



## City of Austin Police Retirement System

### 2016 Annual report

*"To serve the APRS membership and protect the retirement benefits for the past, present and future members of the System"*

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# INTRODUCTORY SECTION



### Letter to Members

Dear Members,

The Board of Trustees and staff of the Austin Police Retirement System are pleased to present the Annual Report for the fiscal year ended December 31, 2016.

The annual report is intended to provide complete and reliable information regarding the financial performance of the System and measure the responsible stewardship of the System's assets.

The annual report is divided into the following sections:

- The Introductory Section provides basic information about the organization.
- The Financial Section includes an investment overview provided by the System's consultants, the independent auditor's report, Management's Discussion and Analysis (MD&A), basic financial statements, notes to the basic financial statements and required supplemental information.
- The Actuarial Section contains the consulting actuary's Certification Letter and the full actuarial valuation report.
- The Historical Information & Benefits Sections contain highlights of historical benefit changes, a comparative statement of membership over the last two years and the membership benefit guide.

Montemayor Britton Bender PC, the System's independent auditor, issued an unqualified opinion on the System's financial statements. The report indicates that the financial statements are in accordance with Governmental Accounting Standards Board rulings and that the System's financial condition and operations are fairly presented. It is the best report an independent auditor may issue.

The 2016 actuarial valuation was performed by Foster & Foster, Inc. The Actuarial Valuation Report indicates that the funding ratio (assets compared to liabilities) is 66.2%, and the funding period to amortize liabilities is 27.3 years.

The System's management staff is responsible for maintaining internal controls. These controls are designed to provide reasonable assurance that the assets are protected and that financial transactions are executed in accordance with Board policy and federal,



state, and local laws and regulations. Additionally, the controls provide assurance regarding Management's responsibility to the System and facilitate the timely preparation of financial statements in accordance with generally accepted accounting principles.

As always, the Board of Trustees and staff welcome your comments. We appreciate your support and the opportunity to serve you. Trustees and staff are dedicated to maintaining the System's financial strength through diversification of fund assets and sound management of the System.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Beck".

Jim Beck, Chairman  
Board of Trustees

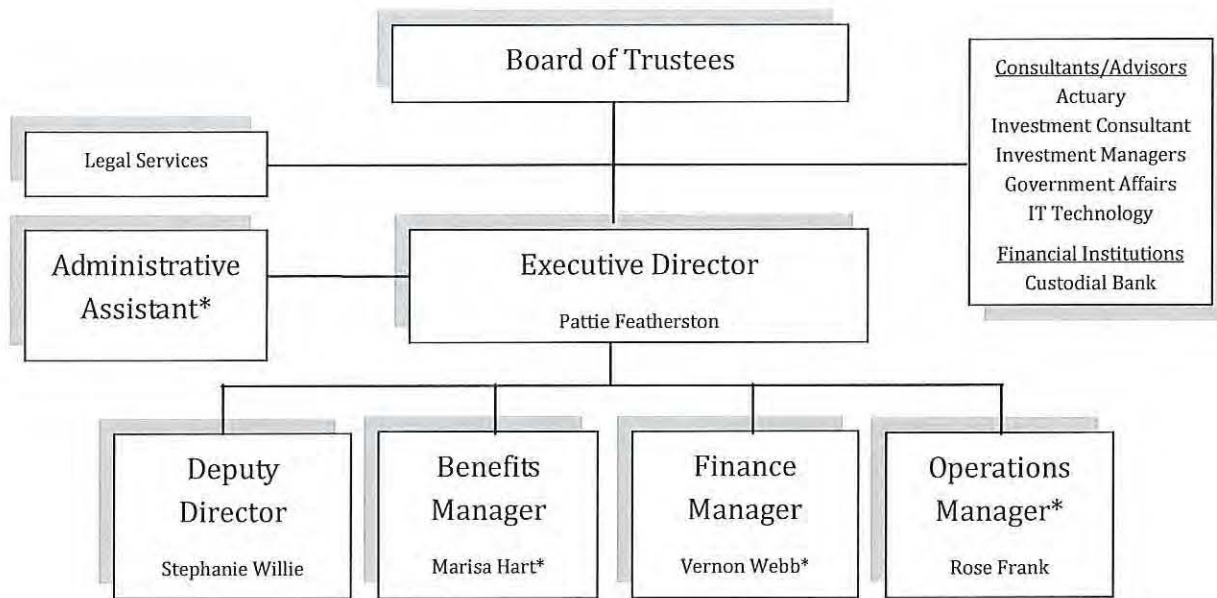
A handwritten signature in black ink, appearing to read "P. Featherston".

Pattie Featherston  
Executive Director

## Board of Trustees

<b>Police Member</b>	(Ret) Det. Tim Atkinson Chairman
<b>Police Member</b>	Sgt. Jim Beck Vice Chairman
<b>Police Member</b>	(Ret) Cmdr. Mike Jung
<b>Police Member</b>	Cmdr. Todd Smith
<b>Police Member</b>	Sgt. Andrew Romero
<b>Retired Police Member</b>	Lt. Carl Zimmerman
<b>Retired Police Member</b>	AC Kendall Thomas
<b>City Member</b>	Mayor Pro Tem Kathie Tovo
<b>City Member</b>	Interim City Manager Elaine Hart
<b>City Member</b>	City Treasurer Art Alfaro
<b>Citizen Member</b>	Mr. Chesley Wood

## Organizational Chart



\*Effective April 2017, the position of Benefits Manager was filled by Michelle Ruland and the position of Finance Manager was filled by John Poth. The Operations Manager position was created in the fourth quarter of 2016 and filled by the prior Benefits Coordinator. The Administrative Assistant position was unfilled in 2016 until May 2017 when it was filled by Deborah Esparza.



## Key Professional Service Providers

### **Custodian Bank**

The Northern Trust Company, Chicago, Illinois

### **Investment Consultant & Performance Evaluator**

AndCo Consulting, Independence, Ohio

### **Actuary**

Foster & Foster, Inc., Ft. Myers, Florida

### **Auditor**

Montemayor Britton Bender PC, Austin, Texas

### **Legal Counsel**

Klausner & Kaufman, Jensen & Levinson, PA, Plantation, Florida

## Investment Managers

### Domestic Equity

Baird Investment Management, Milwaukee, Wisconsin  
Kennedy Capital Management, Inc., St. Louis, Missouri  
NTGI Russell 3000 Index Fund, Chicago, Illinois  
Seizert Capital Partners, Birmingham, Michigan  
Wellington Management Company, Boston, Massachusetts

### International Equity

Dreihaus International Securities, LLC, Chicago, Illinois  
Thompson Siegel & Walmsley, LLC, Richmond, Virginia  
Lee Munder Capital Group, LLC, Boston, Massachusetts

### Other Equity

WR Huff Energy Fund, LP, Morristown, New Jersey  
Sail Capital Partners, LLC, Irvine, California  
Excelsior Investors, LTD, Dallas, Texas

### Core Fixed Income

Orleans Capital, Mandeville, Louisiana

### Global Fixed Income

Franklin Templeton Global CIT, Miami, Florida

### Other Fixed Income

Capital Point Partners, Houston, Texas  
LBC Credit Partners, Inc., Philadelphia, Pennsylvania  
Providence Debt Fund III GP LP, New York, New York  
Franchise Capital Partners (Capital Springs), Boca Raton, Florida

### Hedge Funds

Double Eagle Capital Management, Irving, Texas

**Real Estate**

C B Richard Ellis Strategic Partners, Inc., Los Angeles, California  
C B Richard Ellis Capital Partners, Inc., New York, New York  
Edison Investments, Inc., Wichita, Kansas  
FWAR Investments, Dallas, Texas  
Gainsville Land, Hall County, Georgia (formerly Vision Capital Partners)  
GE Asset Management, Inc., Stamford, Connecticut  
Invesco Realty Advisors, Dallas, Texas  
JP Morgan Asset Management, New York, New York  
Morgan Stanley & Co. Inc., New York, New York  
New Boston Fund, Inc., Boston, Mass  
Rocksprings Capital Land, Houston, Texas  
Sentinel Real Estate, Inc., New York, New York  
VEF Advisors, LLC, Atlanta, Georgia  
World Class Capital Group, Austin, Texas

**Timber**

BTG Pactual Timberland Group, Atlanta, Georgia  
Timberland Investment Resources, Atlanta, Georgia  
Timbervest Crossover, LP, Atlanta, Georgia



# FINANCIAL SECTION

## Investment Overview

Prepared by: AndCo Consulting, Investment Consultant to the Board

Calendar year 2016 was a time of volatility across investment markets. The first half of the year was impacted by questions of recession in China and the U.S. followed by the chaos around the United Kingdom's decision to exit the European Union in the second quarter. The second half of the year was impacted by further uncertainty around the outcome of the U.S. presidential election. The consensus expectation of a Clinton victory led to expectations of more of the same in the U.S. while a Trump election was more of a wild card. On election night, the stock markets fell dramatically on news of the Trump victory but then moved almost straight up and propelled U.S. markets to a very strong year of returns. The U.S. equity markets produced strong results across the market cap spectrum with U.S. large cap stocks (S&P 500) up 12% while mid-caps were up 14% and small caps were the best performers up 21%. Small caps generated most of their gains in the fourth quarter on expectations that they would benefit the most from Trump's planned agenda of tax reform and infrastructure spending. International Equity Markets delivered a small gain to investors of 4.5% (MSCI ACWIXUS). Developed markets, as represented by the MSCI EAFE Index, were up 1.0%, while Emerging Markets (MSCI EME Index) fared much better with a return of 11.2% which was the best annual return since 2012.

U.S. equities bounced back from a flat 2015 with the help of solid economic data and low interest rates. Stocks got off to a rocky start early in the year, but after China announced stimulus measures and the Federal Reserve said it would proceed cautiously on rates, stocks then proceeded to rise, with a notable hiccup following the U.K.'s surprise vote to exit the European Union in June. Donald Trump's win in the November presidential election sent stocks higher on hopes his administration would follow through on campaign pledges to cut taxes, reduce regulations and increase spending on infrastructure and the military. After a double-digit decline in 2015, energy had the biggest gain among S&P 500 sectors, rising 27%. The price of U.S. crude oil rose 45% to just under \$54 per barrel as OPEC nations finally agreed to curb production late in the year. Metals & mining and construction-related stocks rebounded, supporting the materials sector's 17% advance. Financials rose 23%, helped by prospects for higher interest rates. Health care was the only sector to decline. Pharmaceutical companies were hurt by pricing pressure and a

dearth of new products. Concerns over the future of the Affordable Care Act also weighed on the sector.

For most of the year interest rates declined amidst the volatility in the stock market. The early year volatility led to large returns for the U.S. core bond market but a pickup in inflation expectations late in the year and the Fed raising rates for the second time caused bonds to give up some of their early year gains and produce only a 2.6% return for the year.

APRS' investment portfolio for 2016 returned 7.7%. The portfolio generated a return on investment of \$50.3 million which brought the total portfolio value to \$687.8 million at year end.

The Equity allocation, which represents 55% of the total fund, was the main driver of portfolio returns with a gain of 11.4%. U.S. equities (41% of the total fund) generated gains of 15.8%, while the international equity allocation (14% of the total fund) generated a small gain of 0.7%. The U.S. equity allocation saw strong performance from active managers within the allocation as well as large gains from the small cap allocation which was added during 2016 via a reduction in alternative investments.

The Fixed Income allocation (16% of the Fund) posted a return of 4.4% which outperformed the broad bond market for the year. Active manager decisions fueled the gains during the year as many of the same positions that had hurt returns in 2015 paid off in 2016. Given the low return outlook for bonds the allocation remains low.

The Real Estate allocation (10% of the Fund) generated a small gain of 0.8% after strong returns in 2015 while the Timber allocation (4% of the Fund) posted a small loss of -6.6% in 2016. The Private Equity allocation (7% of the Fund) added 15% for the year due largely to the rebound seen in the price of oil impacting the portfolio's energy holdings. The Hedge Fund allocation (5% of the Fund) gained 0.5% for the year.

The Board of Trustees remains committed to investing for the long haul using a well-diversified mix of investments among various asset classes managed by professional money managers who have demonstrated their professionalism over time with a goal of generating a return that equals or exceeds the actuarial return assumption.



INDEPENDENT AUDITORS'  
REPORT



**Montemayor Britton Bender PC**  
CERTIFIED PUBLIC ACCOUNTANTS  
INDEPENDENT AUDITOR'S REPORT

Board of Trustees  
City of Austin Police Retirement System

Report on the Financial Statements

We have audited the accompanying financial statements of City of Austin Police Retirement System (System), which comprise the statements of fiduciary net position as of December 31, 2016 and 2015, and the related statements of changes in fiduciary net position for the years then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Plan 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 an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free 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 System'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 System's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

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

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### Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial status of the System as of December 31, 2016 and 2015, and the changes in its financial status for the years then ended in accordance with accounting principles generally accepted in the United States of America.

### Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and supplemental schedules on pages 15–20 and 44-55 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, and historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

*Montemayor Britton Bender PC*

2 August 2017  
Austin, Texas



## Management Discussion and Analysis

This section of the City of Austin Police Retirement System's (the System) financial report presents our discussion and analysis of the System's financial performance during calendar years 2016 and 2015. We encourage readers to consider the information presented here in conjunction with our financial statements that follow.

### Financial Highlights

- Fiduciary net assets held in trust by the System increased by \$41.8 million, or 6.5 percent, in 2016, and increased by \$6.2 million, or .96 percent, in 2015. The asset increases in 2015 and 2016 are the result of the continuation of U.S. economic stabilization, the Federal Reserve keeping the interests rates low, and overall increased consumer confidence in the economy.
- Contributions decreased in 2016 by \$1.8 million, or approximately 3.2 percent from 2015, and increased by \$3.9 million, or 7.2 percent in 2015. The decrease in 2016 is primarily due to a decrease in the City's additional contribution required for the Proportionate Retirement Program. The increase in 2015 was due to the City of Austin's 3.0 percent general wage increase, and an increase in the number of members.
- The amount of benefits paid to retired members and beneficiaries, including refunds to terminating employees, increased by 1.64 percent, or \$822,063, in 2016 and increased by 10.1 percent, or \$4.6 million, in 2015. The larger increase in 2015 is due to an increase in the number of System retirees.
- The System's rate of return on investments for the year ended December 31, 2016 was 7.87 percent gross of fees and 7.67 percent net of fees, on a market value basis, which was more than the return of -0.83 percent gross of fees and -1.05 percent net of fees for the year ended December 31, 2015.
- The funding objective of the System is to meet long-term benefit obligations through contributions and investment income. As of December 31, 2016, the date of the most recent actuarial valuation, the System's funded ratio of actuarial assets as a percentage of actuarial liabilities is 66.2 percent, which is down from 66.6 percent at December 31, 2015.

See independent auditor's report.



### Overview of the Financial Statements

This discussion and analysis is intended to serve as an introduction to the Systems' financial statements, which are comprised of the following:

- **Statement of Fiduciary Net Position** - presents the Systems' assets and liabilities and the resulting Net Position for pension benefits. This statement reflects a year-end snapshot of the Plan's assets at fair market value, along with cash and short-term investments, receivables and other assets and liabilities.
- **Statement of Changes in Fiduciary Net Position** - provides a view of the current year additions to and deductions from the plan. These two statements report the system's Net Position, the difference between assets and liabilities, which is one way to measure the Systems' financial position.
- **Notes to the Financial Statements** - provide additional information that is essential to a full understanding of the data provided in the financial statements.

Collectively, this information presents the Fiduciary Net Position as of the end of each of the last three years, and summarizes the changes in Fiduciary Net Position for the year.

#### Financial Analysis

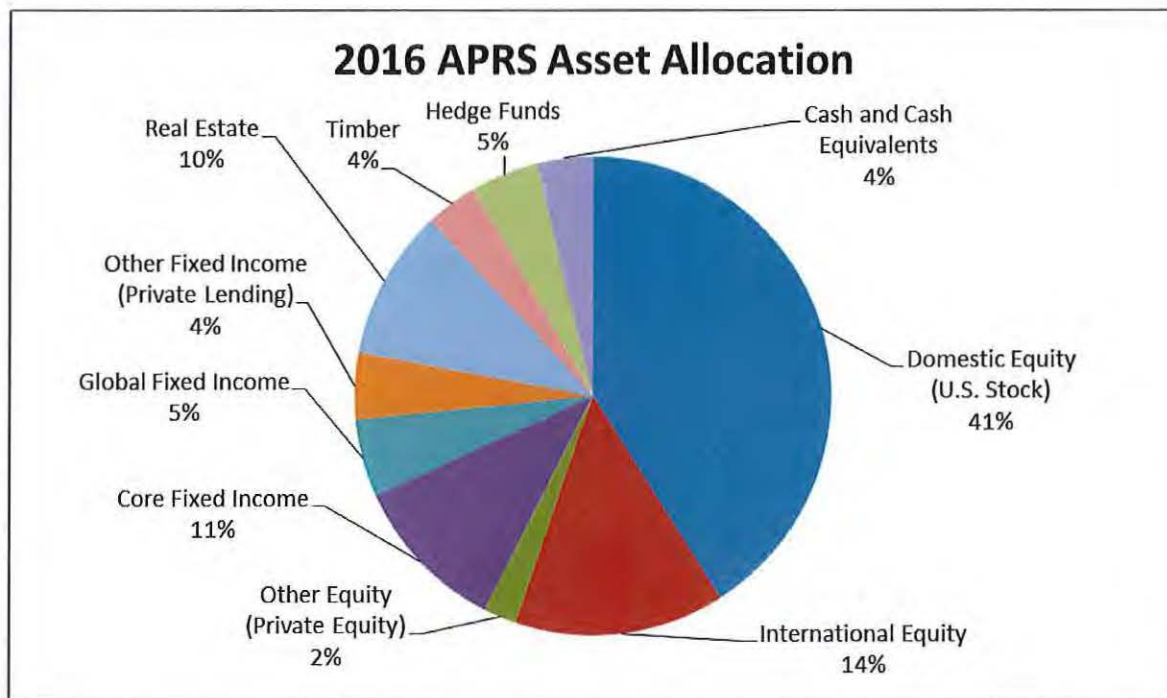
##### Summary of Fiduciary Net Position December 31, 2016 / 2015 / 2014

<u>Assets</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Receivables	\$ 1,279,327	\$ 3,476,641	\$ 5,968,385
Investments	687,472,333	643,286,643	634,092,000
Fixed assets, net	740,037	439,301	471,327
Other	7,665	10,573	8754
Total assets	<u>\$ 689,499,362</u>	<u>\$ 647,213,158</u>	<u>\$ 640,540,466</u>
<u>Liabilities</u>			
Total Liabilities	<u>3,479,099</u>	<u>3,039,020</u>	<u>2,521,396</u>
Fiduciary Net Position for pension benefits	<u>\$ 686,020,263</u>	<u>\$ 644,174,138</u>	<u>\$ 638,019,070</u>

See independent auditor's report.

The total Fiduciary Net Position increased by \$41.8 million, or 6.5 percent, to \$686.0 million at the end of 2016, compared to \$644.2 million at the end of 2015 which was an increase of \$6.2 million, or 0.96 percent. The investment asset increases of \$44.2 million in 2016 are the result of the continuation of U.S. economic stabilization, the Federal Reserve keeping the interests rates low, and overall increased consumer confidence in the economy. The increase in fixed assets of \$0.3 million in 2016 is primarily due to the Systems' building improvements. The decrease in receivables of approximately \$2.2 million in 2016 is primarily due to a decline in interest and dividends received at year-end attributable to the prior year.

Below is a chart of the System's asset allocation percentages for the year ending December 31, 2016:

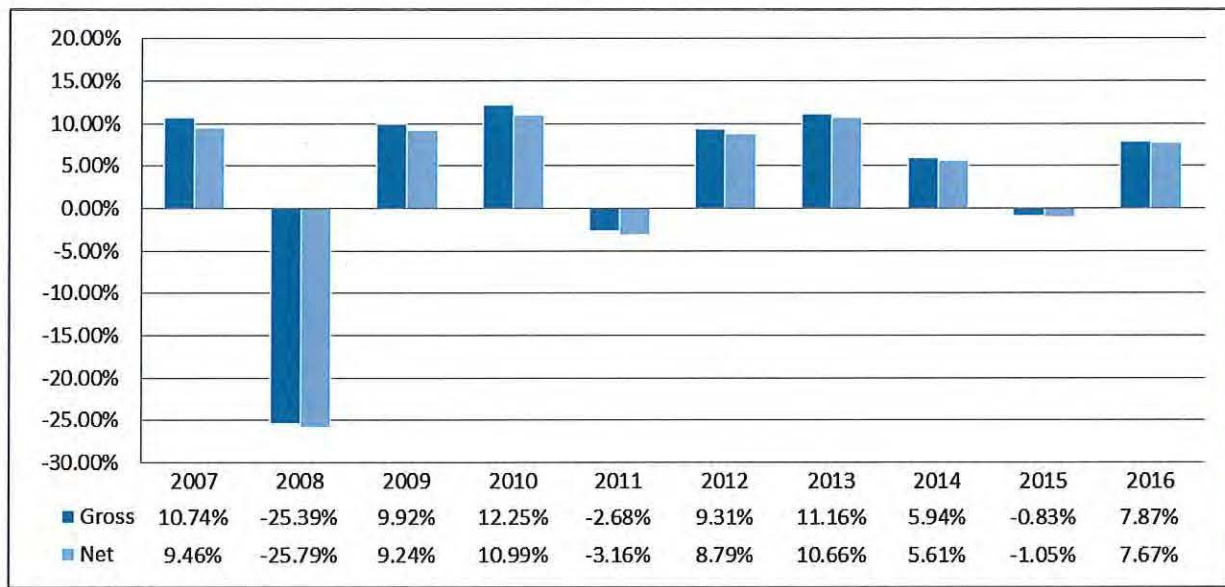


See independent auditor's report.

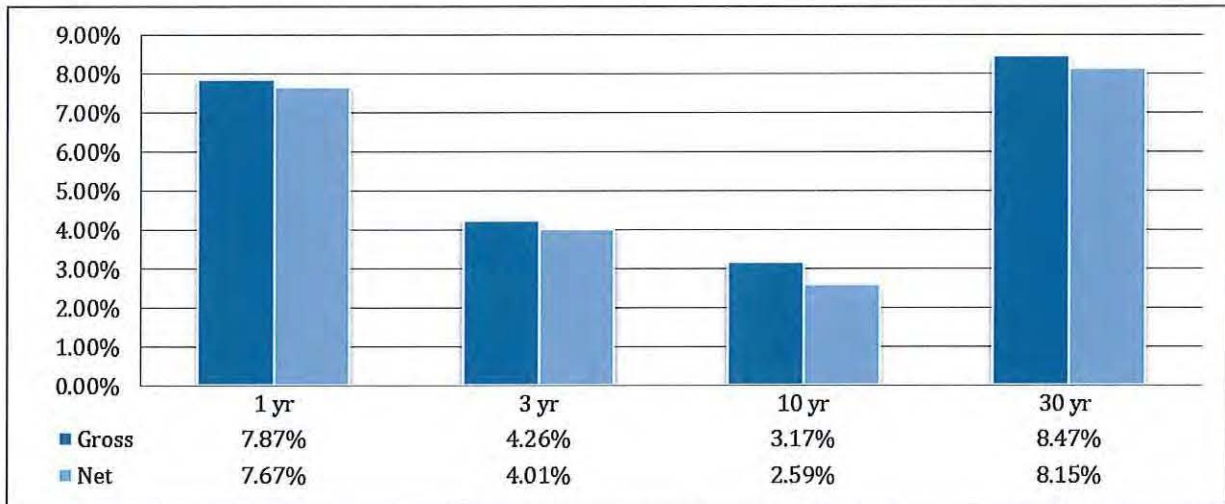
**Investment Returns and Assumptions.** The Systems’ rate of return in 2016 is 7.67 percent net of expenses. The following charts exhibit the short- and long-term gains and losses.

Note: Historical returns for 2007-2015 have been adjusted from previous annual reports to align with the calculations of the current investment consultant using time-weighted annualized returns.

**10 Fiscal Year Returns**



**Annualized Rolling Gross & Net Investment Returns**



See independent auditor’s report.



**Summary of Changes in Fiduciary Net Positions****Years Ended December 31, 2016, 2015 and 2014**

**Additions.** Funds to pay benefits are accumulated through contributions and returns on invested funds.

	<b>Summary of Changes in Fiduciary Net Position Years Ended December 31, 2016, 2015 and 2014</b>		
<u>Additions</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Contributions	\$ 56,105,481	\$ 57,948,151	\$ 54,064,545
Investment income	39,618,214	1,411,242	36,986,448
Investment expense	(1,881,521)	(2,025,329)	(1,851,034)
Net investment income	37,736,693	(614,087)	35,135,414
Other income	103,139	7,450	106,674
Total additions	\$ 93,945,313	\$ 57,341,514	\$ 89,306,633
<u>Deductions</u>			
Benefit payments & contributions refunded	\$ 50,827,501	\$ 50,005,438	\$ 45,403,125
General and administrative expenses	1,271,687	1,181,008	994,841
Total deductions	\$ 52,099,188	\$ 51,186,446	\$ 46,397,966
Net increase/decrease	\$ 41,846,125	\$ 6,155,068	\$ 42,908,667
Fiduciary Net Position beginning of year	\$ 644,174,137	\$ 638,019,069	\$ 595,110,402
Fiduciary Net Position end of year	\$ 686,020,262	\$ 644,174,137	\$ 638,019,069

Member and City of Austin contributions for 2016 and 2015 totaled \$56.1 million and \$57.9 million, respectively. The 2016 contributions represent a decrease of \$1.8 million, or approximately 3.2 percent, below 2015. The 2015 contributions represent an increase of \$3.9 million, or approximately 7.2 percent, above 2014.

The total rate of return for the System's investment portfolio in 2016 (net of investment expenses) was 7.67 percent as compared to -1.05 percent for 2015.

See independent auditor's report.



**Deductions.** The expenses paid by the System encompass benefit payments and administrative costs. Benefit payments, comprising the vast majority of the System's expenses, include payments to retirees, beneficiaries and alternate payees, as well as refunds of member contributions. Administrative expenses support the direct operations of the System, and include employee salaries and benefits, rent, utilities, and office expenses.

Benefits paid to retirees, beneficiaries and alternate payees in 2016 were \$50.8 million, an increase of \$0.8 million over the \$50.0 million paid in 2015. The total number of retirees, beneficiaries and alternate payees increased to 849 in 2016 compared to 801 in 2015. Refunds to terminating employees in 2016 remained relatively the same at \$996 thousand in 2016 from \$994 thousand in 2015. Administrative expenses in 2016 were \$1.27 million and \$1.18 million in 2015.

Annual investment expenses paid by the System decreased by \$144 thousand in 2016 and increased by \$ 174 thousand in 2015. The decrease in 2016 is largely due to an increase in investment indexing that reduces manager fees.

**Overall Analysis.** As of December 31, 2016, the System's Fiduciary Net Position increased by \$41.8 million or 6.5 percent from the prior year. Over the five-year period ending December 31, 2016 the System's Fiduciary Net Position has increased by \$147.1 million or 27.3 percent.

**Request for Information.** This financial report is designed to provide a general overview of the finances of the City of Austin Police Retirement System for all parties with an interest. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the Executive Director, City of Austin Police Retirement System, 2520 South IH-35 Suite 100, Austin, Texas 78704-0019.

See independent auditor's report.

## Statement of Fiduciary Net Position

December 31, 2016 and 2015

<b>ASSETS</b>	<b>2016</b>	<b>2015</b>
Investments, at fair value		
Domestic Equity (U.S. Stock)	\$ 281,633,999	\$ 208,704,405
International Equity	98,087,795	90,315,017
Other Equity (Private Equity)	15,212,975	13,550,348
Core Fixed Income	73,842,266	43,036,426
Global Fixed Income	35,905,897	33,290,053
Other Fixed Income (Private Lending)	31,138,820	26,416,761
Real Estate	69,564,043	121,401,719
Timber	24,563,697	33,839,555
Hedge Funds	31,190,318	61,471,937
Cash & Cash Equivalents	26,332,523	11,260,422
Total Investments	<u>\$ 687,472,333</u>	<u>\$ 643,286,643</u>
Interest and dividends receivable	190,489	2,748,533
City of Austin retirement contributions receivable	655,753	442,581
City of Austin death benefit contributions receivable	4,692	3,030
Participant contributions receivable	408,847	275,855
Proportionate retirement program contributions receivable	9,844	6,642
Fixed assets, net	740,037	439,301
Other	17,367	10,573
<b>Total assets</b>	<u>689,499,362</u>	<u>647,213,158</u>
<b>LIABILITIES</b>		
Accounts payable and accrued liabilities	2,710,286	2,730,569
Refunds payable	768,813	308,451
<b>Total liabilities</b>	<u>3,479,099</u>	<u>3,039,020</u>
<b>FIDUCIARY NET POSITION</b>	<u>686,020,263</u>	<u>644,174,138</u>

The accompanying notes are an integral part of this financial statement presentation.

## Statement of Changes in Fiduciary Net Position

December 31, 2016 and 2015

<b>ADDITIONS TO PLAN NET POSITION:</b>	<b>2016</b>	<b>2015</b>
<b>Contributions:</b>		
City of Austin retirement contributions	\$ 33,025,835	\$ 32,143,693
City of Austin death benefit contributions	226,308	192,810
Participant contributions	22,853,338	25,611,648
<b>Total contributions</b>	<b>56,105,481</b>	<b>57,948,151</b>
<b>Investment income:</b>		
Net increase (decrease) in the fair value of investments	31,764,798	(7,166,112)
Interest and dividends	7,853,982	8,476,975
Securities lending	-	-
Rental and other income	102,573	107,829
<b>Total investment gain (loss) before expenses</b>	<b>39,721,353</b>	<b>1,418,692</b>
<b>Investment expenses:</b>	<b>(1,881,521)</b>	<b>(2,025,329)</b>
<b>Net gain (loss) from investments</b>	<b>37,839,832</b>	<b>(606,637)</b>
<b>Total additions (deletions) to Fiduciary Net Position</b>	<b>93,945,313</b>	<b>57,341,514</b>
 <b>DEDUCTIONS FROM FIDUCIARY NET POSITION:</b>		
Retirement benefit payments	49,761,331	48,961,161
Death benefit payments	70,000	50,000
Contributions refunded to terminating employees	996,170	994,278
General and administrative expenses	1,271,687	1,181,007
<b>Total deductions from Fiduciary Net Position</b>	<b>52,099,188</b>	<b>51,186,446</b>
 <b>NET INCREASE (DECREASE) IN FIDUCIARY NET POSITION</b>	<b>41,846,125</b>	<b>6,155,068</b>
 <b>Beginning Fiduciary Net Position</b>	<b>644,174,137</b>	<b>638,019,069</b>
<b>ENDING FIDUCIARY NET POSITION</b>	<b>686,020,262</b>	<b>644,174,137</b>

The accompanying notes are an integral part of this financial statement presentation.



## Notes to Financial Statements

### Note 1: Organization and System Description

The Board of Trustees (Board) of the City of Austin Police Retirement System (System) is the administrator of a single-employer defined benefit pension plan. The System is considered part of the City of Austin's (City) financial reporting entity and is included in the City's financial reports as a pension trust fund.

The System was originally established in 1979 by a City Council ordinance. However, in 1991, the System became governed by state law with plan amendments to be made by the Legislature of the State of Texas. The System provides retirement, death, disability and withdrawal benefits to plan members and their beneficiaries. Benefits vest after 10 years of credited service. Participants may retire at 23 years of service excluding any military service credit regardless of age, or at age 55 with 20 years of service excluding any military service or at age 62. The monthly benefit at retirement is payable as a life annuity.

The monthly benefit is equal to 3.2 percent of the highest 36-month average salary multiplied by years and months of service.

The Retroactive Deferred Retirement Option Plan (Retro DROP) provisions require that a participant must have 23 years of creditable service with the retirement system excluding any military service credit on the date the participant elects the Retro DROP benefit computation date. Effective April 1, 2007, the Retro DROP was amended to include Forward DROP participation. As of Board action on February 18, 2015, the Retro DROP option is open only to members with 23 years of creditable service as of March 31, 2015. Further, the Retro DROP provisions may be changed in the future by Board rule with approval by the System's actuary.



### **Note 1: Organization and System Description**

The Post Retirement Option Plan (PROP) is a program allowing retiring members to transfer a DROP lump sum amount or defer a portion of the monthly annuity payments to an interest bearing PROP account. Effective October 1, 2007 this option was amended to include a partial deferral of a retiree's monthly annuity payment into an interest bearing PROP account. Interest credits will be paid on the participant's PROP account following the participant's retirement until the entire lump sum is paid. Interest is payable on PROP accounts on an annual rate determined by the Board.

Permissive Service delayed retirement is an option allowing a member with at least 20 years of creditable service at termination of employment with the APD the option to a delayed retirement benefit. The delayed benefit is payable upon completion of the purchase of service credit for each year of credited pension service. The maximum service credit purchase is five years.

A \$10,000 post-retirement lump sum death benefit is payable from a separate Retiree Death Benefit Fund administered by the System. As of December 31, 2016 and 2015, the assets of the Retiree Death Benefit Fund were \$1,084,516 and \$929,148, respectively, which are included in the System's total market value of Net Assets Held in Trust Available for Pension Benefits of \$686,020,263 and \$644,174,138, respectively.

Distributions to members or their beneficiaries are also available in the event of total and permanent disability, provided the member has completed 10 years of service or the injury was sustained during the performance of employment duties, or upon death. The terms of benefit payments are determined by certain elections made by the member, their level of earnings and length of service. Payments to members or their beneficiaries may be increased annually on an ad hoc basis, limited to 6 percent per year, and subject to the approval of the Board and the actuary.

**Note 1: Organization and System Description**

Beginning in 2009, the System and the City began participating in the Texas Proportionate Retirement Program (PRP). Service in other participating public employment retirement systems can be combined with service in the System to satisfy the System's eligibility requirements. Other participating systems include the Texas statewide systems, the City of Austin Employees' Retirement System, and the systems for the City of El Paso employees.

Participating members in the System include full-time police officers and cadets employed by the police department of the City and employees of the System. The following membership status of the System was reflected in the actuarial valuation as of December 31, 2016 and 2015:

Retirees and beneficiaries currently receiving benefits (849) and terminated employees entitled to future monthly benefits (36)	<u>2016</u>
Current participating members	885
	<u>1837</u>
<b>2016 Total</b>	<b><u>2722</u></b>

Retirees and beneficiaries currently receiving benefits (801) and terminated employees entitled to future monthly benefits (41)	<u>2015</u>
Current participating members	842
	<u>1,761</u>
<b>2015 Total</b>	<b><u>2,603</u></b>

**Note 2: Summary of Significant Accounting Policies**

**BASIS OF ACCOUNTING**

The System's financial statements are prepared using the accrual basis of accounting under which expenses are recorded when the liability is incurred. Revenues are recorded in the accounting period in which they are earned and become measurable. Investment purchases and sales are recorded as of their trade date. Contributions are recognized as revenues in the period in which the related employees' payroll is



### **Note 2: Summary of Significant Accounting Policies**

earned. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

#### **CONTRIBUTIONS RECEIVABLE**

The final biweekly payroll contributions of employees for the years ended December 31, 2016 and 2015, and the City's related contributions were not deposited in the System by year end and are shown as contributions receivable in both years.

#### **ESTIMATES**

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of additions and deductions to net position held in trust available for pensions benefit during the reporting period. Actual results could differ from those estimates.

#### **METHOD USED TO VALUE INVESTMENTS**

The System's investments are reported at fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Investments that do not have an established market are reported at estimated fair value. The System's real estate investments are appraised periodically and the System receives audited financial statements from the real estate investment managers, which are used to estimate fair value. For other types of investments, the System uses financial statements submitted by investment managers, reviewed for alignment with values held by the external investment consultant and custodial bank. Investment income is recognized in the period earned, and purchases and sales of investments are recorded on a trade-date basis.



**Note 2: Summary of Significant Accounting Policies**

## SYSTEM EXPENSES

All System administrative costs are the responsibility of the System and are financed through investment earnings.

## SUBSEQUENT EVENTS

Management has evaluated subsequent events for disclosure through the date of the Independent Auditor's Report, the date the financial statements were available to be issued.

**Note 3: Fixed Assets**

Fixed assets are recorded at cost. Depreciation is computed using the straight-line method over the asset's estimated useful life of 30 years for the building and five to seven years for furniture and equipment. Fixed asset activity for the year ended December 31, 2016 consisted of:

	Beginning Balance	Additions	Deletions	Ending Balance
Assets not being depreciated				
Land	\$ 150,000	\$ -	\$ -	\$ 150,000
Assets being depreciated				
Building and improvements	870,216	343,499		1,213,715
Furniture and equipment	498,014	4,039		502,053
Leasehold improvements	56,986			56,986
Accumulated depreciation	(1,135,915)	(46,802)		(1,182,717)
Net Fixed Assets	<u>\$ 439,301</u>	<u>\$ 300,736</u>	<u>\$ -</u>	<u>\$ 740,037</u>

**Note 4: Federal Income Taxes**

The System is a Public Employee Retirement System and is exempt from Federal income taxes. Favorable determination letters from the Internal Revenue Service were issued in September 1996, April 2007, July 2009, and August 2014.

**Note 5: Deposit and Investment Risk**

The System is authorized as an independent, defined benefit plan as described in Article 6243n-1, Vernon's Annotated Texas Civil Statutes, which was signed into law on June 11, 1991. The Board is the trustee of System funds and has the power to invest and reinvest such funds in instruments or investments the Board considers prudent in accordance with the System's investment policy and state and federal law.

The Board has adopted an Investment Policy Statement (IPS) to set forth the factors involved in the management of investment assets for the System and the IPS is included with every investment manager's agreement. The fair values of the System's investments at December 31, 2016 and 2015 are presented, by type, as follows:

<b>Total Investments by Asset Class</b>	<b>2016</b>	<b>2015</b>
Domestic Equity (U.S. Equity)	\$ 281,633,999	\$ 208,704,405
International Equity	98,087,795	90,315,017
Other Equity (Private Equity)	15,212,975	13,550,348
Core Fixed Income	73,842,266	43,036,426
Global Fixed Income	35,905,897	33,290,053
Other Fixed Income (Private Lending)	31,138,820	26,416,761
Real Estate	69,564,043	121,401,719
Timber	24,563,697	33,839,555
Hedge Funds	31,190,318	61,471,937
Cash & Cash Equivalents	26,332,523	11,260,422
Total Investments	<u>\$ 687,472,333</u>	<u>\$ 643,286,643</u>

**CUSTODIAL CREDIT RISK**

Custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, the System will not be able to recover deposits or will not be able to recover collateral securities that are in the possession of an outside party. Deposits are exposed to custodial credit risk if they are uninsured and uncollateralized.

### **Note 5: Deposit and Investment Risk**

Custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, a government will not be able to recover the value of the investment or collateral securities that are in the possession of an outside party. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the name of the System and are held by either the counterparty or the counterparty's trust department or agent but not in the System's name. As of December 31, 2016 and 2015, the System's investment securities are not exposed to custodial credit risk because all securities are held by the System's custodial bank in the System's name.

### **CONCENTRATION OF CREDIT RISK**

Concentration of credit risk is the risk of loss attributed to the magnitude of the System's investment in a single issuer. Investments issued or explicitly guaranteed by the U.S. government and investments in mutual funds, external investment pools and other pooled investments are excluded from this requirement. As of December 31, 2016, there is no security issued by a single issuer that holds more than 5 percent of the System's fund.

The Board and Investment Policy Statement (IPS) adopts the philosophy that the most effective risk control procedure is to adequately diversify the investments of the Fund among different asset classes with differing risk profiles. Diversification is achieved through providing a wide variety of investment classes in which to invest the System's Funds.



**Note 5: Deposit and Investment Risk**

The IPS sets the following allowable ranges and target asset allocations for the System's funds:

<b>Asset Class</b>	<b>Target</b>	<b>Allowable Range</b>
Domestic Equity (U.S. Stock)	40.0%	30%-50%
International Equity	15.0%	10%-20%
Other Equity (Private Equity)	7.5%	0%-10%
Core Fixed Income	5.0%	0%-20%
Global Fixed Income	5.0%	0%-15%
Other Fixed Income (Private Lending)	5.0%	0%-10%
Real Estate	15.0%	10%-30%
Timber	2.5%	0%-5%
Hedge Funds	5.0%	0%-10%
Cash & Cash Equivalents	0.0%	0%-5%

The Board has adopted an Investment Policy Statement (IPS) with a general investment objective to obtain a total rate of return commensurate with the Prudent Investor Rule and any other applicable statutes. Reasonable consistency of return and protection of assets against the inroads of inflation is paramount. Performance results will be compared over the long-term in the context of five years or more given interest rate fluctuations and volatility of securities markets.

The Board will employ investment professionals to oversee and invest the assets within the parameters allowed by the IPS and the agreements. The investment managers will have investment discretion over their mandates, including security selection, sector weightings and investment style, subject to certain constraints of the IPS.

In conjunction with these goals and guidelines are responsibilities of the investment committee, third party consultants, custodians and money managers. The IPS also outlines the review and control procedures that the Board will monitor for compliance.

**Note 5: Deposit and Investment Risk**

**INTEREST RATE RISK**

Interest rate risk is the risk that measures whether changes in interest rates will adversely affect the fair value of an investment. The System does not have a formal policy that limits investment maturities as a means of managing its exposure to fair value losses arising from increasing interest rates.

As of December 31, 2016, the System had the following investments and maturities:

Investment Type	Fair Value	Less Than 1 Year	1 to 6 Years	6 to 10 Years	Over 10 Years
Bonds	\$ 67,942,195	\$ 3,009,947	\$ 21,187,793	\$ 13,344,072	\$ 30,400,383

As of December 31, 2015, the System had the following investments and maturities:

Investment Type	Fair Value	Less Than 1 Year	1 to 6 Years	6 to 10 Years	Over 10 Years
Bonds	\$ 42,557,641	\$ 1,672,139	\$ 14,700,190	\$ 8,760,624	\$ 17,424,689

**CREDIT RISK**

Credit risk is the risk associated with an issuer or other counterparty to an investment that does not fulfill its obligations to the System. While the System has no formal investment policy regarding credit quality rating guidelines, the IPS allows investment managers full discretion in adopting investment strategies to deal with these risks and the portfolios are monitored quarterly by the investment committee.

**Note 5: Deposit and Investment Risk**

The quality ratings of investments in fixed income securities as described by nationally recognized statistical rating organizations at December 31, 2016, are as follows:

Quality Rating	Total Fair Value	International Securities	Corporate Bonds	Government Bonds
Aaa / AAA				
Aa1 / AA+	\$ 1,992,500		\$ 1,992,500	
Aa2 / AA				
Aa3 / AA-	4,564,579		4,564,579	
A1 / A+				
A2 / A	9,316,945		9,316,945	
A3 / A-	11,198,712		11,198,712	
Baa1 / BBB+	7,847,195		7,847,195	
Baa2 / BBB	9,633,728		9,633,728	
Baa3 / BBB-	2,033,942		2,033,942	
Ba1 / BB+				
Ba2 / BB				
Ba3 / BB-				
B1 / B+				
B2 / B				
B3 / B-				
Caa / CCC				
Ca / CC				
C and below				
Not Rated		\$35,905,897		
US Gov't Guaranteed	21,354,593			\$ 21,354,593
Cash & Equivalent	(169,211)	(169,211)		
<b>Total</b>	<b>\$ 67,772,983</b>	<b>\$ 35,736,686</b>	<b>\$ 46,587,601</b>	<b>\$ 21,354,593</b>



**Note 5: Deposit and Investment Risk**

The quality ratings of investments in fixed income securities as described by nationally recognized statistical rating organizations at December 31, 2015, are as follows:

Quality Rating	Total Fair Value	International Securities	Corporate Bonds	Government Bonds
Aaa / AAA				
Aa1 / AA+	\$ 2,401,880		\$2,401,880	
Aa2 / AA				
Aa3 / AA-	1,248,312		1,248,312	
A1 / A+				
A2 / A	4,947,745		4,947,745	
A3 / A-	5,044,812		5,044,812	
Baa1 / BBB+	7,660,480		7,660,480	
Baa2 / BBB	4,867,807		4,867,807	
Baa3 / BBB-	3,463,340		3,463,340	
Ba1 / BB+				
Ba2 / BB				
Ba3 / BB-				
B1 / B+				
B2 / B				
B3 / B-				
Caa / CCC				
Ca / CC				
C and below				
Not Rated	33,290,053	\$ 33,290,053		
US Gov't Guaranteed	12,923,264			\$ 12,923,264
Cash & Equivalent	(314,724)	(314,724)		
<b>Total</b>	<b>\$ 75,532,969</b>	<b>\$ 32,975,329</b>	<b>\$ 29,634,376</b>	<b>\$ 12,923,264</b>

**Note 5: Deposit and Investment Risk****FOREIGN CURRENCY RISK**

Foreign currency risk is the risk that occurs when changes in exchange rates adversely affect the fair value of an investment or a deposit. Although the System does not have a formal investment policy governing foreign currency risk, the System does manage its exposure to fair value loss by requiring international investment managers to maintain diversified portfolios to limit foreign currency risk.

The System holds investments in ADRs (American Depositary Receipts) which are not included in the schedule below since they are denominated in U.S. dollars and accounted for at fair market value.

The System's exposure to foreign currency risk as of December 31, 2016, is as follows:

**2016 Foreign Currency Risk**

Country	Non-Securities (1)	International Equities	Other (2)
Greece, Euro		\$ 39,321	
Netherlands, Euro		69,119	
Belgium, Euro			1,960,420
India, Rupee		108,878	
Israel, Shekel		468,203	
Taiwan, Dollar		116,760	
	\$ -	\$ 802,281	\$ 1,960,420

1 Represents cash and cash-equivalents.

2 Represents corporate bonds.

**Note 5: Deposit and Investment Risk**

The System's exposure to foreign currency risk as of December 15, 2015, is as follows:

**2015 Foreign Currency Risk**

Country	Non-Securities (1)	International Equities	Other (2)
Belgium, Euro			1,151,612
	\$ -	\$ -	\$ 1,151,612

1 Represents cash and cash-equivalents.

2 Represents corporate bonds.

**Note 6: Fair Market Measurement**

In accordance with GASB 72, the System categorizes the fair measurement of its investments within a fair value hierarchy as established by generally accepted accounting principles. Fair value measurements are classified as Level 1, Level 2 or Level 3, based on inputs utilized to establish fair values:

Level 1 inputs are based on quoted prices (unadjusted) in active markets for identical assets or liabilities in active markets that an entity can access at the measurement date.

Level 2 inputs (other than quoted prices included within Level 1) are observable for similar assets or liabilities.

Level 3 inputs are developed by the reporting entity based on unobservable inputs for an asset or liability.

The categorization of investments described below is based solely on the objectivity of the inputs used, to reflect relative reliability in the measurement of an investment's fair value, and does not reflect the level of risk associated with the investment.



**Note 6: Fair Value Measurement**

APRS investments have the following fair value measurements as of December 31, 2016.

## 2016 GASB 72 Fair Value Measurement

Investments by fair value level:	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Observable Inputs (Level 3)
<b>Short-Term Securities</b>				
Cash - STIF Account	26,332,523		26,332,523	
<b>Total</b>	<b>\$26,332,523</b>		<b>\$26,332,523</b>	
<b>Debt Securities (1)</b>				
Debt Securities	73,842,266		73,842,266	
<b>Total</b>	<b>\$73,842,266</b>		<b>\$73,842,266</b>	
<b>Equity Securities</b>				
US Denominated Equities	122,182,219	122,182,219		
<b>Total</b>	<b>\$122,182,219</b>	<b>\$122,182,219</b>		
<b>Pooled Funds</b>				
Domestic equity collective trust	159,451,780	159,451,780		
International equity collective trust	68,590,593	68,590,593		
Global bond collective trust	35,905,897		35,905,897	
Emerging markets collective trust	16,465,942	16,465,942		
International equity mutual fund	13,031,260	13,031,260		
<b>Total</b>	<b>\$293,445,472</b>	<b>\$257,539,575</b>	<b>\$35,905,897</b>	
<b>Total investments by fair value level</b>	<b>\$515,802,480</b>	<b>\$379,721,794</b>	<b>\$136,080,686</b>	
<b>Investments Measured at Level 3</b>				
Timber	24,563,697	a, b, c,		24,563,697
Real Estate	69,564,043	d, e, f, g, h, i, j, k, l, m, n,		69,564,043
Other Equity (Private Equity)	15,212,975	o, p, q, r, s, t,		15,212,975
Other Fixed Income (Private Lending)	31,138,820	u, v, w, x, y,		31,138,820
Hedge Funds	31,190,318	z		31,190,318
<b>Total</b>	<b>\$171,669,853</b>			<b>\$171,669,853</b>
<b>Total investments measured at fair value</b>	<b>\$687,472,333</b>			

(1) Includes: Commercial mortgage-backed securities, Corporate Bonds, Government mortgage-backed securities, Government agencies and Government Bonds. All held by one manager.

# 2016 Annual Report

## 2016 Financial Notes and Security Descriptions Footnotes:

		Liquidity	Notice
a) BTG Pactual 1, 2, 3 -	Actively managed diversified timber holdings located in the USA. The investment is in liquidation.	Illiquid	N/A
b) Capital Timberland Investments -	Actively managed diversified timber holdings located in Texas, USA.	Illiquid	N/A
c) Timbervest -	Actively managed real estate portfolio of environmental preservation and restoration projects located in the USA. This fund is near the end of its expected term.	Illiquid	N/A
d) RockSpring Land Funds -	Actively manage portfolio of real estate investments located in Texas, USA.	Illiquid	N/A
e) CB Richard Ellis Funds -	Actively manage value-added real estate portfolio of primarily equity real estate investments located in the USA. This fund is near the end of its expected term.	Illiquid	N/A
f) Sentinel Funds -	Actively manage value-added real estate portfolio of primarily equity real estate investments located in the USA. This fund is near the end of its expected term.	Illiquid	N/A
g) New Boston Funds -	Actively manage value-added real estate portfolio of primarily equity real estate investments located in the USA. This fund is near the end of its expected term.	Illiquid	N/A
h) VEF Advisors Funds -	Actively manage value-added real estate portfolio of primarily equity real estate investments located in the USA. This fund is near the end of its expected term.	Illiquid	N/A
i) Invesco Real Estate Funds -	Actively manage value-added real estate portfolio of primarily equity real estate investments located in the USA. This fund is near the end of its expected term.	Illiquid	N/A
j) Edison Investments (Jayhawk & Sycamore) -	Actively managed opportunistic and value-added real estate portfolio of primarily equity real estate investments located in the USA. The investment is in liquidation.	Illiquid	N/A
k) JP Morgan India Property Fund -	Actively managed opportunistic and value-added real estate portfolio of equity real estate investments located in India. This fund is near the end of its expected term.	Illiquid	N/A
l) Gainesville Land (formerly Vision Capital Partners) -	Actively managed portfolio of real estate investments located in the Georgia, USA.	Illiquid	N/A
m) FWAR Investments -	Actively managed portfolio of real estate investments located in the Arizona, USA. The investment is in liquidation.	Illiquid	N/A
n) Morgan Stanley Prime Property Fund -	Actively managed core portfolio of primarily equity real estate investments located in the USA.	Quarterly	90 days
o) LBC Credit Partners III -	Actively managed private investment fund of private loan investments located in the USA.	Illiquid	N/A
p) LBC Credit Partners IV -	Actively managed private investment fund of private loan investments located in the USA.	Illiquid	N/A
q) Providence Debt Fund III -	Actively managed private investment fund of private loan investments located in the USA.	Illiquid	N/A
r) Capital Point Partners -	Actively managed private investment fund of private loan investments located in the USA. This investment is in liquidation.	Illiquid	N/A
s) Capital Partners II -	Actively managed private investment fund of private loan investments located in the USA. This investment is in liquidation.	Illiquid	N/A
t) Capital Partners III -	Actively managed private investment fund of private loan investments located in the USA. This investment is in liquidation.	Illiquid	N/A
u) Huff Energy -	Actively managed portfolio of private energy investments located in the USA. The fund is nearing the end of its expected term.	Illiquid	N/A
v) Sail Venture I -	Actively managed private equity portfolio of venture capital investments located in the USA.	Illiquid	N/A
w) Sail Ventures II -	Actively managed private equity portfolio of venture capital investments located in the USA.	Illiquid	N/A
x) Sail Pre-Exit Acceleration Fund -	Actively managed private equity portfolio of venture capital investments located in the USA.	Illiquid	N/A
y) Excelsior Investors -	Actively managed private equity portfolio of private finance oriented investments located in the USA.	Illiquid	N/A
z) Double Eagle Capital Ace Fund -	Diversified fund of hedge funds with blending global macro, long/short equity and diversified credit strategies.	Quarterly	95 days



### **Note 7: Schedule of Investment Returns**

For the year ended December 31, 2016 and 2015 the annual money weighted rate of return on investments, net of investment expense, was 7.67 percent and -1.05 percent, respectively. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

### **Note 8: Contributions**

The System is funded by biweekly contributions from both employees and the City based on employee compensation, consisting of base pay and longevity pay. Under the provisions that were in effect during December 2016 and 2015, participants are required to contribute 13 percent of their compensation.

The City's required contribution rate for fiscal year 2016 was 21.313 percent. The City's required contribution rate for fiscal year 2015 was 21.63 percent prior to October 1, 2015, and became 21.313 percent on October 1 for the remainder of the year. The reduction was due to an actuarial analysis and adjustment related to the System's participation in the Proportionate Retirement Program, the cost for which must be paid by the City per state law.

Since September 1, 2003, a portion of the City's total contribution has been allocated to the Retiree Death Benefit Fund. The allocation rate for fiscal year 2016 was 0.147 percent. In fiscal year 2015 the rate was 0.141 percent prior to October 1, 2016, and became 0.147 percent on October 1 for the remainder of the year.

The City contribution rate is required by the state law governing the System and may be changed by amendment made by the Legislature of the State of Texas. The member contribution rate must be at least 13 percent in accordance with state law. The member contribution rate may be changed by the Legislature of the State of Texas or by appropriate actions of the Board and the participating members in accordance with state law.



**Note 8: Contributions**

While contribution rates are not actuarially determined, state law requires that each plan of benefits adopted by the System must be approved by a qualified actuary. The actuary certifies that the contribution commitment by the police officers and the City provides an adequate financing arrangement at the time any change is made. Using the entry age actuarial cost method, the System's normal cost is determined as a percentage of payroll. The excess of the total contribution rate over the normal cost rate is used to amortize the System's unfunded actuarial accrued liability. The amortization period is determined using the open, level percentage of payroll method. Based on the actuarial valuation as of December 31, 2016 and the plan provisions recognized in the valuation, the normal cost is 21.724 percent of pay and the amortization period is 27.3 years. Based on the actuarial valuation as of December 31, 2015 and the plan provisions recognized in the valuation, the normal cost was 22.43 percent of pay and the amortization period was 31.3 years.

**Note 9: Commitments and Contingencies**

The System's investments in real estate and partnership interests are included in the table appearing in Note 5. In connection with those investments, the System has remaining commitments as of December 31, 2016 and 2015 of approximately \$25,271,803 million and \$18,122,759 million, respectively, pursuant to the terms of the respective interests.

At December 31, 2016 and 2015, the total accumulated lump sum benefit due to forward DROP participants was \$8,087,876 and \$5,085,119 respectively.

At December 31, 2016 and 2015, the total accumulated lump sum benefit due to PROP participants was \$29,011,929 and \$27,659,183, respectively.

**Note 10: Net Pension Liability of the Sponsor**

The components of the Net Pension Liability of the Sponsor on December 31, 2016 were as follows:

Total Pension Liability	\$1,106,189,208
Plan Fiduciary Net Position Sponsor's	<u>\$ (686,020,262)</u>
Net Pension Liability	<u>\$ 420,168,946</u>
Plan Fiduciary Net Position as a percentage of Total Pension Liability	<u>62.02%</u>

## Actuarial Assumptions:

The Total Pension Liability was determined by an actuarial valuation as of December 31, 2016 using the following actuarial assumptions:

Inflation	3.0%
Salary Increases	Services Based
Discount Rate	7.70%
Investment Rate of Return	7.70%

Mortality rates (all lives) were based on the RP-2000 Combined Healthy without projection - Sex Distinct. The actuary believes this sufficiently accommodates expected mortality improvements.

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 expenses 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.

**Note 10: Net Pension Liability of the Sponsor**

The components of the Net Pension Liability of the Sponsor on December 31, 2015 were as follows:

Total Pension Liability	\$1,028,909,430
Plan Fiduciary Net Position Sponsor's	<u>\$ (644,174,137)</u>
Net Pension Liability	<u>\$ 384,735,293</u>
Plan Fiduciary Net Position as a percentage of Total Pension Liability	<u>62.61%</u>

## Actuarial Assumptions:

The Total Pension Liability was determined by an actuarial valuation as of December 31, 2015 using the following actuarial assumptions:

Inflation	3.25%
Salary Increases	Services Based
Discount Rate	7.80%
Investment Rate of Return	7.80%

Mortality rates (all lives) were based on the RP-2000 Combined Healthy without projection- Sex Distinct. Based on a study of over 650 public safety funds, this table reflects a 10 percent, margin for future mortality improvements.

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 expenses 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.



**Note 10: Net Pension Liability of the Sponsor**

Best estimates of arithmetic real rates of return for each major asset class included in the Pension Plan's target asset allocation as of December 31, 2016 are summarized in the following table:

Asset Class	Long Term Expected Real Rate of Return
Domestic Equity	7.50%
International Equity	8.50%
Domestic Fixed Income	2.50%
Global Fixed Income	3.50%
Real Estate	4.50%
Timber	2.50%
Private Equity	7.50%
Hedge Funds	5.00%

**Discount Rate:**

The Discount Rate used to measure the Total Pension Liability was 7.70 percent. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate of 13.00 percent of compensation and that plan sponsor contributions will be made at the current contribution rate of 21.313 percent of total payroll. Based on those assumptions, the pension plan's Fiduciary Net Position was projected to be available to make all 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.

	1% Decrease	Current Discount Rate	1% Increase
Sponsor's Net Pension Liability	\$ 543,431,167	\$ 420,168,946	\$ 315,660,846

**Note 10: Net Pension Liability of the Sponsor**

Best estimates of arithmetic real rates of return for each major asset class included in the Pension Plan's target asset allocation as of December 31, 2015 are summarized in the following table:

Asset Class	Long Term Expected Real Rate of Return
Domestic Equity	7.50%
International Equity	8.50%
Domestic Fixed Income	2.50%
Global Fixed Income	3.50%
Real Estate	4.50%
Timber	2.50%
Alternative	2.50%
Cash	0.00%

**Discount Rate:**

The discount rate used to measure Total Pension liability was 7.8 percent. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate of 13.00 percent of compensation and that plan sponsor contributions will be made at the current contribution rate of 21.313 percent of total payroll. Based on those assumptions, the pension plan's Fiduciary Net Position was projected to be available to make all 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.

	1% Decrease	Current Discount Rate	1% Increase
	6.80%	7.80%	8.80%
Sponsor's Net Pension Liability	\$ 500,406,758	\$ 384,735,293	\$ 286,545,356

DISCLOSURES IN  
ACCORDANCE WITH GASB  
STATEMENT NO. 67  
REQUIRED SUPPLEMENTARY  
INFORMATION



SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS  
Last 10 Years

	12/31/2016	12/31/2015
Total Pension Liability		
Service Cost	32,989,949	32,138,760
Interest	80,845,879	76,999,651
Changes of benefit terms	-	(4,079,852)
Differences between Expected and Actual Experience	7,454,959	(6,318,435)
Changes of assumptions	5,148,318	3,903,538
Contributions - Buy Back	1,668,174	4,648,271
Benefit Payments, including Refunds of Employee Contributions	(50,827,501)	(50,005,439)
Net Change in Total Pension Liability	77,279,778	57,286,494
Total Pension Liability - Beginning	1,028,909,430	971,622,936
Total Pension Liability - Ending (a)	<u>\$1,106,189,208</u>	<u>\$1,028,909,430</u>
Plan Fiduciary Net Position		
Contributions - Employer	33,814,182	33,239,271
Contributions - Employee	20,623,125	20,060,610
Contributions - Buy Back	1,668,174	4,648,271
Net Investment Income	37,964,881	(321,704)
Benefit Payments, including Refunds of Employee Contributions	(50,827,501)	(50,005,439)
Administrative Expense	(1,396,736)	(1,465,939)
Net Change in Plan Fiduciary Net Position	41,846,125	6,155,070
Plan Fiduciary Net Position - Beginning	644,174,137	638,019,067
Plan Fiduciary Net Position - Ending (b)	<u>\$ 686,020,262</u>	<u>\$ 644,174,137</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 420,168,946</u>	<u>\$ 384,735,293</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	62.02%	62.61%
Covered Employee Payroll	\$ 158,655,196	\$ 154,243,493
Net Pension Liability as a percentage of Covered Employee Payroll	264.83%	249.43%

**Notes to Schedule:***Changes of benefit terms:*

For measurement date 12/31/2015, amounts reported as changes of benefit terms resulted from approved changes by the Board to the design of the Forward-DROP program.

For members with less than 23 years of APRS service as of February 17, 2016, the following changes were made for future retirees who elect to utilize the Forward-DROP:

- Member contributions will continue to be required during the DROP participation period, but these contributions will be retained by the System.
- DROP balances will no longer receive interest crediting during the DROP participation period.
- A fee/charge will be applied on a graduated scale during the DROP participation period based on the schedule on the next page. Please note this fee/charge will no longer apply once the member exits the DROP.

GASB 67

<u>Year of DROP Participation</u>	<u>Fee/Charge Applied to Monthly Benefit in DROP</u>
1	25%
2	20%
3	15%
4	10%
5	5%
6	5%
7	5%

Please note members who had completed 23 or more years of APRS service as of February 17, 2016 and elect to utilize Forward-DROP will be allowed the option to choose the previous 5-year DROP (not subject to the changes described) or the 7-year DROP as described above.

*Changes of assumptions:*

For measurement date 12/31/2016, amounts reported as changes of assumptions resulted from:

- The investment return assumption has been decreased from 7.80% to 7.70% per year compounded annually, net of all expenses.
- The core inflation rate assumption has been decreased from 3.25% to 3.00% per year.
- The general wage inflation rate assumption has been decreased from 3.50% to 3.25% per year.
- The assumed rates of salary increase have been amended at most service points.
- The payroll growth assumption has been increased from 3.50% to 4.00% per year.

For measurement date 12/31/2015, amounts reported as changes of assumptions resulted from:

- The investment return assumption has been decreased from 7.90% to 7.80% per year compounded annually, net of all expenses.
- The withdrawal rate table was modified slightly.

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS  
Last 10 Years

	<u>12/31/2014</u>	<u>12/31/2013</u>
Total Pension Liability		
Service Cost	30,253,628	28,769,060
Interest	72,442,934	68,919,471
Changes of benefit terms	(11,015,618)	-
Differences between Expected and Actual Experience	-	-
Changes of assumptions	14,137,496	-
Contributions - Buy Back	2,207,398	-
Benefit Payments, including Refunds of Employee Contributions	(45,403,126)	(42,825,265)
Net Change in Total Pension Liability	<u>62,622,712</u>	<u>54,863,266</u>
Total Pension Liability - Beginning	<u>909,000,224</u>	<u>854,136,958</u>
Total Pension Liability - Ending (a)	<u>\$971,622,936</u>	<u>\$909,000,224</u>
Plan Fiduciary Net Position		
Contributions - Employer	32,399,740	31,160,764
Contributions - Employee	19,457,407	19,467,960
Contributions - Buy Back	2,207,398	-
Net Investment Income	35,574,317	49,524,150
Benefit Payments, including Refunds of Employee Contributions	(45,403,126)	(42,825,265)
Administrative Expense	(1,327,071)	(1,114,856)
Net Change in Plan Fiduciary Net Position	<u>42,908,665</u>	<u>56,212,753</u>
Plan Fiduciary Net Position - Beginning	<u>595,110,402</u>	<u>538,897,649</u>
Plan Fiduciary Net Position - Ending (b)	<u>\$638,019,067</u>	<u>\$595,110,402</u>
Net Pension Liability - Ending (a) - (b)	<u>\$333,603,869</u>	<u>\$313,889,822</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	65.67%	65.47%
Covered Employee Payroll	\$149,790,754	\$144,089,468
Net Pension Liability as a percentage of Covered Employee Payroll	222.71%	217.84%

**Notes to Schedule:***Changes of benefit terms:*

For measurement date 12/31/2014 amounts reported as changes of benefit terms resulted from:

- Effective February 18, 2015, eliminate the opportunity to purchase permissive service in conjunction with utilizing the Forward or Retro-DROP.
- Effective February 18, 2015, permissive service credit factors shall be determined based on an interest rate that is 50 basis points lower than the valuation assumption and generational mortality.
- Effective April 1, 2015, eliminate Retro-DROP for members with less than 23 years of APRS service.
- Effective August 1, 2015, the Forward DROP interest rate will be set annually in the same manner as the PROP interest rate, except for those with 23 years of APRS service as of July 31, 2015 who will not be affected.
- New hires beginning February 1, 2016 will be required to pay the full actuarial cost for purchase of military service. All others will continue to pay 25% of the actuarial cost, which will be based on an interest rate that is 50 basis points lower than the valuation assumption and generational mortality.



## GASB 67

### *Changes of assumptions:*

For measurement date 12/31/2014, amounts reported as changes of assumptions resulted from:

- The investment return assumption has been decreased from 8.00% to 7.90% per year compounded annually, net of all expenses.
- The expected increase in salary due to general wage increases has been lowered from 3.75% to 3.50% per year.
- For members that enter the system prior to age 33, the retirement rates have been increased by 25.0% above their current level. Additionally, some slight modifications have been made to the retirement rates due to anticipated future PRP usage (as described in our April 2015 analysis).
- The annual assumed interest rate credited to PROP accounts has been decreased from 4.00% to 2.25% per year.
- The disability rates have been reduced in half.

SCHEDULE OF CONTRIBUTIONS  
Last 10 Years

	12/31/2016	12/31/2015	12/31/2014	12/31/2013
Actuarially Determined Contribution	N/A	N/A	N/A	N/A
Contributions in relation to the Actuarially Determined Contributions	N/A	N/A	N/A	N/A
Contribution Deficiency (Excess)	N/A	N/A	N/A	N/A
Covered Employee Payroll	\$158,655,196	\$154,243,493	\$ 149,790,754	\$144,089,468
Contributions as a percentage of Covered Employee Payroll	21.31%	21.55%	21.63%	21.63%

Notes to Schedule

Methods and assumptions used to determine liabilities:

Mortality Rates - All Lives:	RP-2000 Combined Healthy without projection – Sex Distinct. We believe this sufficiently accommodates expected mortality improvements.
Interest Rate:	7.80% per year, compounded annually, net of all expenses. This is supported by the asset allocation of the trust and the long-term expected return by asset class.
Core inflation:	3.25% per year. This is reasonable based upon long-term expectations.
Payroll Growth:	3.50% per year for amortization of the Unfunded Actuarial Accrued Liability. This is reasonable based upon long-term expectations.
Administrative Expenses (PRP):	0.017% of payroll for assumed additional administrative expenses for participation in the Proportionate Retirement Program.
DROP Election:	75% of those assumed to retire who are eligible for at least a 12-month DROP lump sum will make such an election (RETRO) or will have made such an election (FORWARD). See following tables for allocation between RETRO and FORWARD. This is reasonable based upon long-term expectations.
DROP Period Election:	Members elect the maximum period eligible. This is reasonable based upon long-term expectations.
PROP Investment Accounts:	75% retiring in DROP will elect to leave their lump sum in the System until age 60. Average annual rate credited to the PROP accounts will be 2.25%. This is reasonable based upon long-term expectations.
Marital Status:	85% of actives are assumed to be married at time of benefit commencement. Females are assumed to be 3 years younger than Males. This is reasonable based upon long-term expectations.
Funding Method:	Entry Age Normal Actuarial Cost Method.
Actuarial Asset Method:	All assets are valued at market value with an adjustment made to uniformly spread actuarial investment gains and losses (as measured by actual market value investment return against expected market value investment return) over a five-year period. The asset value of the Retiree Death Benefit Fund is then subtracted to determine the Actuarial Value of Assets.
Retirement Rates:	See table on next page. The assumed rates of retirement were approved in conjunction with the 2015 review of the actuarial assumptions and methods.
Termination Rates:	See table on next page. The assumed rates of termination were approved in conjunction with the 2016 review of the actuarial assumptions and methods.
Disability Rates:	See table on next page. 55% of disablements are assumed to be service related. The assumed rates of disablement were approved in conjunction with the 2015 review of the actuarial assumptions and methods.
Salary Increases:	See table on next page. These are reasonable based upon long-term expectations.
Pre-Retirement Death Payment Form:	Married: Joint and 100% to Survivor. Single: 15-Year Certain and Life Annuity.

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Retirement Rates:

For Entry Ages Under 32 <sup>1</sup>			
APRS Service	22 & Under	23-27	28-32
0-22	0.0625	0.1250	0.1250
23	0.1875	0.1875	0.28125
24	0.1250	0.1250	0.1875
25	0.1250	0.1250	0.1875
26	0.1875	0.1875	0.3125
27	0.1875	0.1875	0.3125
28	0.3125	0.3125	0.3125
29	0.3125	0.3125	0.3750
30	0.3750	0.3750	0.5000
31	0.3750	0.3750	0.6250
32	0.3750	0.3750	1.00 <sup>2</sup>
33	0.3750	0.3750	
34	0.5000	0.5000	
35	0.5000	0.6250	
36	0.5000	0.6250	
37	0.6250	1.00 <sup>2</sup>	
38	0.6250		
39	0.6250		
40	0.6250		
41	0.6250		
42	1.00 <sup>2</sup>		



GASB 67

Retirement Rates:

For Entry Ages 33 and Above <sup>3</sup>			
Age	33-37	38-42	43 & Over
33-37	0.05		
38-42	0.05	0.10	
43-47	0.05	0.10	0.10
48	0.05	0.10	0.10
49	0.05	0.10	0.10
50	0.05	0.10	0.10
51	0.05	0.10	0.10
52	0.20	0.10	0.10
53	0.35	0.10	0.10
54	0.75	0.10	0.10
55	0.20	0.10	0.10
56	0.25	0.10	0.10
57	0.30	0.10	0.10
58	0.35	0.10	0.10
59	0.50	0.10	0.10
60	1.00	0.50	0.10
61		0.35	0.10
62		0.35	0.80
63		0.35	0.40
64		0.35	0.40
65		1.00	1.00

<sup>1</sup> Rates are based on APRS service only and apply after a Member is eligible for retirement with combined APRS and Proportionate Retirement Program (PRP) service. Entry ages are determined based on APRS service only.

<sup>2</sup> 100% retirement rate will be effective at age 60, if earlier.

<sup>3</sup> Rates are based on age and apply after a Member is eligible for retirement with combined APRS and PRP service. Entry ages are determined based on APRS service only.

Termination Rates:

Combined Years of Service <sup>1</sup>	Probability of Termination During Year
0	0.05
1	0.02
2	0.02
3	0.02
4	0.02
5	0.02
6	0.02
7	0.02
8	0.02
9	0.02
10	0.01
11	0.01
12	0.005
13	0.005
14	0.005
15 & Above	0

<sup>1</sup> APRS service combined with Proportionate Retirement Program service.

GASB 67

Disability Rates:

Age	Probability of Disablement During Year
20	0.00007
22	0.00008
24	0.00009
26	0.000105
28	0.000125
30	0.000155
32	0.000200
34	0.000245
36	0.000270
38	0.000310
40	0.000460
42	0.000660
44	0.000865
46	0.001275
48	0.001670
50	0.001895
52	0.002020
54	0.002280
56	0.002660
58	0.003300
60	0.004555
62 & Above	0

## GASB 67

Salary Increases:

Years of Service	Increase in Salary <sup>1</sup>
0	18.0%
1	11.2%
2	5.8%
3	0.9%
4	0.9%
5	7.1%
6	0.5%
7	0.5%
8	0.5%
9	7.1%
10	0.3%
11	0.3%
12	0.3%
13	7.1%
14	0.2%
15	7.2%
16	0.2%
17	0.1%
18	0.1%
19	0.1%
20	0.1%
21	0.1%
22	0.1%
23	0.1%
24	0.1%
25 & Above	0.0%

<sup>1</sup> Expected increases in salary as shown above are in addition to 3.50% increase per year due to general wage increases.



GASB 67

Retirement Option Election:

(Members with less than 23 years of APRS service on April 1, 2015)

Service at Termination of Employment	No DROP Elected <sup>1</sup>	FORWARD DROP Elected
23 or less	100%	0%
24	25	75
25	25	75
26	25	75
27	25	75
28	25	75
29	25	75
30	25	75
31	25	75
32	25	75
33	25	75
34	25	75
35	25	75
36	25	75
37	25	75
38	25	75
39	25	75
40	25	75
41	25	75
42	25	75

<sup>1</sup> Police officers elect a type of service retirement benefit that does not include payment of a lump sum distribution

SCHEDULE OF INVESTMENT RETURNS  
Last 10 Years

	<u>12/31/2016</u>	<u>12/31/2015</u>	<u>12/31/2014</u>	<u>12/31/2013</u>
Annual Money-Weighted Rate of Return Net of Investment Expense	5.88%	-0.05%	5.71%	8.90%

# ACTUARIAL SECTION



AUSTIN POLICE  
RETIREMENT SYSTEM

ACTUARIAL VALUATION  
AS OF DECEMBER 31, 2016



July 26, 2017

Ms. Pattie Featherston, Executive Director  
Austin Police Retirement System  
2520 South IH 35, Suite 100  
Austin, TX 78704

Re: Austin Police Retirement System

Dear Ms. Featherston:

We are pleased to present to the Board this report of the annual actuarial valuation of the Austin Police Retirement System. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits and to develop the appropriate funding requirements for the applicable plan year(s). Please note that this valuation may not be applicable for any other purposes.

The valuation has been conducted in accordance with generally accepted actuarial principles and practices, including the applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board, and reflects applicable laws and regulations issued to date at the state and federal level. In our opinion, the assumptions used in this valuation, as adopted by the Board of Trustees, represent reasonable expectations of anticipated plan experience. Future actuarial measurements may differ significantly from the current measurements presented in this report for a variety of reasons including: changes in applicable laws, changes in plan provisions, changes in assumptions, or plan experience differing from expectations.

In conducting the valuation, we have relied on personnel, plan design, financial reports, and asset information supplied by the System, and the actuarial assumptions and methods described in the Actuarial Assumptions section of this report. While we cannot verify the accuracy of all this information, the supplied information was reviewed for consistency and reasonableness. As a result of this review, we have no reason to doubt the substantial accuracy of the information and believe that it has produced appropriate results. This information, along with any adjustments or modifications, is summarized in various sections of this report.

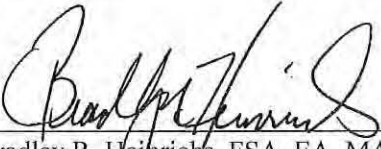
The undersigned is familiar with the immediate and long-term aspects of pension valuations, and meets the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. All of the sections of this report are considered an integral part of the actuarial opinions.

To our knowledge, no associate of Foster & Foster Inc. working on valuations of the program has any direct financial interest or indirect material interest in the City of Austin, nor does anyone at Foster & Foster Inc. act as a member of the Board of Trustees of the Austin Police Retirement System. Thus, there is no relationship existing that might affect our capacity to prepare and certify this actuarial report.

If there are any questions, concerns, or comments about any of the items contained in this report, please contact me at 239-433-5500.

Respectfully submitted,

Foster & Foster Inc.

By:   
Bradley R. Heinrichs, FSA, EA, MAAA  
Enrolled Actuary #17-6901

BRH/lke

Enclosures



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## SUMMARY OF REPORT

The annual actuarial valuation of the Austin Police Retirement System, performed as of December 31, 2016, has been completed and the results are presented in this Report. The pension costs, compared with those developed in the December 31, 2015 actuarial valuation report, are as follows:

<u>Valuation Date</u>	<u>New Assumptions</u> <u>12/31/2016</u>	<u>Old Assumptions</u> <u>12/31/2016</u>	<u>Old Assumptions</u> <u>12/31/2015</u>
Current Normal Cost Rate	21.724%	22.411%	22.430%
% of Payroll Under Assumed Ret. Age			
<i>Includes 0.017% of payroll for assumed additional administrative expenses for participation in the Proportionate Retirement Program</i>			
Actuarial Accrued Liability (AAL)	\$1,106,505,413	\$1,099,742,044	\$1,036,118,138
Actuarial Value of Assets (AVA)	\$732,020,913	\$732,020,913	\$689,767,838
Unfunded Actuarial Accrued Liability (UAAL = AAL - AVA)	\$374,484,500	\$367,721,131	\$346,350,300
Funded Ratio (AVA / AAL)	66.2%	66.6%	66.6%
Amortization Period	27.3 years	32.7 years	31.3 years
Expected City Contribution Rate	21.313%	21.313%	21.313%
Expected Member Contribution Rate	13%	13%	13%
Total Expected Contribution Rate	34.313%	34.313%	34.313%
City 20-Year Funding Cost <sup>1</sup>	24.407%		
City 30-Year Funding Cost <sup>2</sup>	20.566%		
City 40-Year Funding Cost <sup>1</sup>	18.765%		

<sup>1</sup> The Texas Pension Review Board Guidelines for Actuarial Soundness state that funding should be adequate to amortize the UAAL over a period not to exceed 40 years, with 15-25 years being a more preferable target.

<sup>2</sup> Per Section 802.101(a) of the Texas Government Code, the actuarial valuation must include a recommended contribution rate needed for the system to achieve and maintain an amortization period that does not exceed 30 years.


During the past year, the plan has realized net unfavorable actuarial experience. The primary component of actuarial loss was attributable to a 5.33% investment return (Actuarial Asset basis) which fell short of the 7.80% assumption.

Additionally, the Board of Trustees approved a number of actuarial assumption changes, as discussed on the following page. As shown, this resulted in a 5.4 year reduction in the required amortization period. The specific details of the impact associated with implementing these changes are displayed in the comparative summary section of this report.

The balance of this Report presents additional details of the actuarial valuation and the general operation of the Fund. The undersigned would be pleased to meet with the Board of Trustees in order to discuss the Report and answer any pending questions concerning its contents.

Respectfully submitted,

FOSTER & FOSTER INC.

By:   
Bradley R. Heinrichs, FSA, EA, MAAA

By:   
Drew D. Ballard, EA, MAAA



## CHANGES SINCE PRIOR VALUATION

### 1. Benefit Provisions

There have been no changes in benefits since the prior valuation.

### 2. Actuarial Assumptions/Methods

As approved by the Board of Trustees, there have been multiple changes to the actuarial assumptions since the prior valuation, as detailed below.

- The investment return assumption has been decreased from 7.80% to 7.70% per year compounded annually, net of all expenses.
- The core inflation rate assumption has been decreased from 3.25% to 3.00% per year
- The general wage inflation rate assumption has been decreased from 3.50% to 3.25% per year
- The assumed rates of salary increase have been amended at most service points
- The payroll growth assumption has been increased from 3.50% to 4.00% per year

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS  
(Exclusive of Retiree Death Benefit Fund)

Valuation Date	New Assums <u>12/31/2016</u>	Old Assums <u>12/31/2016</u>	Old Assums <u>12/31/2015</u>
<b>A. Participant Data</b>			
Actives	1,837	1,837	1,761
Service Retirees + DROP	757	757	711
Beneficiaries	53	53	49
QDRO	37	37	38
Disability Retirees	2	2	3
Terminated Vested	36	36	41
<b>Total</b>	<u>2,722</u>	<u>2,722</u>	<u>2,603</u>
Total Annual Payroll	163,894,324	163,894,324	155,832,755
Payroll Under Assumed Ret. Age	158,538,425	158,538,425	151,566,341
<b>Annual Rate of Payments to:</b>			
Service Retirees + DROP	50,142,738	50,142,738	46,036,724
Beneficiaries	2,271,558	2,271,558	2,109,280
QDRO	534,344	534,344	548,246
Disability Retirees	63,581	63,581	103,149
Terminated Vested	868,486	868,486	808,433
<b>B. Assets</b>			
Actuarial Value	732,020,913	732,020,913	689,767,838
Market Value	686,020,262	686,020,262	644,174,137
<b>C. Liabilities</b>			
<b>Present Value of Benefits</b>			
<b>Active Members</b>			
Retirement Benefits	829,471,098	847,314,962	812,353,446
Termination Benefits	12,568,306	12,619,581	12,215,439
Death Benefits	14,455,022	14,683,541	14,006,808
Disability Benefits	8,615,341	8,723,494	8,544,443
Service Retirees + DROP	558,941,001	554,644,179	508,374,160
Beneficiaries	19,051,612	18,922,651	17,580,394
QDRO	5,630,547	5,584,309	5,782,283
Disability Retirees	740,654	733,958	1,223,245
Terminated Vested	3,288,212	3,229,703	3,502,746
<b>Total</b>	<u>1,452,761,793</u>	<u>1,466,456,378</u>	<u>1,383,582,964</u>

Valuation Date	New Assums <u>12/31/2016</u>	Old Assums <u>12/31/2016</u>	Old Assums <u>12/31/2015</u>
C. Liabilities - (Continued)			
Present Value of Future Salaries	1,638,289,042	1,682,596,405	1,596,134,543
Normal Cost (Entry Age Normal)			
Retirement Benefits	30,882,157	31,889,987	30,493,633
Termination Benefits	982,924	987,914	955,257
Death Benefits	705,391	719,085	688,393
Disability Benefits	567,048	573,182	557,899
Total Normal Cost	<u>33,137,520</u>	<u>34,170,168</u>	<u>32,695,182</u>
Present Value of Future Normal Costs	346,256,380	366,714,334	347,464,826
Actuarial Accrued Liability			
Retirement Benefits	503,058,934	501,117,031	484,457,250
Vested Benefits	4,927,801	4,789,472	4,763,100
Death Benefits	7,436,512	7,359,681	7,052,252
Disability Benefits	3,430,140	3,361,060	3,382,708
Inactives	587,652,026	583,114,800	536,462,828
Total Actuarial Accrued Liability	<u>1,106,505,413</u>	<u>1,099,742,044</u>	<u>1,036,118,138</u>
Unfunded Actuarial Accrued Liability (UAAL)	374,484,500	367,721,131	346,350,300
Funded Ratio (AVA/AL)	66.2%	66.6%	66.6%
D. Actuarial Present Value of Accrued Benefits			
Vested Accrued Benefits			
Inactives	587,652,026	583,114,800	536,462,828
Actives	165,703,677	160,915,923	148,820,963
Member Contributions	<u>165,422,045</u>	<u>165,422,045</u>	<u>157,316,626</u>
Total	918,777,748	909,452,768	842,600,417
Non-vested Accrued Benefits	27,970,004	27,422,054	36,191,343
Total Present Value Accrued Benefits	<u>946,747,752</u>	<u>936,874,822</u>	<u>878,791,760</u>
Funded Ratio (MVA/PVAB)	72.5%	73.2%	73.3%



COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS  
(Retiree Death Benefit Fund)

Valuation Date	New Assums <u>12/31/2016</u>	Old Assums <u>12/31/2016</u>	Old Assums <u>12/31/2015</u>
Present Value of Benefits			
Active Members	1,356,044	1,320,442	1,285,118
Retired and Terminated Vested Members	2,509,543	2,479,340	2,311,107
Total	<u>3,865,587</u>	<u>3,799,782</u>	<u>3,596,225</u>
Present Value of Future Normal Costs	508,863	505,050	485,114
Normal Cost	67,612	66,741	65,040
Actuarial Accrued Liability	3,356,724	3,294,732	3,111,111
Asset Value of Fund	1,084,516	1,084,516	929,148
Unfunded Actuarial Accrued Liability (UAAL)	2,272,208	2,210,216	2,181,963
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 19 years (as of 12/31/2016)			
% of Total Annual Payroll	0.102	0.104	0.104
Normal Cost (with interest)			
% of Total Annual Payroll	0.043	0.042	0.043
Total Required City Contribution Rate Allocated to the Retiree Death Benefit Fund			
% of Total Annual Payroll	0.145	0.146	0.147

\* The Retiree Death Benefit Fund was established effective September 1, 2003. The Fund operates as a separate account within the system that is used to advance fund and to pay the \$10,000 post-retirement lump sum death benefits for retirees.

GAIN/LOSS ANALYSIS  
(Exclusive of Retiree Death Benefit Fund)

a. Total Gain/(Loss)

1. UAAL, Beginning of Year	346,350,300
2. Normal Cost Applicable for Year	32,695,182
3. Interest on (1) and (2)	29,565,548
4. Contributions During Year	55,879,173
5. Interest on (4)	2,138,372
6. Expected UAAL, End of Year: (1)+(2)+(3)-(4)-(5)	350,593,485
7. Actual UAAL, End of Year (Before Changes)	367,721,131
Total Actuarial Gain/(Loss)	(17,127,646)

b. Gain/(Loss) on Assets

1. Actuarial Value of Assets (AVA), Beginning of Year	689,767,838
2. Contributions Less Benefit Payments	5,121,672
3. Expected Investment Earnings	53,997,886
4. Expected AVA, End of Year: (1)+(2)+(3)	748,887,396
5. Actual Actuarial Value of Assets, End of Year	732,020,913
Gain/(Loss) on Assets	(16,866,483)

c. Gain/(Loss) on Liabilities

1. Expected Actuarial Accrued Liability: a(6)+b(4)	1,099,480,881
2. Actual Actuarial Accrued Liability (Before Changes)	1,099,742,044
Gain/(Loss) on Liabilities	(261,163)

ACTUARIAL ASSUMPTIONS AND METHODS  
(Effective December 31, 2016)

<u>Mortality Rates – All Lives</u>	RP-2000 Combined Healthy without projection – Sex Distinct. We believe this sufficiently accommodates expected mortality improvements.
<u>Interest Rate</u>	7.70% per year, compounded annually, net of all expenses. This is supported by the asset allocation of the trust and the long-term expected return by asset class.
<u>Core Inflation</u>	3.00% per year. This is reasonable based upon long-term expectations.
<u>Payroll Growth</u>	4.00% per year for amortization of the Unfunded Actuarial Accrued Liability. This was approved in conjunction with the 2017 review of actuarial assumptions and methods.
<u>Administrative Expenses (PRP)</u>	0.017% of payroll for assumed additional administrative expenses for participation in the Proportionate Retirement Program.
<u>DROP Election</u>	75% of those assumed to retire who are eligible for at least a 12-month DROP lump sum will make such an election (RETRO) or will have made such an election (FORWARD). See following tables for allocation between RETRO and FORWARD. This is reasonable based upon long-term expectations.
<u>DROP Period Election</u>	Members elect the maximum period eligible. This is reasonable based upon long-term expectations.
<u>PROP Investment Accounts</u>	75% retiring in DROP will elect to leave their lump sum in the System until age 60. Average annual rate credited to the PROP accounts will be 2.25%. This is reasonable based upon long-term expectations.
<u>Marital Status</u>	85% of actives are assumed to be married at time of benefit commencement. Females are assumed to be 3 years younger than Males. This is reasonable based upon long-term expectations.
<u>Funding Method</u>	Entry Age Normal Actuarial Cost Method

Actuarial Asset Method

All assets are valued at market value with an adjustment made to uniformly spread actuarial investment gains and losses (as measured by actual market value investment return against expected market value investment return) over a five-year period. The asset value of the Retiree Death Benefit Fund is then subtracted to determine the Actuarial Value of Assets.

Retirement Rates

See following tables. The assumed rates of retirement were approved in conjunction with the 2015 review of the actuarial assumptions and methods.

Termination Rates

See following tables. The assumed rates of termination were approved in conjunction with the 2016 review of the actuarial assumptions and methods.

Disability Rates

See following tables. 55% of disablements are assumed to be service related. The assumed rates of disablement were approved in conjunction with the 2015 review of the actuarial assumptions and methods.

Salary Increases

See following tables. The assumed rates of salary increase were approved in conjunction with the 2017 review of actuarial assumptions and methods.

Pre-Retirement Death Payment Form

Married: Joint and 100% to Survivor  
Single: 15-Year Certain and Life Annuity



Retirement Rates

APRS Service	For Entry Ages Under 32 <sup>1</sup>			For Entry Ages 33 and Above <sup>3</sup>			
	22 & Under	23-27	28-32	AGE	33-37	38-42	43 & Over
<b>0-22</b>	0.0625	0.125	0.125	<b>33-37</b>	0.05		
<b>23</b>	0.1875	0.1875	0.28125	<b>38-42</b>	0.05	0.10	
<b>24</b>	0.125	0.125	0.1875	<b>43-47</b>	0.05	0.10	0.10
<b>25</b>	0.125	0.125	0.1875	<b>48</b>	0.05	0.10	0.10
<b>26</b>	0.1875	0.1875	0.3125	<b>49</b>	0.05	0.10	0.10
<b>27</b>	0.1875	0.1875	0.3125	<b>50</b>	0.05	0.10	0.10
<b>28</b>	0.3125	0.3125	0.3125	<b>51</b>	0.05	0.10	0.10
<b>29</b>	0.3125	0.3125	0.375	<b>52</b>	0.20	0.10	0.10
<b>30</b>	0.375	0.375	0.50	<b>53</b>	0.35	0.10	0.10
<b>31</b>	0.375	0.375	0.625	<b>54</b>	0.75	0.10	0.10
<b>32</b>	0.375	0.375	1.00 <sup>2</sup>	<b>55</b>	0.20	0.10	0.10
<b>33</b>	0.375	0.375		<b>56</b>	0.25	0.10	0.10
<b>34</b>	0.50	0.50		<b>57</b>	0.30	0.10	0.10
<b>35</b>	0.50	0.625		<b>58</b>	0.35	0.10	0.10
<b>36</b>	0.50	0.625		<b>59</b>	0.50	0.10	0.10
<b>37</b>	0.625	1.00 <sup>2</sup>		<b>60</b>	1.00	0.50	0.10
<b>38</b>	0.625			<b>61</b>		0.35	0.10
<b>39</b>	0.625			<b>62</b>		0.35	0.80
<b>40</b>	0.625			<b>63</b>		0.35	0.40
<b>41</b>	0.625			<b>64</b>		0.35	0.40
<b>42</b>	1.00 <sup>2</sup>			<b>65</b>		1.00	1.00

<sup>1</sup> Rates are based on APRS service only and apply after a Member is eligible for retirement with combined APRS and Proportionate Retirement Program (PRP) service. Entry ages are determined based on APRS service only.

<sup>2</sup> 100% retirement rate will be effective at age 60, if earlier.

<sup>3</sup> Rates are based on age and apply after a Member is eligible for retirement with combined APRS and PRP service. Entry ages are determined based on APRS service only.

Termination Rates

<u>Combined Years of Service<sup>1</sup></u>	<u>Probability of Termination During Year</u>
0	0.075
1	0.030
2	0.030
3	0.015
4	0.015
5	0.010
6	0.010
7	0.005
8	0.005
9	0.005
10	0.010
11	0.010
12	0.010
13	0.010
14	0.005
15 & Above	0.005

<sup>1</sup> APRS service combined with Proportionate Retirement Program service.

Disability Rates

<u>Age</u>	<u>Probability of Disablement During Year</u>
20	0.000070
22	0.000080
24	0.000090
26	0.000105
28	0.000125
30	0.000155
32	0.000200
34	0.000245
36	0.000270
38	0.000310
40	0.000460
42	0.000660
44	0.000865
46	0.001275
48	0.001670
50	0.001895
52	0.002020
54	0.002280
56	0.002660
58	0.003300
60	0.004555
62 & Above	0

### Salary Increases

<u>Years of Service</u>	<u>Increase in Salary<sup>1</sup></u>
0	22.5%
1	9.5
2	4.5
3	0.5
4	0.5
5	5.0
6	2.0
7	0.3
8	0.3
9	6.0
10	0.2
11	0.2
12	0.2
13	6.5
14	0.7
15	6.5
16+	0.0

<sup>1</sup> Expected increases in salary as shown above are in addition to 3.25% increase per year due to general wage increases.

Retirement Option Election

(Members with 23+ years of APRS service on April 1, 2015)

<u>Service at Termination of Employment</u>	<u>No DROP Elected</u> <sup>1</sup>	<u>RETRO DROP Elected</u>	<u>FORWARD DROP Elected</u>
23 or less	100%	0%	0%
24	25	75	0
25	25	65	10
26	25	60	15
27	25	55	20
28	25	55	20
29	25	55	20
30	25	55	20
31	25	55	20
32	25	55	20
33	25	60	15
34	25	65	10
35	25	75	0
36	25	75	0
37	25	75	0
38	25	75	0
39	25	75	0
40	25	75	0
41	25	75	0
42	25	75	0

<sup>1</sup> Police officers elect a type of service retirement benefit that does not include payment of a lump sum distribution.



Retirement Option Election

**(Members with less than 23 years of APRS service on April 1, 2015)**

<u>Service at Termination of Employment</u>	<u>No DROP Elected <sup>1</sup></u>	<u>FORWARD DROP Elected</u>
23 or less	100%	0%
24	25	75
25	25	75
26	25	75
27	25	75
28	25	75
29	25	75
30	25	75
31	25	75
32	25	75
33	25	75
34	25	75
35	25	75
36	25	75
37	25	75
38	25	75
39	25	75
40	25	75
41	25	75
42	25	75

<sup>1</sup> Police officers elect a type of service retirement benefit that does not include payment of a lump sum distribution.

## VALUATION NOTES

Total Annual Payroll is the annual rate of pay as of the valuation date of all active and Forward-DROP participants.

Payroll under Assumed Retirement Age is the annual rate of pay as of the valuation date of all active participants who are not subject to a 100% probability of retirement on the valuation date.

Present Value of Benefits is the single sum value on the valuation date of all future benefits to be paid to current Members, Retirees, Beneficiaries, Disability Retirees and Vested Terminations.

Entry Age Normal Cost Method - Under this method, the normal cost is the sum of the individual normal costs for all active participants. For an active participant, the normal cost is the participant's normal cost accrual rate, multiplied by the participant's current compensation. The funding span utilized in determination of the normal cost rate for each benefit is to the last age at which that benefit is payable.

(a) The normal cost accrual rate equals:

(i) the present value of future benefits for the participant, determined as of the participant's entry age, divided by

(ii) the present value of the compensation expected to be paid to the participant for each year of the participant's anticipated future service, determined as of the participant's entry age .

(b) In calculating the present value of future compensation, the salary scale is applied both retrospectively and prospectively to estimate compensation in years prior to and subsequent to the valuation year based on the compensation used for the valuation.

(c) The accrued liability is the sum of the individual accrued liabilities for all participants and beneficiaries. A participant's accrued liability equals the present value, at the participant's attained age, of future benefits less the present value at the participant's attained age of the individual normal costs payable in the future. A beneficiary's accrued liability equals the present value, at the beneficiary's attained age, of future benefits. The unfunded accrued liability equals the total accrued liability less the actuarial value of assets.

(d) Under this method, the entry age used for each active participant is the participant's age at the time he or she would have commenced participation if the plan had always been in existence under current terms, or the age as of which he or she first earns service credits for purposes of benefit accrual under the current terms of the plan.

STATEMENT OF FIDUCIARY NET POSITION  
DECEMBER 31, 2016

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Short Term Investments	23,014,505.90
Checking Account	2,233,501.25
Prepaid Expenses	7,664.67
Total Cash and Equivalents	25,255,671.82
Receivables:	
Member Contributions in Transit	408,847.22
Member Buy-Back Contributions	9,701.60
City Contributions	670,289.30
Investment Income	190,489.09
Total Receivable	1,279,327.21
Investments:	
Partnership Interests	46,928,956.00
Corporate Bonds	73,842,265.53
Corporate Stocks	379,721,794.22
International Government Securities	35,905,897.02
Real Estate Interests	91,458,472.98
Alternatives	33,282,424.13
Retiree Death Benefit Fund	1,084,516.46
Total Investments	662,224,326.34
Net Fixed Assets	740,036.59
Total Assets	689,499,361.96
<u>LIABILITIES</u>	
Payables:	
Refunds of Member Contributions	768,812.89
Other	2,710,287.07
Total Liabilities	3,479,099.96
NET POSITION RESTRICTED FOR PENSIONS	686,020,262.00



STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED DECEMBER 31, 2016  
Market Value Basis

ADDITIONS

Contributions:

Member	20,623,125.40	
Buy-Back	1,668,173.71	
City	33,092,668.17	
City for Proportionate Retirement Program	495,205.45	
City for Retiree Death Benefit	226,308.30	

Total Contributions 56,105,481.03

Investment Income:

Miscellaneous Income	4,067,810.47	
Net Realized Gain (Loss)	23,682,775.64	
Unrealized Gain (Loss)	8,082,022.81	
Net Increase in Fair Value of Investments	35,832,608.92	
Interest & Dividends	3,888,744.03	
Less Investment Expense <sup>1</sup>	(1,756,472.26)	

Net Investment Income 37,964,880.69

Total Additions 94,070,361.72

DEDUCTIONS

Distributions to Members:

Benefit Payments	45,590,933.78	
Lump Sum DROP Distributions	730,506.62	
Lump Sum PROP Distributions	3,439,890.58	
Retiree Death Benefits	70,000.00	
Refunds of Member Contributions	996,170.22	

Total Distributions 50,827,501.20

Administrative Expense 1,396,735.61

Total Deductions 52,224,236.81

Net Increase in Net Position 41,846,124.91

NET POSITION RESTRICTED FOR PENSIONS

Beginning of the Year 644,174,137.09

End of the Year 686,020,262.00

<sup>1</sup>Investment related expenses include investment advisory, custodial and performance monitoring fees.

ACTUARIAL ASSET VALUATION  
December 31, 2016

Actuarial Assets for funding purposes are developed by recognizing the total actuarial investment gain or loss for each Plan Year over a five year period. In the first year, 20% of the gain or loss is recognized. In the second year 40%, in the third year 60%, in the fourth year 80%, and in the fifth year 100% of the gain or loss is recognized. The actuarial investment gain or loss is defined as the actual return on investments minus the actuarial assumed investment return. Actuarial Assets shall not be less than 80% nor greater than 120% of Market Value of Assets.

Plan Year Ending	Gain/(Loss)	<u>Gains/(Losses) Not Yet Recognized</u>				
		Amounts Not Yet Recognized by Valuation Year				
		2017	2018	2019	2020	2021
12/31/2012	8,502,880	0	0	0	0	0
12/31/2013	4,991,349	998,269	0	0	0	0
12/31/2014	(13,701,378)	(5,480,551)	(2,740,274)	0	0	0
12/31/2015	(52,498,923)	(31,499,354)	(20,999,569)	(10,499,783)	0	0
12/31/2016	(13,879,414)	(11,103,531)	(8,327,648)	(5,551,766)	(2,775,882)	0
<b>Total</b>		<b>(47,085,167)</b>	<b>(32,067,491)</b>	<b>(16,051,549)</b>	<b>(2,775,882)</b>	<b>0</b>

Development of Investment Gain/Loss

Market Value of Assets, including Retiree Death Benefit Fund, 12/31/2015	644,174,137
Contributions Less Benefit Payments	5,277,980
Expected Investment Earnings*	50,447,559
Actual Net Investment Earnings	36,568,145
2017 Actuarial Investment Gain/(Loss)	<u>(13,879,414)</u>

\*Expected Investment Earnings =  $0.078 * 644,174,137 + [(1 + 0.078)^{0.5} - 1] * 5,277,980$

Development of Actuarial Value of Assets

(1) Market Value of Assets, including Retiree Death Benefit Fund, 12/31/2016	686,020,262
(2) Gains/(Losses) Not Yet Recognized	(47,085,167)
(3) Actuarial Value of Assets, 12/31/2016, (1) - (2)	<u>733,105,429</u>

(A) 12/31/2015 Actuarial Assets, including Retiree Death Benefit Fund: 690,696,986

(I) Net Investment Income:

1. Interest, Dividends and Misc Income	7,956,555
2. Realized Gains (Losses)	23,682,776
3. Change in Actuarial Value	8,488,972
4. Investment and Administrative Expenses	(3,153,208)
Total	<u>36,975,094</u>

(B) 12/31/2016 Actuarial Assets, including Retiree Death Benefit Fund: 733,105,429

Actuarial Assets Rate of Return =  $2I/(A+B-I)$ : 5.33%

Market Value of Assets Rate of Return: 5.65%

12/31/2016 Limited Actuarial Assets, including Retiree Death Benefit Fund: 733,105,429

12/31/2016 Limited Net Actuarial Assets, excluding Retiree Death Benefit Fund: 732,020,913

CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS  
 DECEMBER 31, 2016  
 Actuarial Asset Basis

REVENUES

Contributions:		
Member	20,623,125.40	
Buy-Back	1,668,173.71	
City	33,092,668.17	
City for Proportionate Retirement Program	495,205.45	
City for Retiree Death Benefit	226,308.30	
 Total Contributions		 56,105,481.03
 Earnings from Investments:		
Interest & Dividends	3,888,744.03	
Miscellaneous Income	4,067,810.47	
Net Realized Gain (Loss)	23,682,775.64	
Change in Actuarial Value	8,488,972.18	
 Total Earnings and Investment Gains		 40,128,302.32

EXPENDITURES

Distributions to Members:		
Benefit Payments	45,590,933.78	
Lump Sum DROP Distributions	730,506.62	
Lump Sum PROP Distributions	3,439,890.58	
Retiree Death Benefits	70,000.00	
Refunds of Member Contributions	996,170.22	
 Total Distributions		 50,827,501.20
 Expenses:		
Investment related <sup>1</sup>	1,756,472.26	
Administrative	1,396,735.61	
 Total Expenses		 3,153,207.87
 Change in Net Assets for the Year		 42,253,074.28
 Net Assets Beginning of the Year		 689,767,838.26
 Net Assets End of the Year <sup>2</sup>		 732,020,912.54

<sup>1</sup>Investment related expenses include investment advisory, custodial and performance monitoring fees.

<sup>2</sup>Net Assets may be limited for actuarial consideration.

VALUATION PARTICIPANT RECONCILIATION

1. Active lives

a. Number in prior valuation 12/31/2015	1761
b. Terminations	
i. Vested (partial or full) with deferred benefits	5
ii. Non-vested or full lump sum distribution received	17
c. Deaths	2
d. Disabled	0
e. Retired	41
f. DROP	15
g. Continuing participants	1681
h. New entrants	156
i. Total active life participants in valuation	1837

2. Non-Active lives (including beneficiaries receiving benefits)

	<u>Service Retirees, DROP Participants</u>	<u>Receiving Death Benefits</u>	<u>Receiving Disability Benefits</u>	<u>Receiving QDRO Benefits</u>	<u>Vested Deferred</u>	<u>Total</u>
a. Number prior valuation	711	49	3	38	41	842
b. In	57	4	0	0	7	68
c. Out	11	0	1	1	12	25
d. Number current valuation	757	53	2	37	36	885



STATISTICAL DATA

	<u>12/31/2014</u>	<u>12/31/2015</u>	<u>12/31/2016</u>
Actives	1,777	1,761	1,837
Average Current Age	40.0	40.1	39.8
Average Age at Employment	28.3	29.0	29.0
Average Past Service	11.7	11.1	10.8
Average Annual Salary	\$84,896	\$86,232	\$86,424

AGE AND SERVICE DISTRIBUTION

PAST SERVICE

AGE	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30+	Total
15 - 19	0	0	0	0	0	0	0	0	0	0	0	0
20 - 24	36	7	4	0	0	0	0	0	0	0	0	47
25 - 29	52	30	20	13	21	11	0	0	0	0	0	147
30 - 34	39	22	29	30	44	153	25	0	0	0	0	342
35 - 39	13	9	11	14	14	119	123	35	1	0	0	339
40 - 44	13	8	7	7	12	62	101	168	20	0	0	398
45 - 49	2	1	4	1	4	35	67	126	108	14	0	362
50 - 54	0	0	0	0	0	17	24	44	50	22	0	157
55 - 59	0	0	0	0	0	8	4	11	7	4	2	36
60 - 64	1	0	0	0	0	3	0	1	2	2	0	9
65+	0	0	0	0	0	0	0	0	0	0	0	0
Total	156	77	75	65	95	408	344	385	188	42	2	1,837

AUSTIN POLICE RETIREMENT SYSTEM  
SUMMARY OF BENEFIT PROVISIONS

<u>Creditable Service</u>	Total years and completed months (excluding a month in which service amount to fewer than 15 days) during which a Member makes contributions to the System.
<u>Earnings</u>	Base pay, plus longevity pay.
<u>Average Final Compensation</u>	Average Earnings for the highest 36 months over the last 120 months of service.
<u>Member Contributions</u>	13.0% of Earnings.
<u>City Contributions</u>	21.313%, effective October 1, 2015.
<u>Normal Retirement</u>	
Date	Earlier of age 62, age 55 and 20 years of Creditable Service, or 23 years of Creditable Service, regardless of age (excluding military service).
Benefit	3.20% of Average Final Compensation <u>times</u> Creditable Service.
Form of Benefit	Modified Cash Refund (options available).
<u>Vesting</u>	
Schedule	100% after 10 years of Creditable Service.
Benefit Amount	Member will receive his (her) accrued benefit payable at the Normal Retirement Date based upon actual Creditable Service prior to termination.
	Non-vested members receive a refund of accumulated contributions.
<u>Disability</u>	
Eligibility	Total and permanent as determined by the Board. Members must have 10 years of Creditable Service if the disability was non-service related.
Benefit	Accrued benefit at date of disability, but not less than 64% of Average Final Compensation for service related disablements.
Form of Benefit	Modified Cash Refund (options available).

Death Benefits

Before Retirement Eligibility

Twice the amount of the Member's accumulated contributions, subject to a minimum of \$10,000.

After Retirement Eligibility

Member's accrued benefit as of the date of death, payable based on optional annuity selected either by Member or beneficiary. Additionally, a lump sum death benefit is payable in the amount of \$10,000.

Retiree Death Benefit Fund

Effective September 1, 2003, a separate fund (funded as a portion of the City's contribution rate) was established to pay post-retirement lump sum death benefits. Effective September 1, 2007, the amount of these benefits was increased to \$10,000.

Cost of Living Adjustment

Eligibility

Normal Retirement.

Amount

Determined by the actuary if providing a COLA (not to exceed 6.0% per year) will not impair financial stability of the System. Post-Retirement benefit increases will automatically be provided when the System's benefit accrual rate is increased.

Proportionate Retirement Program

Effective September 1, 2009, the System and the City began participating in the statewide Proportionate Retirement Program (PRP). Service in other participating public employee retirement systems can be combined with service in the System to satisfy the System's requirements for service retirement eligibility and for eligibility for vested benefits of a terminated Member. The participating systems, in addition to the System, are the six statewide systems, the City of Austin Employees' Retirement System, and the systems for the City of El Paso employees.



Forward DROP

Eligibility	Completion of 23 years of Creditable Service, excluding military service.
Participation Period	Not to exceed 60 months. For members with less than 23 years of APRS service as of February 17, 2016, the maximum participation period was extended to 84 months.
Rate of Return	Effective August 1, 2015, equal to the PROP interest rate (currently 2.25%). Members with 23 years of APRS service as of July 31, 2015 will receive 5.00% interest credit per year. Additionally, members with less than 23 years of APRS service as of February 17, 2016 will not receive interest crediting while in DROP.
DROP Fee/Charge	For members with less than 23 years of APRS service as of February 17, 2016, a charge for DROP participation will be applied as shown below. The charge will only apply during the period of DROP participation.

<u>Year of DROP Participation</u>	<u>Fee/Charge</u>
1	25%
2	20
3	15
4	10
5	5
6	5
7	5

Form of Distribution	Cash lump sum (or rollover to PROP account) at termination of employment.
Miscellaneous	For members with less than 23 years of APRS service as of February 17, 2016, member contributions will continue to be required during the DROP participation period, but these contributions will be retained by the System.

Retro DROP

Eligibility

Completion of 23 years of Creditable Service, excluding military service, as of April 1, 2015. Members with less than 23 years as of this date will not be eligible to participate in Retro DROP.

Participation Period

Upon election to retroactively enter DROP, the Retro DROP period will not exceed 36 months.

Rate of Return

5.0%, compounded annually.

Form of Distribution

Cash lump sum (or rollover to PROP account) at termination of employment.

STATEMENT OF FIDUCIARY NET POSITION  
DECEMBER 31, 2016

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Short Term Investments	23,014,506
Checking Account	2,233,501
Prepaid Expenses	7,665
Total Cash and Equivalents	25,255,672
Receivables:	
Member Contributions in Transit	408,847
Member Buy-Back Contributions	9,702
City Contributions	670,289
Investment Income	190,489
Total Receivable	1,279,327
Investments:	
Partnership Interests	46,928,956
Corporate Bonds	73,842,266
Corporate Stocks	379,721,794
International Government Securities	35,905,897
Real Estate Interests	91,458,473
Alternatives	33,282,424
Retiree Death Benefit Fund	1,084,516
Total Investments	662,224,326
Net Fixed Assets	740,037
Total Assets	689,499,362
<u>LIABILITIES</u>	
Payables:	
Refunds of Member Contributions	768,813
Other	2,710,287
Total Liabilities	3,479,100
NET POSITION RESTRICTED FOR PENSIONS	686,020,262

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED DECEMBER 31, 2016  
Market Value Basis

ADDITIONS

## Contributions:

Member	20,623,125
Buy-Back	1,668,174
City	33,092,668
City for Proportionate Retirement Program	495,206
City for Retiree Death Benefit	226,308

Total Contributions	56,105,481
---------------------	------------

## Investment Income:

Miscellaneous Income	4,067,810
Net Realized Gain (Loss)	23,682,776
Unrealized Gain (Loss)	8,082,023
Net Increase in Fair Value of Investments	35,832,609
Interest & Dividends	3,888,744
Less Investment Expense <sup>1</sup>	(1,756,472)

Net Investment Income	37,964,881
-----------------------	------------

Total Additions	94,070,362
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DEDUCTIONS

## Distributions to Members:

Benefit Payments	45,590,934
Lump Sum DROP Distributions	730,507
Lump Sum PROP Distributions	3,439,890
Retiree Death Benefits	70,000
Refunds of Member Contributions	996,170

Total Distributions	50,827,501
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Administrative Expense	1,396,736
------------------------	-----------

Total Deductions	52,224,237
------------------	------------

Net Increase in Net Position	41,846,125
------------------------------	------------

## NET POSITION RESTRICTED FOR PENSIONS

Beginning of the Year	644,174,137
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End of the Year	686,020,262
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<sup>1</sup>Investment related expenses include investment advisory, custodial and performance monitoring fees.



NOTES TO THE FINANCIAL STATEMENTS  
(For the Year Ended December 31, 2016)

Plan Description

*Plan Administration*

The Plan is a single-employer defined benefit pension plan administered by the Plan's Board of Trustees comprised of:

- a. One council member designated by the city council;
- b. The city manager or the city manager's designee;
- c. The director of finance or the director's designee;
- d. Five police officer members elected by the police officer members of the system, each of whom serves for a term of four years;
- e. One legally qualified voter of the city, resident for the preceding five years, to be appointed by the police retirement board to serve for a term of four years and until the member's successor is duly selected and qualified.
- f. Two retired members to be elected by the retired members to serve for a term of four years, with the term of one member expiring each odd-numbered year.

*Plan Membership as of December 31, 2015:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	801
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	41
Active Plan Members	1,761
	2,603

*Benefits Provided*

The Plan provides retirement, termination, disability and death benefits.

Normal Retirement:

Date: Earlier of age 62, age 55 and 20 years of Creditable Service, or 23 years of Creditable Service, regardless of age (excluding military service).

Benefit: 3.20% of Average Final Compensation times Creditable Service.

Vesting:

Schedule: 100% after 10 years of Creditable Service.

Benefit Amount: Member will receive his (her) accrued benefit payable at the Normal Retirement Date based upon actual Creditable Service prior to termination.

Non-vested members receive a refund of accumulated contributions.

Disability:

Eligibility: Total and permanent as determined by the Board. Members must have 10 years of Creditable Service if the disability was non-service related.

Benefit accrued to date of disability but not less than 64% of Average Final Compensation for service related disabilities.

Death Benefits:

Before Retirement Eligibility: Twice the amount of the Member's accumulated contributions, subject to a minimum of \$10,000.

After Retirement Eligibility: Member's accrued benefit as of the date of death, payable based on optional annuity selected either by Member or beneficiary. Additionally, a lump sum death benefit is payable in the amount of \$10,000.

Retiree Death Benefit Fund:

Effective September 1, 2003, a separate fund (funded as a portion of the City's contribution rate) was established to pay post-retirement lump sum death benefits. Effective September 1, 2007, the amount of these benefits was increased to \$10,000.

Cost of Living Adjustment:

Eligibility: Normal Retirement.

Amount: Determined by the actuary if providing a COLA (not to exceed 6.0% per year) will not impair financial stability of the System. Post-Retirement benefit increases will automatically be provided when the System's benefit accrual rate is increased.

Proportionate Retirement Program:

Effective September 1, 2009, the System and the City began participating in the statewide Proportionate Retirement Program (PRP). Service in other participating public employee retirement systems can be combined with service in the System to satisfy the System’s requirements for service retirement eligibility and for eligibility for vested benefits of a terminated Member. The participating systems, in addition to the System, are the six statewide systems, the City of Austin Employees’ Retirement System, and the systems for the City of El Paso employees.

*Contributions*

Member Contributions: 13.0% of Earnings.

City Contributions: 21.313%, effective October 1, 2015.

*Investments*

*Investment Policy:*

The following was the Board's adopted asset allocation policy as of December 31, 2016:

Asset Class	Target Allocation
Domestic Equity	40.00%
International Equity	15.00%
Fixed Income (Core)	5.00%
Non-US Fixed Income	5.00%
Real Estate	15.00%
Timber	2.50%
Private Equity	12.50%
Hedge Funds	5.00%
Total	100.00%

*Concentrations:*

The Plan did not hold investments in any one organization that represent 5 percent or more of the Pension Plan's Fiduciary Net Position.

*Rate of Return:*

For the year ended December 31, 2016, the annual money-weighted rate of return on Pension Plan investments, net of Pension Plan investment expense, was 5.88 percent.

The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

*Deferred Retirement Option Program*

Forward DROP:

Eligibility: Members with completion of 23 years of Creditable Service, excluding military service.

Participation Period: Not to exceed 60 months. For members with less than 23 years of APRS service as of February 17, 2016, the maximum participation period was extended to 84 months.

Rate of Return: Effective August 1, 2015, equal to the PROP interest rate (currently 2.25%). Members with 23 years of APRS service as of July 31, 2015 will receive 5.00% interest credit per year. Additionally, members with less than 23 years of APRS service as of February 17, 2016 will not receive interest crediting while in DROP.

DROP Fee/Charge: For members with less than 23 years of APRS service as of February 17, 2016, a charge for DROP participation will be applied as shown below. The charge will only apply during the period of DROP participation.

Year of DROP Participation	Fee/Charge
1	25%
2	20%
3	15%
4	10%
5	5%
6	5%
7	5%

Miscellaneous: For members with less than 23 years of APRS service as of February 17, 2016, member contributions will continue to be required during the DROP participation period, but these contributions will be retained by the System.

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### Retro DROP:

Eligibility: Completion of 23 years of Creditable Service, excluding military service, as of April 1, 2015. Members with less than 23 years as of this date will not be eligible to participate in Retro DROP.

Participation Period: Upon election to retroactively enter DROP, the Retro DROP period will not exceed 36 months.

Rate of Return 5.00%, compounded annually.

The PROP balance as December 31, 2016 is \$28,842,223.

The DROP balance as December 31, 2016 is \$7,530,342.



NET PENSION LIABILITY OF THE SPONSOR

The components of the Net Pension Liability of the Sponsor on December 31, 2016 were as follows:

Total Pension Liability	\$1,106,189,208
Plan Fiduciary Net Position	<u>\$ (686,020,262)</u>
Sponsor's Net Pension Liability	<u>\$ 420,168,946</u>
Plan Fiduciary Net Position as a percentage of Total Pension Liability	62.02%

*Actuarial Assumptions:*

The Total Pension Liability was determined by an actuarial valuation as of December 31, 2015 updated to December 31, 2016 using the following actuarial assumptions:

Inflation	3.00%
Salary Increases	Service based
Discount Rate	7.70%
Investment Rate of Return	7.70%

Mortality Rates - All lives : RP-2000 Combined Healthy without projection - Sex Distinct. We believe this sufficiently accommodates expected mortality improvements.

The most recent actuarial experience study used to review the other significant assumptions was dated July 10, 2017.

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 expenses and inflation) are developed for each major asset class.

For 2016, the inflation rate assumption of the investment advisor was 2.50%.

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 Pension Plan's target asset allocation as of December 31, 2016 are summarized in the following table:

<u>Asset Class</u>	<u>Long Term Expected Real Rate of Return</u>
Domestic Equity	7.5%
International Equity	8.5%
Fixed Income (Core)	2.5%
Non-US Fixed Income	3.5%
Real Estate	4.5%
Timber	2.5%
Private Equity	7.5%
Hedge Funds	5.0%



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### Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.70 percent.

The projection of cash flows used to determine the Discount Rate assumed that Plan Member contributions will be made at the current contribution rate and that Sponsor contributions will be made at rates equal to the difference between actuarially determined contribution rates and the Member rate. Based on those assumptions, the Pension Plan's Fiduciary Net Position was projected to be available to make all 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.

For purpose of this valuation, the expected rate of return on pension plan investments is 7.70%; the municipal bond rate is 3.78% (based on the weekly rate closest to but not later than the measurement date of the Bond Buyer 20-Bond Index as published by the Bond Buyer); and the resulting single discount rate is 7.70%.

	1% Decrease 6.70%	Current Discount Rate 7.70%	1% Increase 8.70%
Sponsor's Net Pension Liability	\$ 543,431,167	\$ 420,168,946	\$ 315,660,849

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS  
Last 10 Years

	12/31/2016	12/31/2015
Total Pension Liability		
Service Cost	32,989,949	32,138,760
Interest	80,845,879	76,999,651
Changes of benefit terms	-	(4,079,852)
Differences between Expected and Actual Experience	7,454,959	(6,318,435)
Changes of assumptions	5,148,318	3,903,538
Contributions - Buy Back	1,668,174	4,648,271
Benefit Payments, including Refunds of Employee Contributions	(50,827,501)	(50,005,439)
Net Change in Total Pension Liability	77,279,778	57,286,494
Total Pension Liability - Beginning	1,028,909,430	971,622,936
Total Pension Liability - Ending (a)	\$1,106,189,208	\$1,028,909,430
Plan Fiduciary Net Position		
Contributions - Employer	33,814,182	33,239,271
Contributions - Employee	20,623,125	20,060,610
Contributions - Buy Back	1,668,174	4,648,271
Net Investment Income	37,964,881	(321,704)
Benefit Payments, including Refunds of Employee Contributions	(50,827,501)	(50,005,439)
Administrative Expense	(1,396,736)	(1,465,939)
Net Change in Plan Fiduciary Net Position	41,846,125	6,155,070
Plan Fiduciary Net Position - Beginning	644,174,137	638,019,067
Plan Fiduciary Net Position - Ending (b)	\$ 686,020,262	\$ 644,174,137
Net Pension Liability - Ending (a) - (b)	\$ 420,168,946	\$ 384,735,293
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	62.02%	62.61%
Covered Employee Payroll	\$ 158,655,196	\$ 154,243,493
Net Pension Liability as a percentage of Covered Employee Payroll	264.83%	249.43%

**Notes to Schedule:***Changes of benefit terms:*

For measurement date 12/31/2015, amounts reported as changes of benefit terms resulted from approved changes by the Board to the design of the Forward-DROP program.

For members with less than 23 years of APRS service as of February 17, 2016, the following changes were made for future retirees who elect to utilize the Forward-DROP:

- Member contributions will continue to be required during the DROP participation period, but these contributions will be retained by the System.
- DROP balances will no longer receive interest crediting during the DROP participation period.
- A fee/charge will be applied on a graduated scale during the DROP participation period based on the schedule on the next page. Please note this fee/charge will no longer apply once the member exits the DROP.

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<u>Year of DROP Participation</u>	<u>Fee/Charge Applied to Monthly Benefit in DROP</u>
1	25%
2	20%
3	15%
4	10%
5	5%
6	5%
7	5%

Please note members who had completed 23 or more years of APRS service as of February 17, 2016 and elect to utilize Forward-DROP will be allowed the option to choose the previous 5-year DROP (not subject to the changes described) or the 7-year DROP as described above.

*Changes of assumptions:*

For measurement date 12/31/2016, amounts reported as changes of assumptions resulted from:

- The investment return assumption has been decreased from 7.80% to 7.70% per year compounded annually, net of all expenses.
- The core inflation rate assumption has been decreased from 3.25% to 3.00% per year.
- The general wage inflation rate assumption has been decreased from 3.50% to 3.25% per year.
- The assumed rates of salary increase have been amended at most service points.
- The payroll growth assumption has been increased from 3.50% to 4.00% per year.

For measurement date 12/31/2015, amounts reported as changes of assumptions resulted from:

- The investment return assumption has been decreased from 7.90% to 7.80% per year compounded annually, net of all expenses.
- The withdrawal rate table was modified slightly.



SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS  
Last 10 Years

	12/31/2014	12/31/2013
Total Pension Liability		
Service Cost	30,253,628	28,769,060
Interest	72,442,934	68,919,471
Changes of benefit terms	(11,015,618)	-
Differences between Expected and Actual Experience	-	-
Changes of assumptions	14,137,496	-
Contributions - Buy Back	2,207,398	-
Benefit Payments, including Refunds of Employee Contributions	(45,403,126)	(42,825,265)
Net Change in Total Pension Liability	62,622,712	54,863,266
Total Pension Liability - Beginning	909,000,224	854,136,958
Total Pension Liability - Ending (a)	\$971,622,936	\$909,000,224
Plan Fiduciary Net Position		
Contributions - Employer	32,399,740	31,160,764
Contributions - Employee	19,457,407	19,467,960
Contributions - Buy Back	2,207,398	-
Net Investment Income	35,574,317	49,524,150
Benefit Payments, including Refunds of Employee Contributions	(45,403,126)	(42,825,265)
Administrative Expense	(1,327,071)	(1,114,856)
Net Change in Plan Fiduciary Net Position	42,908,665	56,212,753
Plan Fiduciary Net Position - Beginning	595,110,402	538,897,649
Plan Fiduciary Net Position - Ending (b)	\$638,019,067	\$595,110,402
Net Pension Liability - Ending (a) - (b)	\$333,603,869	\$313,889,822
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	65.67%	65.47%
Covered Employee Payroll	\$149,790,754	\$144,089,468
Net Pension Liability as a percentage of Covered Employee Payroll	222.71%	217.84%

**Notes to Schedule:***Changes of benefit terms:*

For measurement date 12/31/2014 amounts reported as changes of benefit terms resulted from:

- Effective February 18, 2015, eliminate the opportunity to purchase permissive service in conjunction with utilizing the Forward or Retro-DROP.
- Effective February 18, 2015, permissive service credit factors shall be determined based on an interest rate that is 50 basis points lower than the valuation assumption and generational mortality.
- Effective April 1, 2015, eliminate Retro-DROP for members with less than 23 years of APRS service.
- Effective August 1, 2015, the Forward DROP interest rate will be set annually in the same manner as the PROP interest rate, except for those with 23 years of APRS service as of July 31, 2015 who will not be affected.
- New hires beginning February 1, 2016 will be required to pay the full actuarial cost for purchase of military service. All others will continue to pay 25% of the actuarial cost, which will be based on an interest rate that is 50 basis points lower than the valuation assumption and generational mortality.



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### *Changes of assumptions:*

For measurement date 12/31/2014, amounts reported as changes of assumptions resulted from:

- The investment return assumption has been decreased from 8.00% to 7.90% per year compounded annually, net of all expenses.
- The expected increase in salary due to general wage increases has been lowered from 3.75% to 3.50% per year.
- For members that enter the system prior to age 33, the retirement rates have been increased by 25.0% above their current level. Additionally, some slight modifications have been made to the retirement rates due to anticipated future PRP usage (as described in our April 2015 analysis).
- The annual assumed interest rate credited to PROP accounts has been decreased from 4.00% to 2.25% per year.
- The disability rates have been reduced in half.

SCHEDULE OF CONTRIBUTIONS  
Last 10 Years

	12/31/2016	12/31/2015	12/31/2014	12/31/2013
Actuarially Determined Contribution	N/A	N/A	N/A	N/A
Contributions in relation to the Actuarially Determined Contributions	N/A	N/A	N/A	N/A
Contribution Deficiency (Excess)	N/A	N/A	N/A	N/A
Covered Employee Payroll	\$158,655,196	\$154,243,493	\$ 149,790,754	\$144,089,468
Contributions as a percentage of Covered Employee Payroll	21.31%	21.55%	21.63%	21.63%

Notes to Schedule

Methods and assumptions used to determine liabilities:

Mortality Rates - All Lives:	RP-2000 Combined Healthy without projection – Sex Distinct. We believe this sufficiently accommodates expected mortality improvements.
Interest Rate:	7.80% per year, compounded annually, net of all expenses. This is supported by the asset allocation of the trust and the long-term expected return by asset class.
Core inflation:	3.25% per year. This is reasonable based upon long-term expectations.
Payroll Growth:	3.50% per year for amortization of the Unfunded Actuarial Accrued Liability. This is reasonable based upon long-term expectations.
Administrative Expenses (PRP):	0.017% of payroll for assumed additional administrative expenses for participation in the Proportionate Retirement Program.
DROP Election:	75% of those assumed to retire who are eligible for at least a 12-month DROP lump sum will make such an election (RETRO) or will have made such an election (FORWARD). See following tables for allocation between RETRO and FORWARD. This is reasonable based upon long-term expectations.
DROP Period Election:	Members elect the maximum period eligible. This is reasonable based upon long-term expectations.
PROP Investment Accounts:	75% retiring in DROP will elect to leave their lump sum in the System until age 60. Average annual rate credited to the PROP accounts will be 2.25%. This is reasonable based upon long-term expectations.
Marital Status:	85% of actives are assumed to be married at time of benefit commencement. Females are assumed to be 3 years younger than Males. This is reasonable based upon long-term expectations.
Funding Method:	Entry Age Normal Actuarial Cost Method.
Actuarial Asset Method:	All assets are valued at market value with an adjustment made to uniformly spread actuarial investment gains and losses (as measured by actual market value investment return against expected market value investment return) over a five-year period. The asset value of the Retiree Death Benefit Fund is then subtracted to determine the Actuarial Value of Assets.
Retirement Rates:	See table on next page. The assumed rates of retirement were approved in conjunction with the 2015 review of the actuarial assumptions and methods.
Termination Rates:	See table on next page. The assumed rates of termination were approved in conjunction with the 2016 review of the actuarial assumptions and methods.
Disability Rates:	See table on next page. 55% of disablements are assumed to be service related. The assumed rates of disablement were approved in conjunction with the 2015 review of the actuarial assumptions and methods.
Salary Increases:	See table on next page. These are reasonable based upon long-term expectations.
Pre-Retirement Death Payment Form:	Married: Joint and 100% to Survivor. Single: 15-Year Certain and Life Annuity.

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Retirement Rates:

For Entry Ages Under 32 <sup>1</sup>			
APRS Service	22 & Under	23-27	28-32
0-22	0.0625	0.1250	0.1250
23	0.1875	0.1875	0.28125
24	0.1250	0.1250	0.1875
25	0.1250	0.1250	0.1875
26	0.1875	0.1875	0.3125
27	0.1875	0.1875	0.3125
28	0.3125	0.3125	0.3125
29	0.3125	0.3125	0.3750
30	0.3750	0.3750	0.5000
31	0.3750	0.3750	0.6250
32	0.3750	0.3750	1.00 <sup>2</sup>
33	0.3750	0.3750	
34	0.5000	0.5000	
35	0.5000	0.6250	
36	0.5000	0.6250	
37	0.6250	1.00 <sup>2</sup>	
38	0.6250		
39	0.6250		
40	0.6250		
41	0.6250		
42	1.00 <sup>2</sup>		

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Retirement Rates:

For Entry Ages 33 and Above <sup>3</sup>			
Age	33-37	38-42	43 & Over
33-37	0.05		
38-42	0.05	0.10	
43-47	0.05	0.10	0.10
48	0.05	0.10	0.10
49	0.05	0.10	0.10
50	0.05	0.10	0.10
51	0.05	0.10	0.10
52	0.20	0.10	0.10
53	0.35	0.10	0.10
54	0.75	0.10	0.10
55	0.20	0.10	0.10
56	0.25	0.10	0.10
57	0.30	0.10	0.10
58	0.35	0.10	0.10
59	0.50	0.10	0.10
60	1.00	0.50	0.10
61		0.35	0.10
62		0.35	0.80
63		0.35	0.40
64		0.35	0.40
65		1.00	1.00

<sup>1</sup> Rates are based on APRS service only and apply after a Member is eligible for retirement with combined APRS and Proportionate Retirement Program (PRP) service. Entry ages are determined based on APRS service only.

<sup>2</sup> 100% retirement rate will be effective at age 60, if earlier.

<sup>3</sup> Rates are based on age and apply after a Member is eligible for retirement with combined APRS and PRP service. Entry ages are determined based on APRS service only.

Termination Rates:

Combined Years of Service <sup>1</sup>	Probability of Termination During Year
0	0.05
1	0.02
2	0.02
3	0.02
4	0.02
5	0.02
6	0.02
7	0.02
8	0.02
9	0.02
10	0.01
11	0.01
12	0.005
13	0.005
14	0.005
15 & Above	0

<sup>1</sup> APRS service combined with Proportionate Retirement Program service.



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Disability Rates:

Age	Probability of Disablement During Year
20	0.00007
22	0.00008
24	0.00009
26	0.000105
28	0.000125
30	0.000155
32	0.000200
34	0.000245
36	0.000270
38	0.000310
40	0.000460
42	0.000660
44	0.000865
46	0.001275
48	0.001670
50	0.001895
52	0.002020
54	0.002280
56	0.002660
58	0.003300
60	0.004555
62 & Above	0

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Salary Increases:

Years of Service	Increase in Salary <sup>1</sup>
0	18.0%
1	11.2%
2	5.8%
3	0.9%
4	0.9%
5	7.1%
6	0.5%
7	0.5%
8	0.5%
9	7.1%
10	0.3%
11	0.3%
12	0.3%
13	7.1%
14	0.2%
15	7.2%
16	0.2%
17	0.1%
18	0.1%
19	0.1%
20	0.1%
21	0.1%
22	0.1%
23	0.1%
24	0.1%
25 & Above	0.0%

<sup>1</sup> Expected increases in salary as shown above are in addition to 3.50% increase per year due to general wage increases.

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Retirement Option Election:

(Members with less than 23 years of APRS service on April 1, 2015)

Service at Termination of Employment	No DROP Elected <sup>1</sup>	FORWARD DROP Elected
23 or less	100%	0%
24	25	75
25	25	75
26	25	75
27	25	75
28	25	75
29	25	75
30	25	75
31	25	75
32	25	75
33	25	75
34	25	75
35	25	75
36	25	75
37	25	75
38	25	75
39	25	75
40	25	75
41	25	75
42	25	75

<sup>1</sup> Police officers elect a type of service retirement benefit that does not include payment of a lump sum distribution

SCHEDULE OF INVESTMENT RETURNS  
Last 10 Years

	<u>12/31/2016</u>	<u>12/31/2015</u>	<u>12/31/2014</u>	<u>12/31/2013</u>
Annual Money-Weighted Rate of Return				
Net of Investment Expense	5.88%	-0.05%	5.71%	8.90%



NOTES TO THE FINANCIAL STATEMENTS  
(For the Year Ended September 30, 2017)

General Information about the Pension Plan

*Plan Description*

The Plan is a single-employer defined benefit pension plan administered by the Plan's Board of Trustees comprised of:

- a. One council member designated by the city council;
- b. The city manager or the city manager's designee;
- c. The director of finance or the director's designee;
- d. Five police officer members elected by the police officer members of the system, each of whom serves for a term of four years;
- e. One legally qualified voter of the city, resident for the preceding five years, to be appointed by the police retirement board to serve for a term of four years and until the member's successor is duly selected and qualified.
- f. Two retired members to be elected by the retired members to serve for a term of four years, with the term of one member expiring each odd-numbered year.

Any person who is a police officer of the city on the date the police retirement system becomes effective and was a member of the predecessor system on December 31, 1979, shall become a member as a condition of employment.

*Plan Membership as of December 31, 2015:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	801
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	41
Active Plan Members	1,761
	2,603

*Benefits Provided*

The Plan provides retirement, termination, disability and death benefits.

Normal Retirement:

Date: Earlier of age 62, age 55 and 20 years of Creditable Service, or 23 years of Creditable Service, regardless of age (excluding military service).

Benefit: 3.20% of Average Final Compensation times Creditable Service.

Vesting:

Schedule: 100% after 10 years of Creditable Service.

Benefit Amount: Member will receive his (her) accrued benefit payable at the Normal Retirement Date based upon actual Creditable Service prior to termination.

Non-vested members receive a refund of accumulated contributions.

Disability:

Eligibility: Total and permanent as determined by the Board. Members must have 10 years of Creditable Service if the disability was non-service related.

Benefit accrued to date of disability but not less than 64% of Average Final Compensation for service related disablements.

Death Benefits:

Before Retirement Eligibility: Twice the amount of the Member's accumulated contributions, subject to a minimum of \$10,000.

After Retirement Eligibility: Member's accrued benefit as of the date of death, payable based on optional annuity selected either by Member or beneficiary. Additionally, a lump sum death benefit is payable in the amount of \$10,000.

Retiree Death Benefit Fund:

Effective September 1, 2003, a separate fund (funded as a portion of the City's contribution rate) was established to pay post-retirement lump sum death benefits. Effective September 1, 2007, the amount of these benefits was increased to \$10,000.

Cost of Living Adjustment:

Eligibility: Normal Retirement.

Amount: Determined by the actuary if providing a COLA (not to exceed 6.0% per year) will not impair financial stability of the System. Post-Retirement benefit increases will automatically be provided when the System's benefit accrual rate is increased.

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### Proportionate Retirement Program:

Effective September 1, 2009, the System and the City began participating in the statewide Proportionate Retirement Program (PRP). Service in other participating public employee retirement systems can be combined with service in the System to satisfy the System's requirements for service retirement eligibility and for eligibility for vested benefits of a terminated Member. The participating systems, in addition to the System, are the six statewide systems, the City of Austin Employees' Retirement System, and the systems for the City of El Paso employees.

### *Contributions*

Member Contributions: 13.0% of Earnings.

City Contributions: 21.313%, effective October 1, 2015.

### Net Pension Liability

The measurement date is December 31, 2016.

The measurement period for the pension expense was December 31, 2015 to December 31, 2016.

The reporting period is September 30, 2016 through September 30, 2017.

The Sponsor's Net Pension Liability was measured as of December 31, 2016.

The Total Pension Liability used to calculate the Net Pension Liability was determined as of that date.

### *Actuarial Assumptions:*

The Total Pension Liability was determined by an actuarial valuation as of December 31, 2015 updated to December 31, 2016 using the following actuarial assumptions:

Inflation	3.00%
Salary Increases	Service based
Discount Rate	7.70%
Investment Rate of Return	7.70%

Mortality Rates - All lives : RP-2000 Combined Healthy without projection - Sex Distinct. We believe this sufficiently accommodates expected mortality improvements.

The most recent actuarial experience study used to review the other significant assumptions was dated July 10, 2017.

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 expenses and inflation) are developed for each major asset class.

For 2016, the inflation rate assumption of the investment advisor was 2.50%.

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 Pension Plan's target asset allocation as of December 31, 2016 are summarized in the following table:

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long Term Expected Real Rate of Return</u>
Domestic Equity	40.00%	7.5%
International Equity	15.00%	8.5%
Fixed Income (Core)	5.00%	2.5%
Non-US Fixed Income	5.00%	3.5%
Real Estate	15.00%	4.5%
Timber	2.50%	2.5%
Private Equity	12.50%	7.5%
Hedge Funds	5.00%	5.0%
<u>Total</u>	<u>100.00%</u>	



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### Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.70 percent.

The projection of cash flows used to determine the Discount Rate assumed that Plan Member contributions will be made at the current contribution rate and that Sponsor contributions will be made at rates equal to the difference between actuarially determined contribution rates and the Member rate. Based on those assumptions, the Pension Plan's Fiduciary Net Position was projected to be available to make all 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.

For purpose of this valuation, the expected rate of return on pension plan investments is 7.70%; the municipal bond rate is 3.78% (based on the weekly rate closest to but not later than the measurement date of the Bond Buyer 20-Bond Index as published by the Bond Buyer); and the resulting single discount rate is 7.70%.

## CHANGES IN NET PENSION LIABILITY

	Increase (Decrease)		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
	(a)	(b)	(a)-(b)
Reporting Period Ending September 30, 2016	\$1,028,909,430	\$ 644,174,137	\$ 384,735,293
Changes for a Year:			
Service Cost	32,989,949	-	32,989,949
Interest	80,845,879	-	80,845,879
Differences between Expected and Actual Experience	7,454,959	-	7,454,959
Changes of assumptions	5,148,318	-	5,148,318
Changes of benefit terms	-	-	-
Contributions - Employer	-	33,814,182	(33,814,182)
Contributions - Employee	-	20,623,125	(20,623,125)
Contributions - Buy Back	1,668,174	1,668,174	-
Net Investment Income	-	37,964,881	(37,964,881)
Benefit Payments, including Refunds of Employee Contributions	(50,827,501)	(50,827,501)	-
Administrative Expense	-	(1,396,736)	1,396,736
Net Changes	77,279,778	41,846,125	35,433,653
Reporting Period Ending September 30, 2017	\$1,106,189,208	\$ 686,020,262	\$ 420,168,946

*Sensitivity of the Net Pension Liability to changes in the Discount Rate.*

	Current Discount		
	1% Decrease	Rate	1% Increase
	6.70%	7.70%	8.70%
Sponsor's Net Pension Liability	\$ 543,431,167	\$ 420,168,946	\$ 315,660,849

*Pension Plan Fiduciary Net Position.*

Detailed information about the pension Plan's Fiduciary Net Position is available in a separately issued Plan financial report.



FINAL PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND  
DEFERRED INFLOWS OF RESOURCES RELATED TO PENSIONS  
FISCAL YEAR SEPTEMBER 30, 2016

For the year ended September 30, 2016, the Sponsor has recognized a Pension Expense of \$49,518,839. On September 30, 2016, the Sponsor reported Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	-	5,686,592
Changes of assumptions	14,823,183	-
Net difference between Projected and Actual Earnings on Pension Plan investments	47,822,301	-
Employer contributions subsequent to the measurement date	24,299,349	-
Total	\$ 86,944,833	\$ 5,686,592

The outcome of the Deferred Outflows of resources related to pensions resulting from Employer contributions subsequent to the measurement date has been recognized as a reduction of the Net Pension Liability in the year ended September 30, 2016. Other amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions will be recognized in Pension Expense as follows:

Year ended September 30:	
2017	\$ 13,714,289
2018	\$ 13,714,291
2019	\$ 13,714,292
2020	\$ 11,368,470
2021	\$ 1,172,260
Thereafter	\$ 3,275,290

Payable to the Pension Plan

On December 31, 2015, the Sponsor reported a payable of \$452,253 for the outstanding amount of contributions of the Pension Plan required for the year ended December 31, 2015.

PRELIMINARY PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND  
DEFERRED INFLOWS OF RESOURCES RELATED TO PENSIONS  
FISCAL YEAR SEPTEMBER 30, 2017

For the year ended September 30, 2017, the Sponsor will recognize a Pension Expense of \$61,673,516.

On September 30, 2017, the Sponsor reported Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	6,709,464	5,054,749
Changes of assumptions	17,652,569	-
Net difference between Projected and Actual Earnings on Pension Plan investments	45,225,927	-
Employer contributions subsequent to the measurement date	TBD	-
Total	TBD	\$ 5,054,749

The outcome of the Deferred Outflows of resources related to pensions resulting from Employer contributions subsequent to the measurement date will be recognized as a reduction of the Net Pension Liability in the year ended September 30, 2017.

Other amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions will be recognized in Pension Expense as follows:

Year ended September 30:	
2018	\$ 17,461,033
2019	\$ 17,461,034
2020	\$ 15,115,212
2021	\$ 4,919,002
2022	\$ 2,432,588
Thereafter	\$ 7,144,342

Payable to the Pension Plan

On December 31, 2016, the Sponsor reported a payable of \$670,289 for the outstanding amount of contributions of the Pension Plan required for the year ended December 31, 2016.





<u>Year of DROP Participation</u>	<u>Fee/Charge Applied to Monthly Benefit in DROP</u>
1	25%
2	20%
3	15%
4	10%
5	5%
6	5%
7	5%

Please note members who had completed 23 or more years of APRS service as of February 17, 2016 and elect to utilize Forward-DROP will be allowed the option to choose the previous 5-year DROP (not subject to the changes described) or the 7-year DROP as described above.

*Changes of assumptions:*

For measurement date 12/31/2016, amounts reported as changes of assumptions resulted from:

- The investment return assumption has been decreased from 7.80% to 7.70% per year compounded annually, net of all expenses.
- The core inflation rate assumption has been decreased from 3.25% to 3.00% per year.
- The general wage inflation rate assumption has been decreased from 3.50% to 3.25% per year.
- The assumed rates of salary increase have been amended at most service points.
- The payroll growth assumption has been increased from 3.50% to 4.00% per year.

For measurement date 12/31/2015, amounts reported as changes of assumptions resulted from:

- The investment return assumption has been decreased from 7.90% to 7.80% per year compounded annually, net of all expenses.
- The withdrawal rate table was modified slightly.



SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS  
Last 10 Fiscal Years

Reporting Period Ending	09/30/2015	09/30/2014
Measurement Date	12/31/2014	12/31/2013
Total Pension Liability		
Service Cost	30,253,628	28,769,060
Interest	72,442,934	68,919,471
Changes of benefit terms	(11,015,618)	-
Differences between Expected and Actual Experience	-	-
Changes of assumptions	14,137,496	-
Contributions - Buy Back	2,207,398	-
Benefit Payments, including Refunds of Employee Contributions	(45,403,126)	(42,825,265)
Net Change in Total Pension Liability	62,622,712	54,863,266
Total Pension Liability - Beginning	909,000,224	854,136,958
Total Pension Liability - Ending (a)	<u>\$971,622,936</u>	<u>\$909,000,224</u>
 Plan Fiduciary Net Position		
Contributions - Employer	32,399,740	31,160,764
Contributions - Employee	19,457,407	19,467,960
Contributions - Buy Back	2,207,398	-
Net Investment Income	35,574,317	49,524,150
Benefit Payments, including Refunds of Employee Contributions	(45,403,126)	(42,825,265)
Administrative Expense	(1,327,071)	(1,114,856)
Net Change in Plan Fiduciary Net Position	42,908,665	56,212,753
Plan Fiduciary Net Position - Beginning	595,110,402	538,897,649
Plan Fiduciary Net Position - Ending (b)	<u>\$638,019,067</u>	<u>\$595,110,402</u>
 Net Pension Liability - Ending (a) - (b)	<u>\$333,603,869</u>	<u>\$313,889,822</u>
 Plan Fiduciary Net Position as a percentage of the Total Pension Liability	65.67%	65.47%
 Covered Employee Payroll	\$149,790,754	\$144,089,468
Net Pension Liability as a percentage of Covered Employee Payroll	222.71%	217.84%

**Notes to Schedule:***Changes of benefit terms:*

For measurement date 12/31/2014 amounts reported as changes of benefit terms resulted from:

- Effective February 18, 2015, eliminate the opportunity to purchase permissive service in conjunction with utilizing the Forward or Retro-DROP.
- Effective February 18, 2015, permissive service credit factors shall be determined based on an interest rate that is 50 basis points lower than the valuation assumption and generational mortality.
- Effective April 1, 2015, eliminate Retro-DROP for members with less than 23 years of APRS service.
- Effective August 1, 2015, the Forward DROP interest rate will be set annually in the same manner as the PROP interest rate, except for those with 23 years of APRS service as of July 31, 2015 who will not be affected.
- New hires beginning February 1, 2016 will be required to pay the full actuarial cost for purchase of military service. All others will continue to pay 25% of the actuarial cost, which will be based on an interest rate that is 50 basis points lower than the valuation assumption and generational mortality.

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### *Changes of assumptions:*

For measurement date 12/31/2014, amounts reported as changes of assumptions resulted from:

- The investment return assumption has been decreased from 8.00% to 7.90% per year compounded annually, net of all expenses.
- The expected increase in salary due to general wage increases has been lowered from 3.75% to 3.50% per year.
- For members that enter the system prior to age 33, the retirement rates have been increased by 25.0% above their current level. Additionally, some slight modifications have been made to the retirement rates due to anticipated future PRP usage (as described in our April 2015 analysis).
- The annual assumed interest rate credited to PROP accounts has been decreased from 4.00% to 2.25% per year.
- The disability rates have been reduced in half.



SCHEDULE OF CONTRIBUTIONS  
Last 10 Fiscal Years

Reporting Period Ending	09/30/2017	09/30/2016	09/30/2015	09/30/2014
Measurement Date	12/31/2016	12/31/2015	12/31/2014	12/31/2013
Actuarially Determined Contribution	N/A	N/A	N/A	N/A
Contributions in relation to the				
Actuarially Determined Contributions	N/A	N/A	N/A	N/A
Contribution Deficiency (Excess)	N/A	N/A	N/A	N/A
Covered Employee Payroll	TBD by City	TBD by City	TBD by City	TBD by City
Contributions as a percentage of				
Covered Employee Payroll	21.31%	21.63%	21.63%	21.63%

Notes to Schedule

Methods and assumptions used to determine liabilities:

Mortality Rates - All Lives:	RP-2000 Combined Healthy without projection – Sex Distinct. We believe this sufficiently accommodates expected mortality improvements.
Interest Rate:	7.80% per year, compounded annually, net of all expenses. This is supported by the asset allocation of the trust and the long-term expected return by asset class.
Core inflation:	3.25% per year. This is reasonable based upon long-term expectations.
Payroll Growth:	3.50% per year for amortization of the Unfunded Actuarial Accrued Liability. This is reasonable based upon long-term expectations.
Administrative Expenses (PRP):	0.017% of payroll for assumed additional administrative expenses for participation in the Proportionate Retirement Program.
DROP Election:	75% of those assumed to retire who are eligible for at least a 12-month DROP lump sum will make such an election (RETRO) or will have made such an election (FORWARD). See following tables for allocation between RETRO and FORWARD. This is reasonable based upon long-term expectations.
DROP Period Election:	Members elect the maximum period eligible. This is reasonable based upon long-term expectations.
PROP Investment Accounts:	75% retiring in DROP will elect to leave their lump sum in the System until age 60. Average annual rate credited to the PROP accounts will be 2.25%. This is reasonable based upon long-term expectations.
Marital Status:	85% of actives are assumed to be married at time of benefit commencement. Females
Funding Method:	Entry Age Normal Actuarial Cost Method.
Actuarial Asset Method:	All assets are valued at market value with an adjustment made to uniformly spread actuarial investment gains and losses (as measured by actual market value investment return against expected market value investment return) over a five-year period. The asset value of the Retiree Death Benefit Fund is then subtracted to determine the Actuarial Value of Assets.
Retirement Rates:	See table on next page. The assumed rates of retirement were approved in conjunction with the 2015 review of the actuarial assumptions and methods.
Termination Rates:	See table on next page. The assumed rates of termination were approved in conjunction with the 2016 review of the actuarial assumptions and methods.
Disability Rates:	See table on next page. 55% of disablements are assumed to be service related. The assumed rates of disablement were approved in conjunction with the 2015 review of the actuarial assumptions and methods.
Salary Increases:	See table on next page. These are reasonable based upon long-term expectations.
Pre-Retirement Death Payment Form:	Married: Joint and 100% to Survivor. Single: 15-Year Certain and Life Annuity.

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Retirement Rates:

For Entry Ages Under 32 <sup>1</sup>			
APRS Service	22 & Under	23-27	28-32
0-22	0.0625	0.1250	0.1250
23	0.1875	0.1875	0.28125
24	0.1250	0.1250	0.1875
25	0.1250	0.1250	0.1875
26	0.1875	0.1875	0.3125
27	0.1875	0.1875	0.3125
28	0.3125	0.3125	0.3125
29	0.3125	0.3125	0.3750
30	0.3750	0.3750	0.5000
31	0.3750	0.3750	0.6250
32	0.3750	0.3750	1.00 <sup>2</sup>
33	0.3750	0.3750	0.0%
34	0.5000	0.5000	0.0%
35	0.5000	0.6250	0.0%
36	0.5000	0.6250	0.0%
37	0.6250	1.00 <sup>2</sup>	0.0%
38	0.6250	0.0%	0.0%
39	0.6250	0.0%	0.0%
40	0.6250	0.0%	0.0%
41	0.6250	0.0%	0.0%
42	1.00 <sup>2</sup>	0.0%	0.0%



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Retirement Rates:

Age	For Entry Ages 33 and Above <sup>3</sup>		
	33-37	38-42	43 & Over
33-37	0.05	0.0%	0.0%
38-42	0.05	0.10	0.0%
43-47	0.05	0.10	0.10
48	0.05	0.10	0.10
49	0.05	0.10	0.10
50	0.05	0.10	0.10
51	0.05	0.10	0.10
52	0.20	0.10	0.10
53	0.35	0.10	0.10
54	0.75	0.10	0.10
55	0.20	0.10	0.10
56	0.25	0.10	0.10
57	0.30	0.10	0.10
58	0.35	0.10	0.10
59	0.50	0.10	0.10
60	1.00	0.50	0.10
61	0.00	0.35	0.10
62	0.00	0.35	0.80
63	0.00	0.35	0.40
64	0.00	0.35	0.40
65	0.00	1.00	1.00

<sup>1</sup> Rates are based on APRS service only and apply after a Member is eligible for retirement with combined APRS and Proportionate Retirement Program (PRP) service. Entry ages are determined based on APRS service only.

<sup>2</sup> 100% retirement rate will be effective at age 60, if earlier.

<sup>3</sup> Rates are based on age and apply after a Member is eligible for retirement with combined APRS and PRP service. Entry ages are determined based on APRS service only.

Termination Rates:

Combined Years of Service <sup>1</sup>	Probability of Termination During Year
0	0.05
1	0.02
2	0.02
3	0.02
4	0.02
5	0.02
6	0.02
7	0.02
8	0.02
9	0.02
10	0.01
11	0.01
12	0.005
13	0.005
14	0.005
15 & Above	

<sup>1</sup> APRS service combined with Proportionate Retirement Program service.

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Disability Rates:

Age	Probability of Disablement During Year
20	0.00007
22	0.00008
24	0.00009
26	0.000105
28	0.000125
30	0.000155
32	0.000200
34	0.000245
36	0.000270
38	0.000310
40	0.000460
42	0.000660
44	0.000865
46	0.001275
48	0.001670
50	0.001895
52	0.002020
54	0.002280
56	0.002660
58	0.003300
60	0.004555
62 & Above	0

Salary Increases:

Years of Service	Increase in Salary <sup>1</sup>
0	18.0%
1	11.2%
2	5.8%
3	0.9%
4	0.9%
5	7.1%
6	0.5%
7	0.5%
8	0.5%
9	7.1%
10	0.3%
11	0.3%
12	0.3%
13	7.1%
14	0.2%
15	7.2%
16	0.2%
17	0.1%
18	0.1%
19	0.1%
20	0.1%
21	0.1%
22	0.1%
23	0.1%
24	0.1%
25 & Above	0.0%

<sup>1</sup> Expected increases in salary as shown above are in addition to 3.50% increase per year due to general wage increases.

Retirement Option Election:

(Members with less than 23 years of APRS service on April 1, 2015)

Service at Termination of Employment	No DROP Elected <sup>1</sup>	FORWARD DROP Elected
23 or less	100%	0%
24	25	75
25	25	75
26	25	75
27	25	75
28	25	75
29	25	75
30	25	75
31	25	75
32	25	75
33	25	75
34	25	75
35	25	75
36	25	75
37	25	75
38	25	75
39	25	75
40	25	75
41	25	75
42	25	75

<sup>1</sup> Police officers elect a type of service retirement benefit that does not include

FINAL COMPONENTS OF PENSION EXPENSE  
FISCAL YEAR SEPTEMBER 30, 2016

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 333,603,869	\$ -	\$ 46,162,515	\$ -
Employer Contributions made after 12/31/2015	-	-	24,299,349	-
Total Pension Liability Factors:				
Service Cost	32,138,760	-	-	32,138,760
Interest	76,999,651	-	-	76,999,651
Changes in benefit terms	(4,079,852)	-	-	(4,079,852)
Contributions - Buy Back	4,648,271	-	-	4,648,271
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	(6,318,435)	6,318,435	-	-
Current year amortization of experience difference	-	(631,843)	-	(631,843)
Change in assumptions about future economic or demographic factors or other inputs	3,903,538	-	3,903,538	-
Current year amortization of change in assumptions	-	-	(1,804,102)	1,804,102
Benefit Payments	(50,005,439)	-	-	(50,005,439)
Net change	<u>57,286,494</u>	<u>5,686,592</u>	<u>26,398,785</u>	<u>60,873,650</u>
Plan Fiduciary Net Position:				
Contributions - Employer	33,239,271	-	(24,055,479)	-
Contributions - Employee	20,060,610	-	-	(20,060,610)
Contributions - Buy Back	4,648,271	-	-	(4,648,271)
Projected Net Investment Income	50,659,339	-	-	(50,659,339)
Difference between projected and actual earnings on Pension Plan investments	(50,981,043)	-	50,981,043	-
Current year amortization	-	-	(12,542,031)	12,542,031
Benefit Payments	(50,005,439)	-	-	50,005,439
Administrative Expenses	(1,465,939)	-	-	1,465,939
Net change	<u>6,155,070</u>	<u>-</u>	<u>14,383,533</u>	<u>(11,354,811)</u>
Ending Balance	<u>\$ 384,735,293</u>	<u>\$ 5,686,592</u>	<u>\$ 86,944,833</u>	<u>\$ 49,518,839</u>



PRELIMINARY COMPONENTS OF PENSION EXPENSE  
FISCAL YEAR SEPTEMBER 30, 2017

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 384,735,293	\$ 5,686,592	\$ 86,944,833	\$ -
Employer Contributions made after 12/31/2016	-	-	TBD*	-
Total Pension Liability Factors:				
Service Cost	32,989,949	-	-	32,989,949
Interest	80,845,879	-	-	80,845,879
Changes in benefit terms	-	-	-	-
Contributions - Buy Back	1,668,174	-	-	1,668,174
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	7,454,959	-	7,454,959	-
Current year amortization of experience difference	-	(631,843)	(745,495)	113,652
Change in assumptions about future economic or demographic factors or other inputs	5,148,318	-	5,148,318	-
Current year amortization of change in assumptions	-	-	(2,318,932)	2,318,932
Benefit Payments	(50,827,501)	-	-	(50,827,501)
Net change	<u>77,279,778</u>	<u>(631,843)</u>	<u>9,538,850</u>	<u>67,109,085</u>
Plan Fiduciary Net Position:				
Contributions - Employer	33,814,182	-	(24,299,349)	-
Contributions - Employee	20,623,125	-	-	(20,623,125)
Contributions - Buy Back	1,668,174	-	-	(1,668,174)
Projected Net Investment Income	50,396,951	-	-	(50,396,951)
Difference between projected and actual earnings on Pension Plan investments	(12,432,070)	-	12,432,070	-
Current year amortization	-	-	(15,028,444)	15,028,444
Benefit Payments	(50,827,501)	-	-	50,827,501
Administrative Expenses	(1,396,736)	-	-	1,396,736
Net change	<u>41,846,125</u>	<u>-</u>	<u>(26,895,723)</u>	<u>(5,435,569)</u>
Ending Balance	<u>\$ 420,168,946</u>	<u>\$ 5,054,749</u>	<u>TBD</u>	<u>\$ 61,673,516</u>

\* Employer Contributions subsequent to the measurement date made after December 31, 2016 but made on or before September 30, 2017 need to be added.

AMORTIZATION SCHEDULE - INVESTMENTS

Increase (Decrease) in Pension Expense Arising from the Recognition of the of Differences Between Projected and Actual Earnings on Pension Plan Investments

Plan Year Ending	Differences Between Projected and Actual Earnings	Recognition Period (Years)	Increase (Decrease) in Pension Expense Arising from the Recognition of the of Differences Between Projected and Actual Earnings on Pension Plan Investments												
			2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027		
2014	\$ 11,729,112	5	\$ 2,345,822	\$ 2,345,822	\$ 2,345,822	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ 50,981,043	5	\$10,196,208	\$10,196,209	\$10,196,209	\$10,196,209	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ 12,432,070	5	\$ 2,486,414	\$ 2,486,414	\$ 2,486,414	\$ 2,486,414	\$ 2,486,414	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			<u>\$15,028,444</u>	<u>\$15,028,445</u>	<u>\$15,028,445</u>	<u>\$12,682,623</u>	<u>\$ 2,486,414</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>

AMORTIZATION SCHEDULE - CHANGES OF ASSUMPTIONS

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Changes of Assumptions

Plan Year Ending	Changes of Assumptions	Recognition Period (Years)	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
2014	\$ 14,137,496	10	\$ 1,413,749	\$ 1,413,749	\$ 1,413,750	\$ 1,413,750	\$ 1,413,750	\$ 1,413,750	\$ 1,413,750	\$ 1,413,750	\$ -	\$ -	\$ -
2015	\$ 3,903,538	10	\$ 390,353	\$ 390,354	\$ 390,354	\$ 390,354	\$ 390,354	\$ 390,354	\$ 390,354	\$ 390,354	\$ 390,354	\$ -	\$ -
2016	\$ 5,148,318	10	\$ 514,830	\$ 514,832	\$ 514,832	\$ 514,832	\$ 514,832	\$ 514,832	\$ 514,832	\$ 514,832	\$ 514,832	\$ 514,832	\$ -
Net Increase (Decrease) in Pension Expense			\$ 2,318,932	\$ 2,318,935	\$ 2,318,936	\$ 2,318,936	\$ 2,318,936	\$ 2,318,936	\$ 2,318,936	\$ 2,318,936	\$ 905,186	\$ 514,832	\$ -

AMORTIZATION SCHEDULE - EXPERIENCE

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences between Expected and Actual Experience

Plan Year Ending	Differences Between Expected and Actual Experience	Recognition Period (Years)	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
2015	\$ (6,318,435)	10	\$ (631,843)	\$ (631,843)	\$ (631,843)	\$ (631,843)	\$ (631,844)	\$ (631,844)	\$ (631,844)	\$ (631,844)	\$ (631,844)	\$ -
2016	\$ 7,454,959	10	\$ 745,495	\$ 745,496	\$ 745,496	\$ 745,496	\$ 745,496	\$ 745,496	\$ 745,496	\$ 745,496	\$ 745,496	\$ 745,496
Net Increase (Decrease) in Pension Expense			\$ 113,652	\$ 113,653	\$ 113,653	\$ 113,653	\$ 113,652	\$ 113,652	\$ 113,652	\$ 113,652	\$ 113,652	\$ 745,496



# HISTORICAL INFORMATION AND BENEFITS SECTION

## Changes in Plan Provisions

### September 1999

Board Membership changed to allow for greater membership participation by adding one active officer and one retired officer position to the Board of Trustees.

### July 2000

Benefit formula multiplier was increased from 2.88 percent to 3.0 percent with an equivalent special ad hoc increase granted to retirees.

### September 2001

Provision added for retirement eligibility with unreduced benefits to include members who have 23 years of creditable service excluding pre-membership military service.

Post Retirement Option Plan (PROP) provision added for members who select the Retroactive Deferred Retirement Option Plan (DROP) and instead of receiving a single lump-sum payment, elect to receive partial payments from the member's DROP account for each calendar year, in an amount elected by the member.

### September 2003

IRS Code adopted to allow the retiree death benefit amount of \$7,500 to be distributed to beneficiary of retired member as a Tax Free lump sum amount.

Permissive Service Credit provision added, which allows members with 20 years of service to purchase additional time at actuarially neutral cost to the System.

### April 2006

The PROP Monthly Annuity Deferral Option was added for retiree members.

### October 2006

Member contribution rate was increased from 9 percent to 11 percent.

### **April 2007**

Forward Deferred Retirement Option Plan (Forward DROP) provision added for a one-time benefit whereby active police officers can choose to retire, continue working for and receiving a paycheck from APD, while their retirement annuity is deferred into a DROP account on their behalf at the retirement System.

### **September 2007**

Permissive service credit was changed to: (1) allow the purchase by a deceased member's designated beneficiary if there is no surviving spouse; and (2) allow the purchase to be based on deferring the actual date when retirement benefits would begin in order to reduce the member's cost (Deferred Permissive Service).

The retiree death benefit was increased from \$7,500 to \$10,000.

### **October 2007**

Member contribution rate was increased from 11 percent to 13 percent.

### **December 2007**

Benefit formula multiplier was increased from 3.0 percent to 3.2 percent with an equivalent special ad hoc increase granted to retirees.

### **January 2009**

The City's contribution rate was increased from 18 percent to 18.25 percent to fund APRS participation in Texas Proportionate Retirement System.

### **March 2009**

APRS joined the Texas Proportionate Retirement System, which allows members with service credit in more than one participating retirement system to be eligible to combine their service credits in order to satisfy the length of service requirements used to determine eligibility for service retirement.

### **September 2009**

The City's contribution rate was increased from 18.25 percent to 18.63 percent to fund APRS participation in Texas Proportionate Retirement Program.

### **October 2010**

The City's contribution rate was increased from 18.63 percent to 19.63 percent.

### **October 2011**

The City's contribution rate was increased from 19.63 percent to 20.63 percent.

### **October 2012**

The City's contribution rate was increased from 20.63 percent to 21.63 percent.

### **February 2015**

Effective February 18, 2015, the opportunity to purchase permissive service in conjunction with utilizing the Forward or Retro DROP was eliminated.

Effective February 18, 2015, permissive service credit factors shall be determined based on an interest rate that is 50 basis points lower than the valuation assumption and generational mortality.

Effective April 1, 2015, Retro DROP was eliminated for members with less than 23 years of APRS service.

Effective August 1, 2015, the Forward DROP interest rate will be set annually in the same manner as the PROP interest rate, except for those with 23 years of APRS service as of July 31, 2015 who will not be affected.

New hires beginning February 1, 2016 will be required to pay the full actuarial cost to purchase military service. All others will continue to pay 25 percent of the actuarial cost, which will be based on an interest rate that is 50 basis points lower than the valuation assumption and generational mortality.

### **October 2015**

The City's contribution rate was decreased from 21.63 percent to 21.313 percent on October 1, 2015. The change was due to an actuarial study conducted to assess the cost of participation in the Proportionate Retirement Program.



### **February 2016**

A new Forward DROP program was created. Modifications included elimination of interest paid to the account, elimination of member contributions being credited to the account, a graduated fee in each year of the Forward DROP period, and an option to elect up to seven years in the new Forward DROP.

Changes would not apply to members with 23 years of creditable service as of February 17, 2016. Grandfathered members could choose either the old Five Year Forward DROP or the new Seven Year Forward DROP.

## Interest Paid on Member Accounts

YEAR	INTEREST PAID
2016	0.0%
2015	0.0%
2014	0.0%
2013	0.0%
2012	0.0%
2011	0.0%
2010	0.0%
2009	0.0%
2008	0.0%
2007*	5.0%
2006	0.0%
2005	0.0%
2004	2.0%
2003	2.0%
2002	2.0%
2001	4.0%

\*Beginning in 2007, interest (if granted) is only paid on vested members accounts

### Interest Paid On Retirement Contributions.

The Board of Trustees annually determines the amount of interest paid on vested members' accumulated deposits, taking into consideration the performance of the Fund's investments and the actuary's recommendations.

Retirement interest is paid only to vested members' (10 years of service) accounts at the end of the calendar year based on the amount in the member account on the first day of that calendar year.

## COLA's Paid to Retirees and Beneficiaries

YEAR	COLA PAID
2016	0.0%
2015	0.0%
2014	0.0%
2013	0.0%
2012	0.0%
2011	0.0%
2010	0.0%
2009	0.0%
2008	0.0%
2007	1.0%
2006	0.0%
2005	0.0%
2004	1.75%
2003	3.0%
2002	1.5%
2001	3.0%

### Cost Of Living Adjustments for retirees.

On January 1 of each year the Board may approve a cost-of-living adjustment for those retirees who retired on or before December 31 of the previous year. The amount of the adjustment is set by the Board upon recommendation by the System's actuary that such an adjustment will not make the Fund financially unsound, and the adjustment is not inconsistent with the Plan provisions. The adjustment is prorated for any benefit which has been in effect for less than a year, with the proration being 1/12 for each monthly payment received during the prior year.

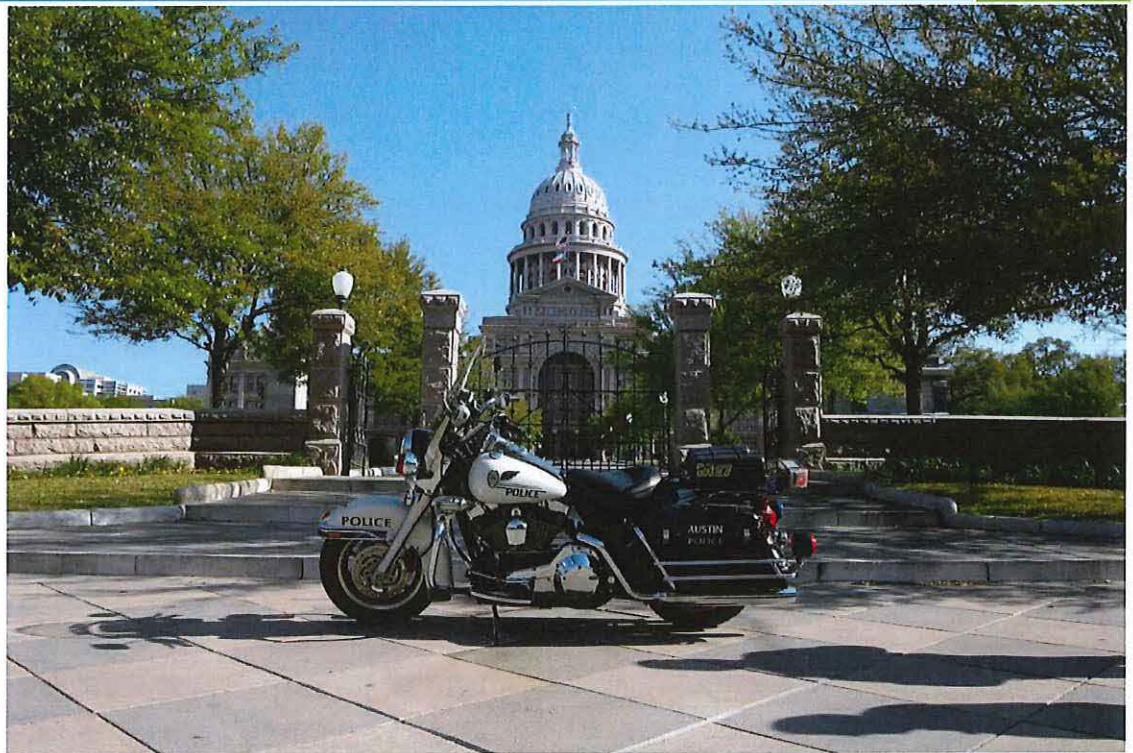
## Comparative Statement of Membership

<b>Active Members</b>	<b>2016</b>	<b>2015</b>
Total Number of Active Members, January 1	1,761	1,777
Add: New Members	156	83
Deduct: Members Terminated	(22)	(26)
Deceased Members	(2)	(2)
Members Transferred to Retiree/DROP System	(56)	(71)
<b>TOTAL ACTIVE MEMBERS, DECEMBER 31</b>	<b><u>1,837</u></b>	<b><u>1,761</u></b>
<b>Vested Terminated</b>		
<b>TOTAL VESTED TERMINATED MEMBERS, DECEMBER 31</b>	<b><u>36</u></b>	<b><u>41</u></b>
<b>Retired Members</b>		
Total Number of Retired Members, January 1	801	727
Add: New Retired Members	56	71
Deduct: Retired Members Deceased	(8)	(3)
<b>TOTAL RETIRED MEMBERS, DECEMBER 31</b>	<b><u>849</u></b>	<b><u>801</u></b>
<b>TOTAL APRS MEMBERS, DECEMBER 31</b>	<b><u>2,722</u></b>	<b><u>2,603</u></b>



2017

# Member Benefit Guide



A guide to the City of Austin Police  
Retirement System pension plan

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## Introduction

APRS is pleased to offer this guide to APRS pension benefits. This guide has been prepared to help members better understand how the pension plan works in summary. APRS is governed by its pension statute, Article 6243n-1, Vernon's Texas Civil Statutes.

While this guide sets forth most of the facts about the plan, it does not attempt to describe all provisions or limitations as they apply in individual situations. In case of any conflict between the guide and the statute, the statute will prevail. Please feel free to visit, phone, or e-mail us when we may be of assistance.

The System is established as a tax-qualified "defined benefit" plan under Section 401(a) of the Internal Revenue Code in order to provide retirement, death and disability benefits to its members. Group and individual counseling is provided to members by this office. Prior to retirement, the Benefit Services team will prepare a benefits calculation under each of the options and assist in preparations to retire.

## How to Contact APRS



Office Address	•2520 S. IH-35, Suite 100, Austin, TX 78704
Phone	•(512) 416-7672
Fax	•(512) 416-7138
Website	• <a href="http://www.ausprs.org">www.ausprs.org</a>

## Mission Statement

To serve the APRS membership and protect the retirement benefits for the past, present and future members of the System.

## **APRS Board of Trustees**

### **Police Members**

- Sgt. Jim Beck, Chair
- Sgt. Andrew Romero, Vice-Chair
- Ret. Cmdr. Mike Jung
- Cmdr. Todd Smith
- SPO. Tyler Link

### **Retiree Members**

- Ret. Lt. Carl Zimmerman
- Ret. Sgt. Keith Harrison

### **City Designees**

- Kathie Tovo, Mayor Pro Tem
- Elaine Hart, Interim City Manager
- Art Alfaro, City Treasurer

### **Citizen Member**

- Chesley Wood

## **APRS Staff**

Pattie Featherston, Executive Director

Stephanie Willie, Deputy Director

Michelle Ruland, Benefits Manager

John Poth, Finance Manager

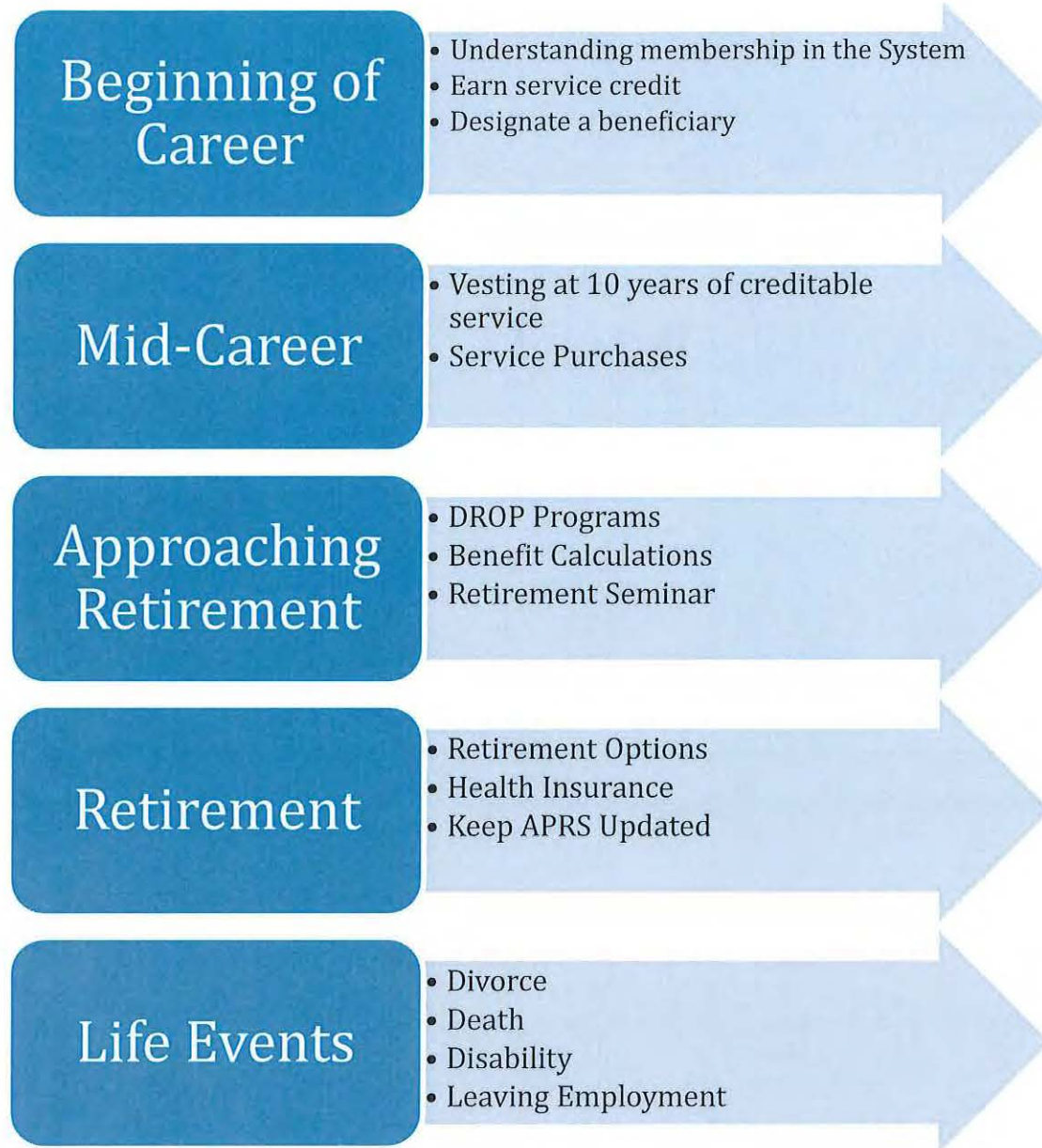
Rose Frank, Operations Manager

Deborah Esparza, Administrative Assistant



# APRS Milestones

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# Membership and Creditable Service

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## Membership

All cadets upon enrollment in the Austin Police Academy, and commissioned law enforcement officers employed by the City of Austin Police Department, as well as full time employees of the City of Austin Police Retirement System (after serving a 6-month probationary period); become members of the Police Retirement System at the date of employment.

## Contributions

Each member of the system contributes 13% of base pay bi-weekly and annual longevity pay through payroll deduction. Overtime or special pay is not included. Contributions continue unless a member is on leave of absence, or withdraws by terminating and/or retiring.

The City of Austin contributes 21.313% of every member's base pay bi-weekly and 21.313% of member's longevity pay annually.

- Once it becomes a part of the retirement fund, the City's contribution is invested for the benefit of all active employees and made available to pay benefits at retirement.
- Most retirees receive benefits equal to all their own contributions and interest, through their monthly annuity payments, within two or three years after retirement. Because of the contributions made by the City and the interest earned on the Fund's investments, money is available to continue paying each retiree monthly benefits according to their selected option as long as they live, long after their own contributions have been received. Contributions and investments earnings also help pay lifetime benefits to the surviving beneficiaries of deceased retirees according to their selected option, and help pay periodic (Ad-Hoc) cost of living adjustments (COLA's).
- Member deposits are deducted from pay before taxes, so they are not taxed until they are received APRS as a benefit payment.
- By law, members cannot borrow from their member account; nor can they use it as collateral for a loan. When a member leaves police employment before becoming eligible for retirement, all member contributions and interest are returned, however no City contributions, or interest earned, will be paid.
- Members receive an 'Annual Statement' from the Austin Police Retirement System in January each year which provides information on total accumulated deposits and interest along with total creditable service. With the final paycheck, one final

contribution will be made to the retirement fund. After that check is issued, the exact amount of refundable contributions can be determined.

- The Board of Trustees annually determines the amount of interest paid on vested members' accumulated deposits, taking into consideration the performance of the fund's investments and the actuary's recommendations. The actuary considers what funds are necessary to pay all the benefits that retirees and their surviving beneficiaries are entitled to, as well as the expected liability for future retirees.
- Retirement interest is paid on December 31st, based on the amount each member has in the Police Retirement System on January 1st of the same calendar year.



## Creditable Service

Creditable service is service that is used in computing retirement benefits. There are seven types of creditable service:

### Membership Service

- Eligible service during employment period where a member makes payroll contributions to the fund.

### Probationary Service

- Eligible service purchased from commission date to retirement system start date in the event it has not been credited.

### Military Service

- Eligible service purchased for up to two years for previous active federal duty military service, prior to employment. A member is not eligible to use this type of military service credit when it has been used as creditable service in another federal or statutory public retirement system in Texas. Members employed after February 1, 2016 will be eligible to purchase benefits by paying the full actuarial cost at the time of retirement.

### Uniformed Leave of Absence Service

- Eligible service for military leave of absence granted from City employment and purchased within five years of reemployment with the City.

### Reinstated Forfeited Service

- Eligible service for prior Austin Police Retirement System membership service that was forfeited by withdrawal of accumulated deposits, and repurchased after 24 consecutive months of membership service after police reemployment. An interest charge of 8% per year is made to the System to reinstate the forfeited service credit.

### Cadet Service

- Eligible service purchased from the date of cadet class enrollment to commission date in the event it has not been credited. Since 1998 Cadets have been contributing to the System during their Cadet service so this purchase is not necessary.

### Permissive Service Credit

- Eligible service that can be purchased at the full actuarial cost by members with at least 20 years of creditable service, excluding pre-membership military service, for up to 60 months with immediate retirement. \*Cannot be used in conjunction with the Deferred Retirement Option Plans.

### Deferred Retirement Permissive Service Credit

- Eligible service of up to 60 months at 20 years of service credit or more with a delayed monthly annuity, excluding pre-membership military service, at full actuarial present value cost. \*Cannot be used in Deferred Retirement Option Plans.



## Proportionate Retirement Program

Participating systems include:

Austin Police Retirement System

City of Austin Employees' Retirement System (COAERS)

The El Paso City Employees' Pension Fund

El Paso Firemen and Policemen's Pension Fund

Employees Retirement System of Texas (ERS)

Judicial Retirement System of Texas I & II

Teacher Retirement System of Texas (TRS)

Texas Municipal Retirement System (TMRS)

Texas County and District Retirement System (TCDRS)

Other Texas retirement systems covering municipal employees who have qualified plans and have elected to participate in the Proportionate Retirement Program

Participating systems recognize service from other participating systems. A member with service credit in more than one participating retirement system may be eligible to combine that service in order to satisfy the length of service requirements used to determine eligibility for service retirement. Please note that proportionate service counts for eligibility purposes only and does not add to additional service credit years for pension calculation purposes.

- Retirement benefits will be paid separately from each system, based only on the service performed in that system.
- Military service purchases may only be used once in determining the amount of the member's combined service credit.
- A member of a participating retirement system who forfeited membership service by withdrawing their deposits may re-establish credit for service earned in another participating proportionate retirement system.

- A member must contact the system in which they previously had membership in order to determine eligibility requirements to re- establish service credit and/or membership. A member should determine their proportionate retirement eligibility before withdrawing member deposits in any of these systems.

**To declare service in another proportionate retirement system:**

- To obtain a proportionate service credit application, go online to [www.ausprs.org](http://www.ausprs.org) > Member Resources > Forms > Active Forms, and download the Active Member Proportionate Service Credit Application. Fill out the form and mail or e-mail it to the System. If the service was with TCDRS, please also send a Statement of Retirement Service Credits from that system.



## **Vesting**

When a member reaches ten (10) years of creditable service which may include approved Proportionate Service Credit if applicable, they become a vested member of the retirement system.

This means that the member has a right to receive a monthly annuity upon retirement eligibility. Even if the member leaves the employment before reaching eligibility, if they are vested, they can decide to leave their contributions in the system and begin drawing an annuity upon reaching age 62, or when they meet other age and service requirements for retirement eligibility.

It is important to note retirement contributions for vested inactive members draw interest. The inactive member's multiplier can increase during the years between the member's termination and retirement, but no cost of living increases are applied to the member's benefit. The Board of Trustees annually determines the amount of interest paid on vested members' accumulated deposits, taking into consideration the performance of the fund's investments and the actuary's recommendations. The actuary considers what funds are necessary to pay all the benefits that retirees and their surviving beneficiaries are entitled to, as well as the expected liability for future retirees.

Retirement interest is paid on December 31st, based on the amount each member has in the Police Retirement System on January 1st of the same calendar year.

## **Beneficiary**

A beneficiary is the person(s) the member chooses to receive payments from the System account if the member dies. This is not to be confused with the survivor for pension benefits, which is chosen at the time of retirement. Although members choose a beneficiary when they are hired, reviewing and updating the beneficiary designation is extremely important to do if any changes occur. The City of Austin beneficiary designation form does not designate beneficiaries for APRS retirement benefits and cannot be used by APRS to pay out death benefits.

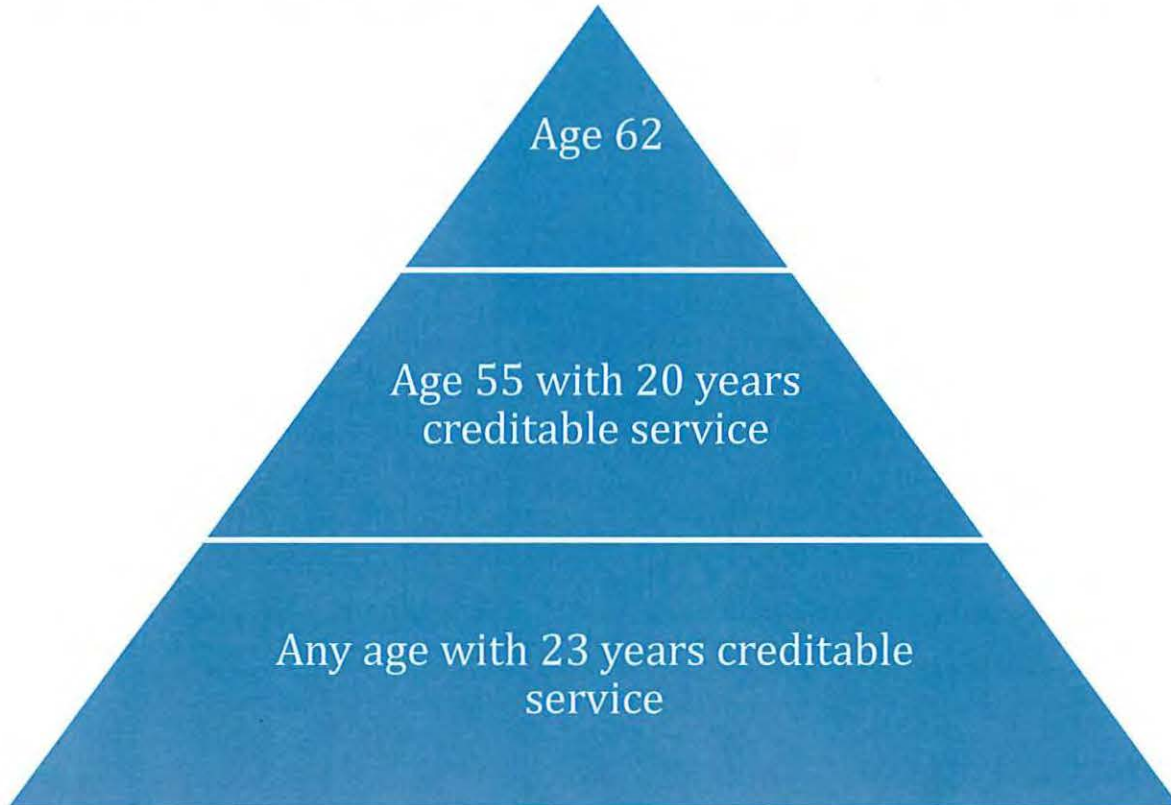
Members can designate a minor as a beneficiary; however, APRS does not pay benefits to minors, therefore a legal guardian of the minor must be appointed by a court. To avoid the complexities of obtaining a court-appointed guardian to receive APRS benefits, Texas law allows members to appoint a custodian to receive APRS funds for any beneficiary who is under 21 years old.

# Retirement

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## Retiring

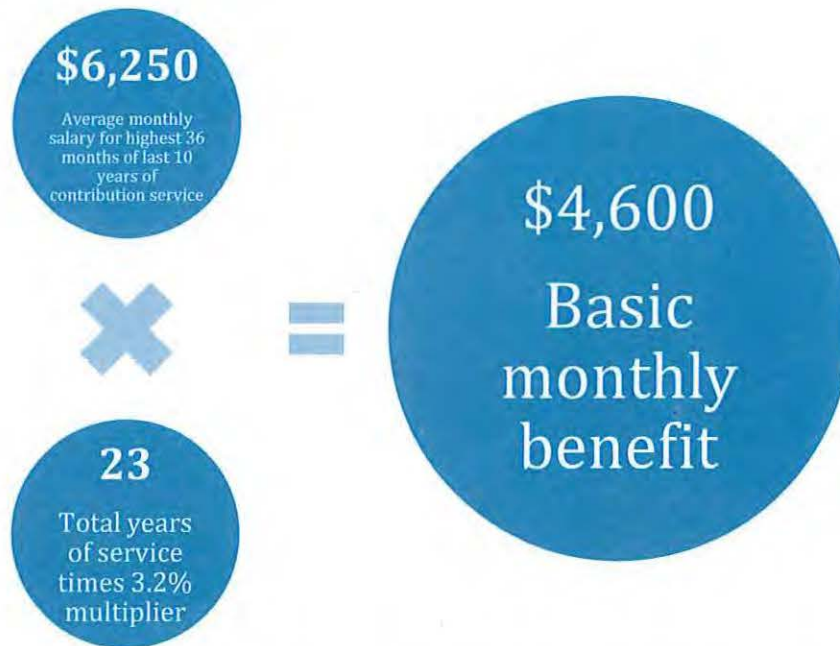
Members are eligible for normal, unreduced retirement when they meet one of the following age and service requirements, excluding pre-membership military service:





## Retirement Benefit Life Annuity Calculation

The basic retirement benefit Life Annuity is calculated by using the following formula. The monthly annuity benefit payment begins the month following the member's retirement from the System. The formula is 3.2% times the years of creditable service times the average monthly salary for the highest 36 months of the last ten years of contributing service. Example:



Although the separation date from the Police Department may be any day throughout the month, pension benefits are paid on the last day of every month.

### Retirement Calculations

- To run a retirement calculation, go online to [www.ausprs.org](http://www.ausprs.org) > Member Resources > Calculator.
- Alternatively, to fill out a Benefit Calculation Request Form, go online to [www.ausprs.org](http://www.ausprs.org) > Member Resources > Forms > Active Forms, and download the Benefit Calculation Request Form. Once completed, you may mail or e-mail it to the System.

Retirement estimates from APRS will be gross figures. From that, APRS will deduct Federal Income Tax and health insurance premiums if the retiree elects to obtain insurance from the City of Austin.

## Retirement Benefit Options

The Police Retirement System provides several options under which monthly benefits may be paid. The options below require verifiable information to be submitted to the System for calculation. **Please note: A member may not change their chosen option or survivor after they have already retired.**

### Life Annuity

- Retirement annuity payable monthly only to the member for life with no survivor benefits.

### 100% Joint and Survivor Annuity

- Retirement annuity payable monthly as long as the member lives. Upon the member's death, the designated survivor will receive the same annuity amount.

### 50% Joint and Survivor Annuity

- Retirement annuity payable monthly as long as the member lives. Upon the member's death, the designated survivor will receive one-half the annuity amount.

### 66-2/3% Joint and Survivor Annuity

- Retirement annuity payable monthly as long the member lives. Upon the member's death, the designated survivor will receive two-thirds the annuity amount.

### Joint and 66-2/3% Last Survivor Annuity

- Retirement annuity payable monthly as long the member lives. At either the member's death or the death of their survivor, the last survivor of the two will receive two-thirds of the annuity amount.

### Fifteen Year Certain and Life Annuity

- Retirement annuity payable monthly as long as the member lives. If their death occurs before they have received 180 payments, their designated survivor or estate will receive the remaining monthly payments. If the member is still living after receiving the 180 payments, payments will continue until their death.

The options that include benefits to a survivor are figured according to the ages of both member and survivor included in the plan.

A member's benefit is permanently reduced if an option is chosen that provides survivor benefits. This reduction is applied to the member's basic benefit relative to the option the member chooses.

The reduction of member benefits is necessary to pay for the continued benefits the survivor is expected to receive.

If a member selects the Life Annuity, the monthly benefit stops at the death of the member. At that time an amount equal to the excess, if any, of the member's accumulated deposits over the amount of payments made to the member will be paid in a lump sum to the member's designated beneficiaries or estate.

If the member chooses an option providing benefits to a survivor, then at the member's death the benefit specified in the option will be paid to the designated survivor for life. If the designee does not survive the member, monthly benefits cease upon the death of the member. The amount equal to the excess, if any, of the member's accumulated deposits over the amount of payments which have been made to both the member and the survivor combined will be paid in a lump sum to other designated beneficiaries, or to the estate of the deceased member.



### **Retroactive Deferred Retirement Option (Retro DROP)**

The retroactive deferred retirement option plan, referred to as Retro DROP, is a one-time benefit paid at retirement to a member with a subsequent associated reduced monthly annuity. To be eligible a member must qualify with a normal service retirement of 23 years at any age, excluding pre-membership military or permissive service credit. The maximum amount of service to be used in computation of the Retro DROP after normal service retirement of 23 years is 36 months.

On the election of Retro DROP, and the selection of the Retro DROP benefit computation date, the member's monthly retirement option is computed as if the member had retired on the chosen Retro DROP benefit computation date. The Retro DROP benefit balance will include the accumulated monthly benefits after 23 years with retiree COLA'S, multiplier increases, member contributions and a 5% simple interest calculation on December 31st for balances on deposit as of January 1st of the same calendar year.

A member who elects Retro DROP receives a one-time benefit with a reduced monthly retirement benefit at retirement date. Permissive Service Credit is not allowed for the DROP program.

- Effective April 1, 2015, the Retro DROP program will only apply to members with 23 years of credible service as of that date.

Certain selections of options and beneficiary designations other than a surviving spouse may have adverse consequences under the Internal Revenue Code of 1986, which may cause a reduction in the amount of benefit payable. Members are urged to consult their attorney or tax advisor prior to a final selection of an option.

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

The Forward DROP allows active police officers to freeze their retirement benefit calculation, but continue working and drawing a paycheck from APD, while their retirement annuity is deferred into a DROP account on their behalf at the retirement system. To be eligible a member must qualify with a normal service retirement of 23 years at any age, as of the date of his or her election to participate in the Forward DROP.

#### **Membership with 23 years of creditable service as of February 17, 2016:**

A member's election to participate in the Forward DROP is irrevocable. The maximum amount of service to be used in computation of the Forward DROP after normal service retirement of 23 years, excluding pre- membership service credit and permissive service credit, is sixty (60) months. The minimum participation period is 90 days. During the period that a member participates in Forward DROP, retirement contributions shall be

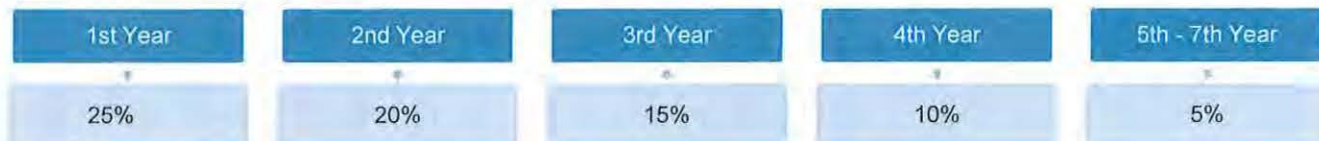


made to the member's Forward DROP account. The Forward DROP benefit balance will include the accumulated monthly benefits during Forward DROP participation, member contributions and a 5% simple interest calculation on December 31st for balances on deposit as of January 1st of the same calendar year. Effective July 1, 2015, the interest rate for new DROP member's interest will be the same as PROP.

**Membership with 23 years of creditable service after February 17, 2016:**

A member's election to participate in the Forward DROP is irrevocable. The maximum amount of service to be used in computation of the Forward DROP after normal service retirement of 23 years, excluding pre-membership service credit and permissive service credit, is eighty-four (84) months. The minimum participation period is 90 days. During the period that a member participates in Forward DROP, employee contributions will be collected but not credited to the member's Forward DROP account. There will be no interest applied to the member's Forward DROP account. In addition, a fee is applied to the participant's monthly Forward DROP amount.

Graduated fee structure:



If a member electing to participate in Forward DROP decides to continue employment covered by the Act governing the System after he or she has participated in Forward DROP for the maximum number of months allowed, no further annuity deferrals or member contributions shall be deposited to the members Forward DROP account after that period. In that event, the member shall continue making all contributions required under the Act governing the System, however, these contributions will not be used in the pension benefit calculation and the member will not receive any further service credit for time worked.

Certain selections of options and beneficiary designations other than a surviving spouse may have adverse consequences under the Internal Revenue Code of 1986, which may cause a reduction in the amount of benefit payable. Members are urged to consult their attorney or tax advisor prior to a final selection of an option.

## Applying for Retirement or Enrollment in DROP

To apply for APRS retirement or to enroll in one of the DROP programs, the member will need to make an appointment with the APRS Benefits Manager no less than 15 days and no more than 90 days prior to retirement.

Remember that retiring from APRS and notifying the department of intent to retire are separate processes. Please check with APD HR for their requirements.

The APRS effective retirement date will always be the last day of the month, the retirement date is with the department is the members actual last day of employment. The first pension payment will be made at the end of the month following the retirement month.

### Retirement Checklist

The following forms will need to be provided to APRS at the retirement appointment. If a survivor option is chosen, APRS will need these documents for the survivor as well:

- ✓ Birth Certificate
- ✓ Texas drivers' license
- ✓ Marriage License  
(if applicable)
- ✓ Social Security Card
- ✓ Direct deposit slip or voided check
- ✓ QDRO (if applicable)



## **Post Retirement Option Plan (PROP)**

Instead of receiving a single lump-sum payment, a member may elect to receive partial payments from the member's RETRO or Forward DROP account by transferring the funds into a PROP, in an amount elected by the member.

- The board may establish procedures concerning partial payments, including limitations on timing and frequency of those payments. A member who elects partial payments may, at any time, elect to receive the member's entire remaining RETRO or Forward DROP account balance in a single lump-sum payment, with the payment to be made under rules adopted by the board.
- Partial payments are limited to two (2) distributions per calendar year. If a third distribution is requested, the full PROP balance must be paid and the account must be closed.
- If a member elects partial payments, the member's RETRO or Forward DROP funds in the PROP account shall be credited with earnings or losses of the system while they remain in the account. These earnings or losses will be determined at an annual rate established under a rule adopted by the board, which can be amended by board rule.
- Retirees who are in the PROP and wish to take a distribution from the account should contact the System.

## **Post Retirement Option Plan (PROP) Monthly Annuity Deferral Program**

The PROP Monthly Annuity Deferral plan allows retired members to defer receipt of a minimum of \$250 of their monthly annuity in order to defer the taxation of the deferred payments and to have the monthly benefits accumulate for later disbursement and later taxation in a Post Retirement Option Plan account.

- Special rules provide for a one-time period of deferral that would cease at the earliest of: (1) the date payment on the monthly benefit is requested, or (2) age 70½ is attained, at which time IRS requires distribution.
- Making an election to defer a member's monthly annuity into PROP or revoking that election can have adverse tax consequences in some situations, especially if the member terminated active service before the year in which he or she attained age 50. Therefore, the election should not be made until the member has discussed the matter with a professional financial planner or tax advisor who is knowledgeable about the tax treatment of distributions from qualified tax plans.
- Retirees wishing to enroll in this program or change their deferral amounts should contact the System.
- Participants are allowed to change their deferral amount twice per calendar year.

# Retiree Information

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## **Retiree Health Insurance**

Basic medical and dental insurance coverage is available through the City of Austin Human Resources Benefits Division.

Retirees have several choices of insurance carriers and coverage options. Any questions about carriers and plan coverage choices should be directed to the City of Austin Benefits Office at <http://www.austintexas.gov/retirees> or One Texas Center, 505 Barton Springs Rd., Suite 600, Austin, Texas 78704, or by phone at (512) 974-3284.

## **HELPS Provision for Retired Public Safety Officers**

The federal Pension Protection Act of 2006 allows eligible retired public safety officers to exclude up to \$3,000 of their retiree health insurance premiums from their gross taxable income each year, as long as the premiums are deducted from their retirement benefit. The premiums can be for coverage of the retiree, their spouse, or dependents. The amount used to pay these premiums will remain taxable until the retiree makes the election to exclude these premiums on the personal income tax returns. Retirees can check their annual IRS Form 1099 for the amount they have paid for health insurance premiums. The IRS Form 1040 will contain special codes for the retiree to indicate that they are electing to exclude the health insurance premiums from their taxable income. Retirees should consult with their tax advisor or the IRS to determine if they can use this provision when they file their federal income tax returns.



## Post Retirement Information Changes

Many retirees relocate or change their information after retirement. It is important to keep APRS updated with any changes.

### Address Changes

- Go online to [www.ausprs.org](http://www.ausprs.org) > Member Resources > Forms > Retiree Forms, and download the Address Change Form. Once the form is completed, mail it to the System.

### Bank Account Changes

- Go online to [www.ausprs.org](http://www.ausprs.org) > Member Resources > Forms > Retiree Forms, and download the Bank Account Change Form. Fill out the form and mail it to the System. Be sure to include a voided check or deposit slip for verification.

### Tax Withholding Updates

- Go online to [www.ausprs.org](http://www.ausprs.org) > Member Resources > Forms > Retiree Forms, and download the Retiree Tax Withholding Form. Fill out the form and mail it to the System.

### Legal Name Changes

- Go online to [www.ausprs.org](http://www.ausprs.org) > Member Resources > Forms > Retiree Forms, and download the Legal Name Change Form. Fill out the form and mail it to the System. Be sure to include the necessary proof of this change that is listed on the form.

### Beneficiary Updates

- Go online to [www.ausprs.org](http://www.ausprs.org) > Member Resources > Forms > Retiree Forms, and download the Beneficiary Designation Form for Death Benefits. Once the form is completed, mail it to the System.
- The Beneficiary Designation Form can also be updated electronically and submitted online. Go online to [www.ausprs.org](http://www.ausprs.org) > Member Resources > Beneficiary Designation Form for Death Benefits, complete the corresponding fields and hit submit.

# Life Events

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## Divorce

A Qualified Domestic Relations Order (“QDRO”) means an order which creates or recognizes the existence of an alternate payee’s right or assigns to an alternate payee the right to receive all or a portion of the benefits payable with respect to a member or retiree under the Austin Police Retirement System. It directs the System to disburse benefits to the alternate payee. Texas is a community property state, so any APRS benefits earned during a marriage may be divided by a court in a divorce proceeding. If, during a divorce proceeding, it is determined that the member will keep 100% of their retirement benefit, APRS does not need any paperwork from the member. However, if it is determined that the member and their spouse will be dividing the APRS benefit, a QDRO must be submitted. An “Alternate payee” means a spouse, former spouse, child, or other dependent of a member or retiree who is recognized by the domestic relations order as having a right to receive all or a portion of the benefits payable by a public retirement system. The System will establish an account for the alternate payee to receive payment(s) as ordered by the Court.

For APRS to pay benefits to the alternate payee, the QDRO must meet specific requirements. If it does not meet those requirements, it will not be honored, which could result in delays and additional legal costs. It is recommended that the APRS model QDRO is used.





# Disability

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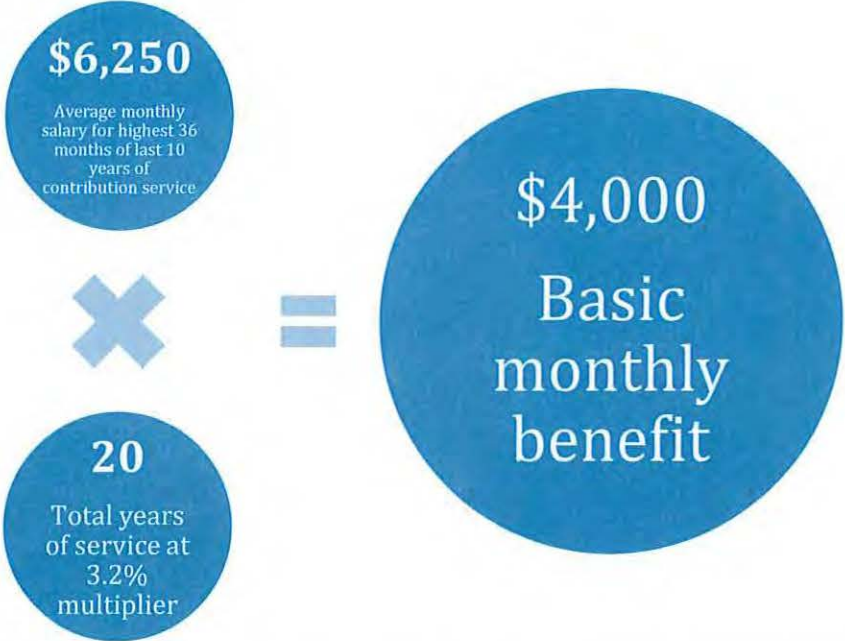
## Disability Retirement Benefits

To be eligible for disability retirement, the applicant must be unable to perform employment duties due to medical or emotional restriction's and/or diagnosis. The disability must be considered a permanent job performance disability. The disability must also be subsequent to the member's effective date of membership AND,



- Application made by or on behalf of a member must show that the incapacity is likely to result in the member's inability to perform the duties of a position offered in the police department, or any other department in the City, that pays as much or more than the current pay of the position the member was holding on the date of the member's disability.
- Disability applications are presented to the Disability Committee of the System's Board of Trustees, whose recommendations are reported to the Board. The Board has the final authority in granting disability retirement benefits.

Disability retirement benefits are calculated using the following formula: 3.2% times years of creditable service times average monthly salary for the highest 36 months of the last ten years of contributions by payroll deduction. Example:



Disability retirees are required annually to provide proof of continued disability to the Board of Trustees.



# Death and Survivor Benefits

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## Death and Survivor Benefits

### Active or vested member death

- Designated beneficiary(ies) are entitled to a lump sum payment of twice the members accumulated contributions.
- Minimum \$10,000.

### Active or vested member eligible to retire

- The designated survivor will be entitled to receive monthly payments under a retirement option in lieu of a lump sum death benefit.
- In the event a member who is eligible for service retirement dies without making a written option selection, and the member leaves a surviving spouse, the surviving spouse may select a retirement option in the same manner as the member would have made or may select a lump sum payment equal to twice the members accumulated deposits.
- If there is no surviving spouse, the deceased member's designated beneficiary may elect to receive payment under Option V, a Fifteen Year Certain and Life Annuity, which will pay monthly benefits for a period of fifteen years, or a lump sum payment equal to twice the member's accumulated deposits.
- When monthly benefits are payable in lieu of a lump sum, a \$10,000 taxable death benefit will be paid to the beneficiary(ies).

### Death of a retiree

- A tax-free death benefit of \$10,000 (or a proportionate amount if the member retired under the Proportionate Retirement Program) is paid to the designated beneficiary(ies) or estate.
- If the member has a PROP or DROP account at the time of their death, those funds are paid to the designated beneficiary(ies) for those programs.
- If a survivor option was chosen, the elected survivor begins to receive the elected portion of the annuity. If the Life Annuity was chosen, the monthly benefits cease.

# Leaving the System

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## Termination of Employment / Refunds

When a member leaves the City as a cadet or a commissioned officer, they will be required to fill out a Designation of Retirement Deposits form electing an option to receive retirement contributions and where to send them. The form can be obtained by going online to [www.ausprs.org](http://www.ausprs.org) > Member Resources > Forms > Active Forms, and download the Designation of Retirement Deposits Form. Fill out the form and mail it to the System.

Refund choices are as follows:

### Take a direct refund of the contributions

- A retirement contribution refund check can be issued approximately two weeks after the final employment check is issued. It will be mailed to the address on the refund form.
- Federal Income Tax will be withheld on all untaxed contributions and interest at 20% of the total taxable amount.

### Rollover the contributions

- Member contributions can be transferred to an I.R.S. qualified retirement plan through a direct rollover by submitting a letter of transfer to the System.
- Federal Income Tax will not be withheld but the funds will be moved to the qualified retirement plan on the member's behalf.

### Declare vested status

- A member can choose to take advantage of their vested right to an annuity when they reach retirement eligibility.
- If the member indicates that they want to vest their benefits, member contributions will remain in the retirement system until the member reaches retirement eligibility and requests receipt of the monthly annuity.
- Member contributions may continue to earn interest until their monthly annuity begins or the member refunds their contributions.

### Declare proportionate retirement program status

- Member contributions may be left in the System if the member is eligible to do so under the rules of the proportionate retirement program.



# APRS Office Location

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Phone	•(512) 416-7672
Fax	•(512) 416-7138
Website	• <a href="http://www.ausprs.org">www.ausprs.org</a>

