	6	5
Defined Benefit System - Colorado Springs New Hire Pension Plan	801	748	616	595	573	539	489	440	396	373
Defined Benefit System - Colorado Springs New Hire Pension Plan DROP	62	77	81	67	57	54	64	80	101	85
Affiliated Local Plans - Old Hire	39	18	10	9	7	3	3	3	3	2
Affiliated Local Plans - Old Hire DROP	83	72	58	42	31	21	8	4	3	3
TOTAL MEMBERS	15,728	15,699	15,860	16,161	16,076	15,927	16,169	16,392	16,736	17,341

■ FPPA Retired Members by Plan Type (2009-2018)



Statewide Death & Disability Plan only	812	853	881	928	968	1,020	1,063	1,111	1,185	1,238
Affiliated Local Plans - Volunteer Firefighters	3,165	3,282	3,339	3,409	3,495	3,570	3,628	3,647	3,692	3,734
Defined Benefit System - Statewide Defined Benefit Plan	463	528	589	687	802	930	1,073	1,220	1,376	1,547
Defined Benefit System - Statewide Hybrid Plan	180	193	187	183	185	205	200	211	216	173
Defined Benefit System - Colorado Springs New Hire Pension Plan	188	212	239	265	286	314	348	381	395	426
Affiliated Local Plans - Old Hire	3,346	3,319	3,275	3,229	3,159	3,118	3,061	2,992	2,942	2,864
Fire & Police Members' Statewide Money Purchase Plan	47	64	53	63	78	85	100	151	158	128
TOTAL MEMBERS	8,201	8,451	8,563	8,764	8,973	9,242	9,473	9,713	9,964	10,110

■ Defined Benefit System Members by Status (2009-2018)



Defined Benefit System | Statewide Defined Benefit Plan

Terminated Vested	167	170	165	171	187	204	216	716	1,075	1,181
Retired & Beneficiaries	296	358	424	516	615	726	857	1,220	1,133	1,288
Non-Vested Actives	2,139	1,841	1,792	1,686	1,877	2,071	2,499	2,381	2,777	3,218
Partially Vested Actives	3,208	3,467	3,899	4,161	4,355	4,352	4,360	4,128	4,399	4,727
Fully Vested Actives	326	338	365	365	331	349	378	391	425	453
DROP Actives	126	152	215	236	290	317	313	304	294	296

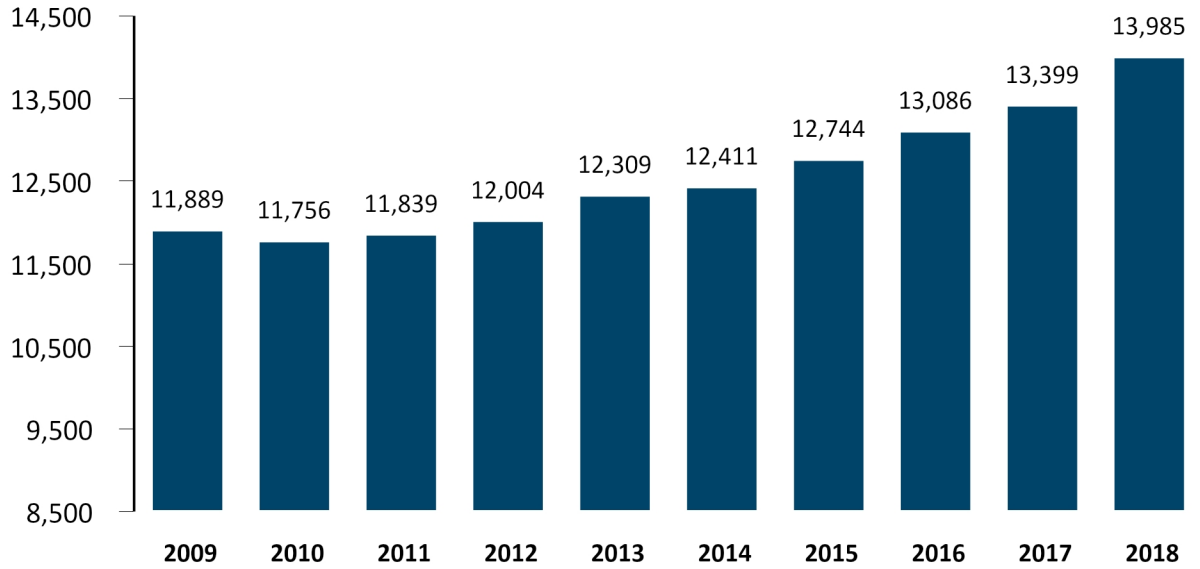
Defined Benefit System | Statewide Hybrid Plan

Retired, Beneficiaries, & Terminated Vested	180	193	187	183	185	205	200	234	248	205
Non-Vested Actives	75	55	80	54	52	36	48	24	32	37
Partially Vested Actives	73	82	104	126	119	127	120	251	251	257
Fully Vested Actives	273	266	293	290	287	256	195	48	56	49
DROP Actives	2	2	2	2	4	6	5	7	6	5

Defined Benefit System | Colorado Springs New Hire Pension Plan – Combined Police & Fire

Retired, Beneficiaries, & Terminated Vested	188	212	239	265	286	314	348	393	405	435
Non-Vested Actives	349	268	174	114	90	45	16	0	0	0
Partially Vested Actives	405	435	399	431	426	424	424	383	341	320
Fully Vested Actives	47	45	43	50	57	70	49	45	45	44
DROP Actives	62	77	81	67	57	54	64	80	101	85
TOTAL MEMBERS	7,916	7,961	8,462	8,717	9,218	9,556	10,092	10,605	11,588	12,600

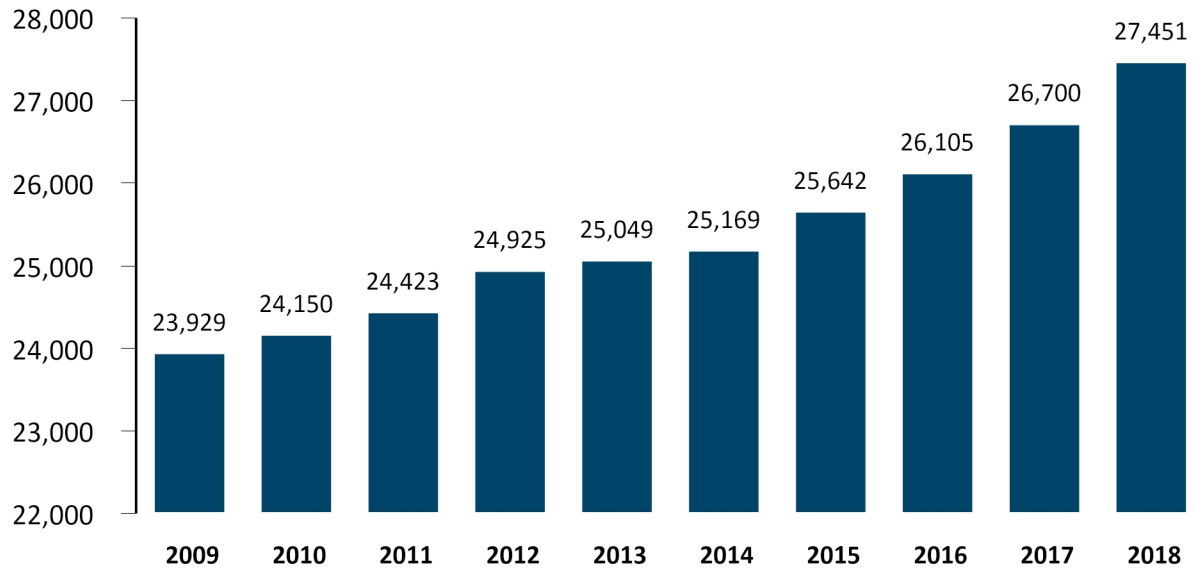
■ Members by Status (2009-2018)



Statewide Death & Disability Plan

Disabled Retirees & Beneficiaries	812	853	881	928	968	1,020	1,063	1,111	1,185	1,238
Non-Vested Actives	11,077	10,903	10,958	11,076	11,341	11,391	11,681	11,975	12,214	12,747
TOTAL MEMBERS	11,889	11,756	11,839	12,004	12,309	12,411	12,744	13,086	13,399	13,985

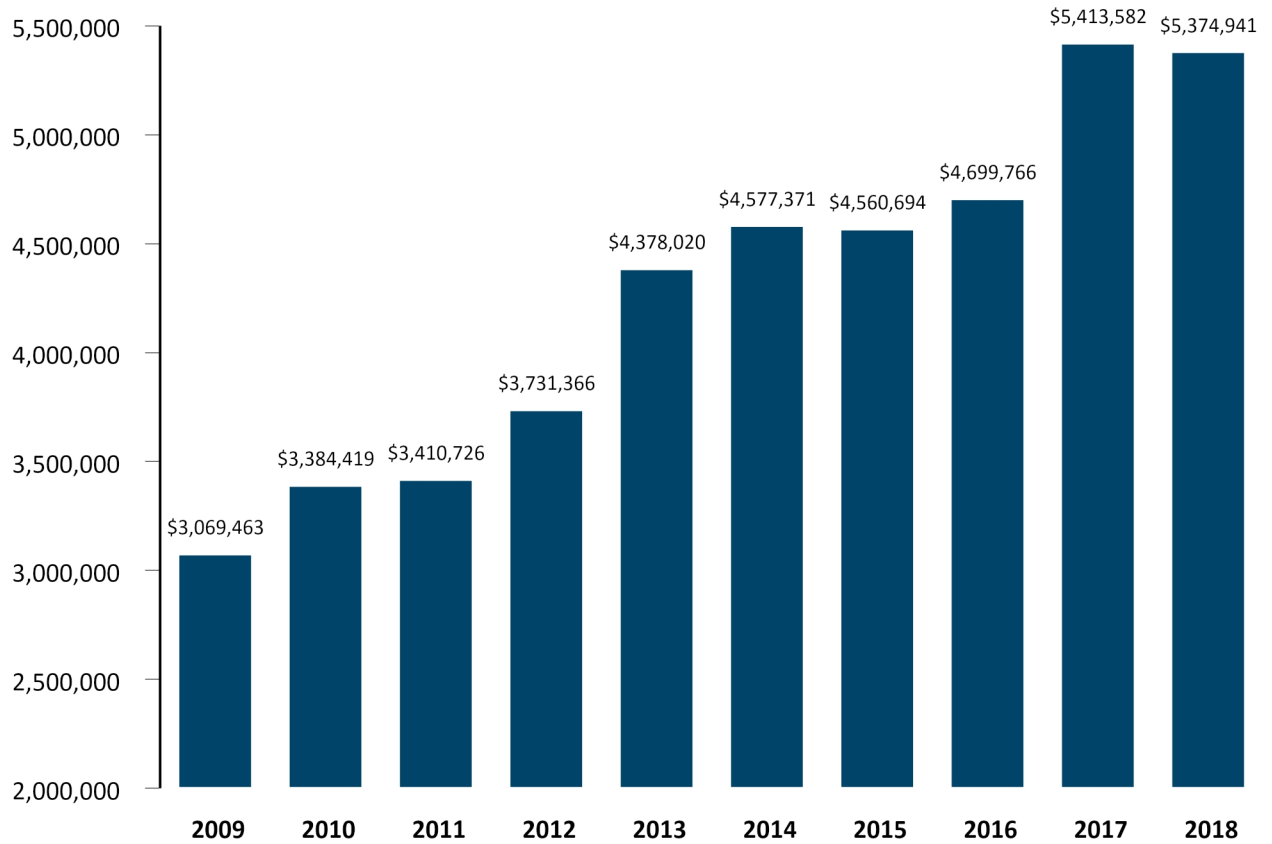
■ FPPA All Plans Active and Retired Members by Occupation (2009-2018)



Retired Firefighters	5,487	5,690	5,784	6,010	6,062	6,247	6,401	6,537	6,675	6,746
Active Firefighters	9,317	9,363	9,550	9,838	9,599	9,390	9,388	9,481	9,514	9,773
Retired Police	2,704	2,748	2,776	2,729	2,884	2,967	3,041	3,143	3,241	3,327
Active Police	6,309	6,228	6,201	6,213	6,365	6,431	6,636	6,765	7,069	7,411
Retired Administrative	10	13	3	25	27	28	31	33	48	37
Active Administrative	102	108	109	110	112	106	145	146	153	157
TOTAL MEMBERS	23,929	24,150	24,423	24,925	25,049	25,169	25,642	26,105	26,700	27,451

■ Growth of Total Pension Fund Position (2009-2018)

(Total \$ in Thousands 000's)



Revenues/Inflows	\$180,948	\$172,896	\$305,993	\$215,785	\$377,473	\$216,895	\$249,166	\$227,733	\$450,142	\$434,047
Withdrawals/Outflows	(234,719)	(260,644)	(304,386)	(288,765)	(301,746)	(306,541)	(338,222)	(335,642)	(429,224)	(446,434)
Return on Investments	515,321	402,704	24,700	393,620	570,927	288,997	72,379	246,981	692,898	(26,254)
Beginning Net Position	2,607,913	3,069,463	3,384,419	3,410,726	3,731,366	4,378,020	4,577,371	4,560,694	4,699,766	5,413,582
Total \$ in thousands (000's)	\$3,069,463	\$3,384,419	\$3,410,726	\$3,731,366	\$4,378,020	\$4,577,371	\$4,560,694	\$4,699,766	\$5,413,582	\$5,374,941

■ Schedule of Retired Members by Type of Benefit as of December 31, 2018

Monthly Benefit Amount							
	<=\$500	\$501-\$1,000	\$1,001-\$1,500	\$1,501-\$2,000	\$2,001-\$2,500	>\$2,501	Total
Statewide Death & Disability Plan							
Occupational Disability	21	85	181	187	148	260	882
Occupational Disability-Survivor	27	15	16	6	2	1	67
Total Disability	0	1	1	3	10	82	97
Total Disability-Survivor	1	4	8	14	9	24	60
Survivor of Active	3	12	19	38	33	27	132
*Fire & Police Members' Statewide Money Purchase Plan							
*Money Purchase Only	N/A	N/A	N/A	N/A	N/A	N/A	128
Defined Benefit System - Statewide Defined Benefit Plan							
Retired	0	0	2	4	12	611	629
Vested	42	160	137	87	101	317	844
Retired-Survivor	13	21	9	6	4	21	74
Defined Benefit System - Statewide Hybrid Plan							
*Money Purchase Only	N/A	N/A	N/A	N/A	N/A	N/A	123
Retired	0	0	0	0	1	27	28
Vested	0	7	0	2	4	8	21
Retired-Survivor	0	0	0	1	0	0	1
Defined Benefit System - Colorado Springs New Hire Pension Plan							
Retired	0	0	0	0	0	169	169
Vested	0	7	39	32	20	137	235
Retired-Survivor	1	3	5	7	1	5	22
Affiliated Local Plans							
Disability Retirement	4	5	1	0	0	569	579
Disability-Survivor	7	6	2	6	32	290	343
Retired	1,017	422	51	8	29	1,370	2,897
Vested	1,553	306	14	3	3	102	1,981
Retired-Survivor	381	43	23	21	68	262	798
Totals	3,070	1,097	508	425	477	4,282	10,110

* Details not available for members in the Money Purchase plans.

FPPA

Fire & Police Pension Association of Colorado



www.FPPAco.org

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