



A Component Unit of

The City of Houston, Texas

Comprehensive Annual Financial Report

for the years ended June 30, 2015 and June 30, 2014



**HOUSTON POLICE OFFICERS' PENSION SYSTEM**

John E. Lawson, Executive Director

602 Sawyer, Suite 300

Houston, TX 77007

713.869.8734

713.869.7657 Fax

[www.hpops.org](http://www.hpops.org)



The mission of the Houston Police Officers' Pension System is to responsibly manage the System in the best interests of the members and beneficiaries so that they may have peace of mind knowing their pension benefits are secure.

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**HOUSTON POLICE OFFICERS'  
PENSION SYSTEM**

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# HPOPS

FOR TODAY & TOMORROW



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December 21, 2015

The Membership  
Houston Police Officers' Pension System  
Houston, Texas

The Comprehensive Annual Financial Report (CAFR) of the Houston Police Officers' Pension System (the System) for the fiscal year ended June 30, 2015 is submitted herewith. Responsibility for both the accuracy of the data, and the completeness and fairness of the presentation, rests with the management of the System. We trust that you will find this CAFR helpful in understanding your retirement system, a system that strives to provide responsible stewardship of assets contributed by the members and the City of Houston. This CAFR is divided into five sections:

**PENSION BOARD**

Terry A. Bratton  
CHAIRMAN

George Guerrero  
VICE CHAIRMAN

J. Larry Doss  
SECRETARY

Michael J. Newsome  
TRUSTEE

Dwayne Ready  
TRUSTEE

Vacant  
CITY TREASURER

Fletcher Thorne-  
Thomsen, Jr.  
MAYOR'S  
REPRESENTATIVE

**EXECUTIVE DIRECTOR**  
John E. Lawson

- **Introductory Section** – This section contains the administrative organization, the letter of transmittal and Chairman's report.
- **Financial Section** – This section contains the report of the Independent Auditor, Management's Discussion and Analysis, the financial statements of the System and certain required supplementary information.
- **Investment Section** – This section contains a report on investment activity, investment policies, investment results, and various investment schedules.
- **Actuarial Section** – This section contains the Actuary's Certification Letter and summary results of the annual actuarial valuation.
- **Statistical Section** – This section includes historical financial and benefits related data pertaining to the System.

The financial statements and related information included in the *Financial Section* of this report are the responsibility of the Board of Trustees and management of the System. The financial statements have been prepared in accordance with generally accepted accounting principles (GAAP) and presented in accordance with guidance provided by applicable statements issued by the Governmental Accounting Standards Board (GASB). The System's independent auditor, BDO, conducted an independent audit of the basic financial statements in accordance with U.S. generally accepted auditing standards. This audit is described in the *Independent Auditors' Report* found in the *Financial Section*. Management has provided the external auditors with full and unrestricted access to the System's staff to discuss their audit and related findings to facilitate independent validation of the integrity of the plan's financial reporting.

The *Financial Section* also contains *Management's Discussion and Analysis*, which serves as an introduction to and an overview of the financial statements. The System is considered a component unit of the City of Houston for financial reporting purposes and, as such, the financial statements in this report are also included in the *City of Houston's Comprehensive Annual Financial Report*.

In developing and evaluating the System's accounting system, the adequacy of internal accounting controls is a primary concern. The System's controls are designed to provide reasonable assurance regarding the safekeeping of assets and the reliability of financial records. These controls include strategic design of the System's business and accounting systems, the appropriate segregation of duties and responsibilities, sound practices in the performance of those duties, capable personnel, and the structure of the organization. There are limits to internal control, such as the cost to mitigate some risks may outweigh the risk itself, internal controls may be overridden, or collusion may thwart control design. We believe the System's internal controls are adequate and are working as designed.

**Houston  
Police Officers'  
Pension System**

602 Sawyer, Suite 300  
Houston, Texas 77007  
(713) 869-8734 phone  
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**TRANSMITTAL LETTER**

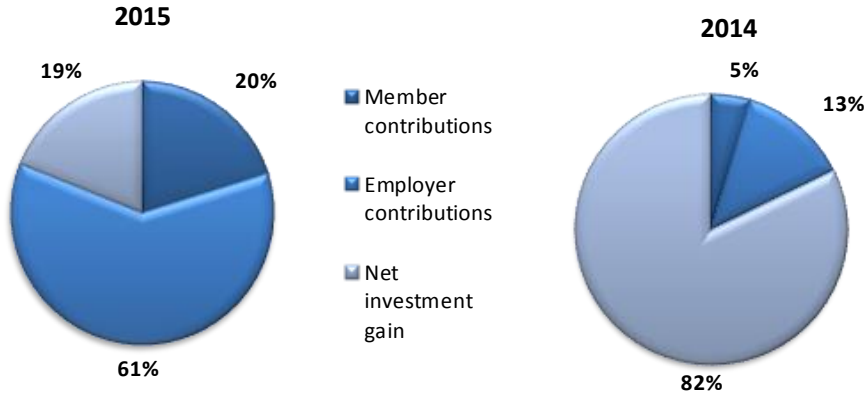
The System was established in 1947, funded by a \$100,000 Treasury note, and offered retiring members a pension of \$75 per month. Today, the System has investments of over \$4.3 billion and offers a variety of pension benefits to members and their beneficiaries. Members have the option to defer their benefits, take a proportionate retirement benefit, or retire under a regular service retirement. Members also may access a disability retirement, either duty or non-duty connected.

**Additions to Plan Net Assets**

The System relies on the contributions of members and the City of Houston, as well as income generated from investments, to provide funds needed to finance retirement and disability benefits. The agreement with the City provides for the City’s contribution for fiscal year 2015 to be \$113 million and a contribution receivable of \$25.5 million for contribution shortfalls from fiscal years 2012 and 2013. The City gave the System an undivided interest in the Houston Police Department Headquarters and a parking garage, both owned by the City, to secure the contribution receivable. As of June 30, 2015, the property remained unsold, and on July 1, 2015, the City paid the System \$25,500 thousand to buy back the System’s undivided interest. For fiscal year 2016, the City’s contribution is to be a fixed payment of \$123 million, which will increase by \$10 million each subsequent year until the funded ratio reaches 100%. The number of active members decreased slightly in fiscal year 2015 compared to 2014 as the number of retirements outpaced new hires to the Houston Police Department (HPD). Contributions from members increased in fiscal 2015 as the number of active members hired or rehired after October 9, 2004 increased. These members contribute 10.25% of pay while members hired prior to October 9, 2004 contribute 9.00% of pay. The System experienced a positive investment return of 0.8% in 2015, as opposed to a positive return of 17.4% in 2014. This decrease was mainly due to weak international performance based on declining oil prices, intensifying deflationary pressures and concerns about China’s growth and a possible Greek exit from the Eurozone.

Active members:			Increase
	2015	2014	(Decrease)
Fully vested	2,007	1,931	76
Nonvested:			
Hired or rehired before October 9, 2004	1,168	1,447	(279)
Hired or rehired after October 9, 2004	2,087	1,969	118
	<u>5,262</u>	<u>5,347</u>	<u>(85)</u>

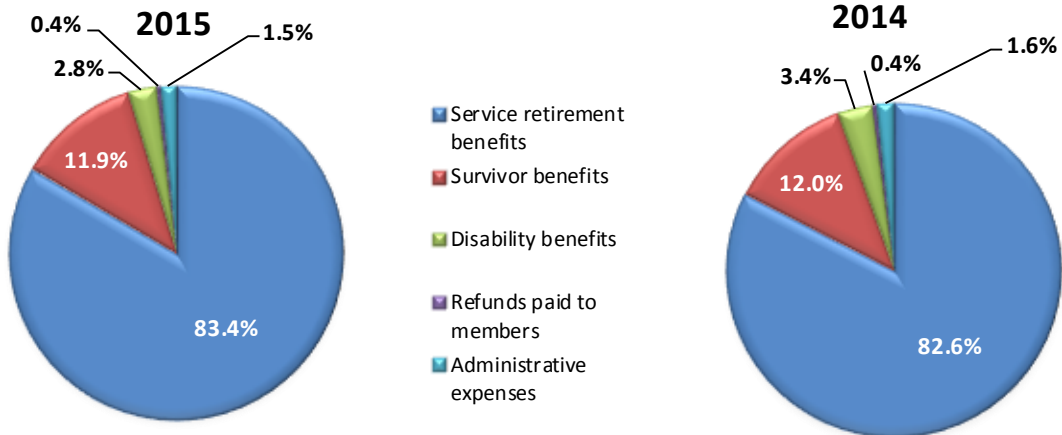
	\$000's		Increase	Increase
	2015	2014	(Decrease) Amount	(Decrease) Percentage
Member contributions	\$ 37,719	\$ 37,012	\$ 707	1.9%
Employer contributions	113,665	103,372	10,293	10.0%
Net investment gain	35,341	649,153	(613,812)	-94.6%
Total	<u>\$ 186,725</u>	<u>\$ 789,537</u>	<u>\$ (602,812)</u>	<u>-76.4%</u>



**Deductions from Plan Net Assets**

The System was created to provide retirement benefits to retired Houston police officers and their dependents. Although this is still the primary purpose of the System, over the course of 68 years the System has also added survivor benefits and disability benefits. The cost of these programs includes benefit payments and refunds of contributions to terminated employees. The cost of administering the System is also paid from System assets.

	\$000's		Increase (Decrease) Amount	Increase (Decrease) Percentage
	2015	2014		
Service retirement benefits	\$ 191,907	\$ 178,348	\$ 13,559	7.6%
Survivor benefits	27,356	25,953	1,403	5.4%
Disability benefits	6,393	7,389	(996)	(13.5%)
Refunds paid to members	945	906	39	4.3%
Administrative expenses	3,478	3,439	39	1.1%
<b>Total</b>	<b>\$ 230,079</b>	<b>\$ 216,035</b>	<b>\$ 14,044</b>	<b>6.5%</b>



Total benefits paid, which include lump sum payments, increased in 2015 as compared to 2014 due mainly to the cost of living increase and an increase in the number of retirees. Administrative expenses increased mainly due to expenses related to the System’s enterprise software system and replacement of office equipment. For further information regarding the System’s financial condition, refer to Management’s Discussion and Analysis in the Financial Section of this report.

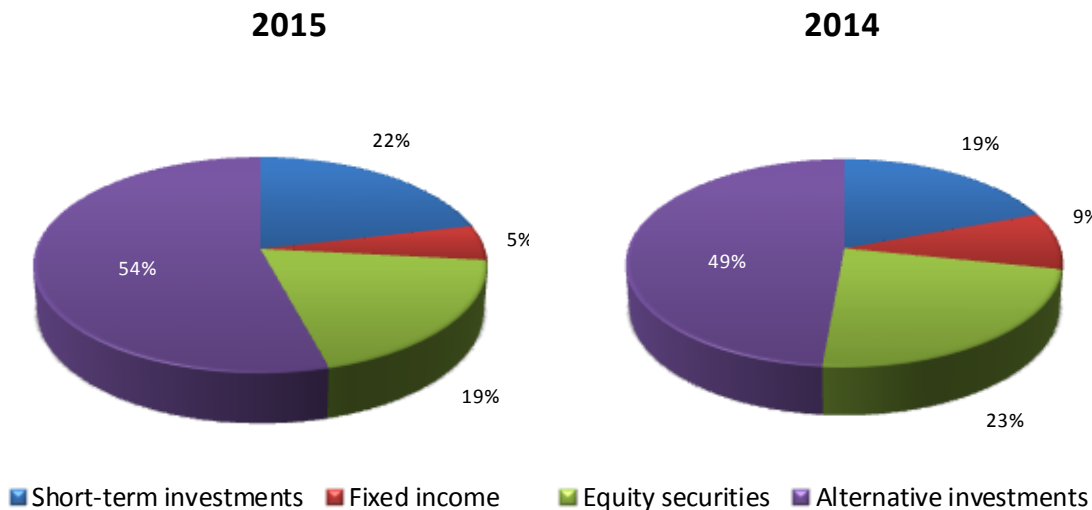


**Investments**

The System invests funds entrusted to it exclusively for the benefit of its members. It avows an investment rule commonly known as the “prudent expert” rule, whereby from a procedural as well as substantive standpoint, it acts with the care, skill, prudence and diligence that a “prudent expert” acting in a similar capacity would act under similar circumstances.

The Board of Trustees believes that the System’s assets should be managed in a way that reflects the uniqueness of the System, and that the System’s assets should be diversified over a spectrum of investment vehicles. The determination of the appropriate asset mix is based on capital market assumptions that incorporate both historical and projected returns, volatility, liquidity and correlations of various asset classes.

	\$000's		Increase (Decrease) Amount	Increase (Decrease) Percentage
	2015	2014		
Short-term investments	\$ 915,270	\$ 831,028	\$ 84,242	10.1%
Fixed income	225,728	383,346	(157,618)	(41.1%)
Equity securities	817,127	997,732	(180,605)	(18.1%)
Alternative investments	2,319,640	2,090,767	228,873	10.9%
<b>Total</b>	<b>\$ 4,277,765</b>	<b>\$ 4,302,873</b>	<b>\$ (25,108)</b>	<b>(0.6%)</b>



The markets began the year gaining and losing the same ground month after month as weak international performance was offset at times by domestic growth only to see that domestic growth disappear when earnings growth expectations across all sectors declined. Volatility increased due to a sharp decline in oil prices and intensifying deflationary pressures, which carried on into the second half of the year with concerns about the health of the U.S. economy, China and the rising risks of a Greek exit from the Eurozone.

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## **TRANSMITTAL LETTER**

The System weathered all of the turmoil and uncertainty in the markets with a positive return of 0.8% during fiscal year 2015, however the System under-performed its benchmark rate of return by 2.3%, primarily due to its allocation to risk parity and the MLP classification within the U.S. equity portfolio. The System's domestic equity allocation underperformed its benchmark by 4.1%, and the System's international equity allocation, returning a negative 2.5%, outperformed compared to the negative 5.3% return of its benchmark. The System's alternative investments in private equity and real estate outperformed their benchmarks respectively by 3.7% and 6.7% while the System's energy allocation outperformed its benchmark by 11.3%.

The Board firmly believes that by maintaining a disciplined investment approach and with reasonable diversification, the System will enhance the likelihood of meeting its long-term investment goals. Further details regarding the System's investments are included in the Investment Section of this report.

### **Funding**

It is the System's intention to have enough money in reserve to provide members with promised benefits upon their retirement. The System's actuary conducts a periodic valuation to determine the adequacy of the current employer contribution rates, to describe the current financial condition of the System, and to analyze changes in the System's condition. An actuarial accrued liability is the liability for service already rendered by former and present employees. An actuarial accrued surplus is the excess of the System's actuarial value of assets over the actuarial accrued liability. Any liability or surplus is amortized using a 30-year constant level percent of payroll method.

The most recent actuarial valuation shows the funded position of the System decreased slightly from 81.3% at July 1, 2013 to 81.0% at July 1, 2014. The actuarial accrued liability increased \$354 million and the actuarial value of assets increased \$272 million. As a result, the System's Unfunded Actuarial Accrued Liability increased \$82 million to \$1,021 million as of July 1, 2014. The increase in the Unfunded Actuarial Accrued Liability is due to a combination of factors including the increase in the actuarial value of assets less than assumed and contributions below the actuarially required amount as more fully described in the footnotes and schedules to the financial statements. Further details regarding the System's actuarial liability are included in the Actuarial Section of this report.

### **Major Initiatives**

The System continues to provide a high level of service to our members. The Financial Planning and Estate Planning services allow members to meet one on one with System professional staff to discuss financial issues and work to prepare different legal documents in order to protect the member's estate. These services are free of charge and continue to be highly valued by System members.

The System's staff is still engaged in multiple projects to update and enhance the technology and infrastructure used to administer the System. The Member Website continues to grow and provide members and survivors more information on their benefits and provide them a self-service for standard processes. The System continues to receive positive feedback and increased participation through the Member Website.

### **Professional Services**

The Board of Trustees appoints professional consultants to perform services that are considered essential for the operation of the System. The independent auditor's report, issued by BDO USA, LLP, is included on page 17 of this report. The actuarial report, certified by Gabriel Roeder Smith & Company, is included on page 59. Professional service providers who provided services to the System during the year are listed on the next page.

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**TRANSMITTAL LETTER**

<b>Actuarial</b>	Gabriel Roeder Smith & Company	<b>Money Management</b>	AQR Capital Management LLC BlackRock Institutional Trust Company Blackstone Alternative Solutions LLC Brevan Howard Capital Management LP Bridgewater Associates, Inc. Dimensional Fund Advisors First Quadrant LP The Northern Trust Company PanAgora Asset Management, Inc. Parametric Shenkman Capital Management, Inc.
<b>Auditing</b>	BDO USA, LLP Bickley Prescott & Co.		
<b>Consulting</b>	Franklin Park Associates, LLC Mercer Investment Consulting Inc.		
<b>Custodian</b>	The Northern Trust Company		
<b>Legal Service</b>	Gibbs & Bruns, LLP Strasburger & Price, LLP		
<b>Legal Service/Lobbyists</b>	HillCo Partners, LLC Locke Lord LLP		

### Certificate of Achievement

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Houston Police Officers' Pension System for its comprehensive annual financial report for the fiscal year ended June 30, 2014. This was the 21st consecutive year that the System has achieved this prestigious award. In order to be awarded a Certificate of Achievement, a government unit must publish an easily readable and efficiently organized comprehensive annual financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

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

### Acknowledgements

The compilation of this report reflects the combined effort of the System's staff under the guidance of the Board of Trustees. Its goal is to provide complete and reliable information as a basis for management decisions and compliance with legal provisions as well as responsible stewardship of funds contributed by its members and the City of Houston.

We would like to take this opportunity to express our gratitude to the staff, System advisors, and to the many other people who have contributed to the successful operation of the System.

Sincerely,



Board of Trustees



December 21, 2015

To the Members  
Houston Police Officers' Pension System  
Houston, Texas

**PENSION BOARD**

*Terry A. Bratton*  
CHAIRMAN

*George Guerrero*  
VICE CHAIRMAN

*J. Larry Doss*  
SECRETARY

*Michael J. Newsome*  
TRUSTEE

*Dwayne Ready*  
TRUSTEE

*Vacant*  
CITY TREASURER

*Fletcher Thorne-Thomsen, Jr.*  
MAYOR'S REPRESENTATIVE

**EXECUTIVE DIRECTOR**  
*John E. Lawson*

The Houston Police Officers' Pension System (HPOPS) is pleased to bring you the fiscal year 2015 Comprehensive Annual Financial Report (CAFR). The CAFR provides a comprehensive picture of HPOPS' finances for the fiscal year ending June 30, 2015, as well as an overview of the year's highlights.

This past year presented a challenge to preserving the capital entrusted to the System. Markets seemed to deal with one obstacle after another throughout the entire year. Early in the year, international markets struggled with plunging oil prices and deflationary pressures which were offset by domestic growth that then dissipated based on weak economic reports. In the second half of the year, hopes for recovery and growth gave way to continued volatility fueled by concerns about China's economy, the risk that the Greek financial crisis would destabilize the Euro, and the overall impact to the health of the U.S. economy. Through this tumultuous year, the System successfully preserved capital, posting a return of 0.8%

HPOPS will continue to diligently maintain perspective with an ever vigilant eye on the opportunities and risks in the coming year. The lessons learned over the past few years and our stewardship allow us to fulfill our mission to responsibly manage the System in the best interests of the members and beneficiaries so that they may have peace of mind knowing their pension benefits are secure. I wish to express appreciation to the staff and professional consultants who work so effectively to ensure the continued successful operation of HPOPS.

We at HPOPS continue to plan for the future of all of our current members as well as those members to come. We encourage you to read on to learn more about HPOPS.

Sincerely,

Terry A. Bratton  
Chairman

**Houston  
Police Officers'  
Pension System**

602 Sawyer, Suite 300  
Houston, Texas 77007  
(713) 869-8734 phone  
(713) 869-7657 fax  
www.hpops.org

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**BOARD OF TRUSTEES AND ADMINISTRATIVE STAFF**

**TRUSTEES ELECTED BY ACTIVE, INACTIVE AND RETIRED POLICE OFFICERS**

---



**TERRY BRATTON**  
*Chairman*



**GEORGE GUERRERO**  
*Vice-Chairman*



**J. LARRY DOSS**  
*Secretary*



**DWAYNE READY**  
*Trustee*



**MICHAEL J. NEWSOME**  
*Trustee*

**TRUSTEES BY STATE STATUTE**

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Vacant  
*City Treasurer*

**FLETCHER THORNE-THOMSEN, JR.**  
*Mayor's Representative*

**POLICE PENSION OFFICE PERSONNEL**

---

**JOHN E. LAWSON**  
*Executive Director*

**TONI DEWILLIS**  
*Administrative Assistant*

**ANGELA CARTWRIGHT**  
*Receptionist*

**CLARK OLINGER**  
*Benefits Director*

**SHERYL BAINES**  
*Benefits Assistant*

**REGINA WARD**  
*Benefits Assistant*

**JUDY G. BAKER**  
*Benefits Manager*

**TIFFANY WILLIAMSON**  
*Benefits Assistant*

**RICHARD GABLE**  
*Financial Planner*

**PATRICK S. FRANNEY**  
*Chief Investment Officer*

**STACEY GALO**  
*Investment Analyst*

**NEAL WALLACH**  
*Investment Analyst/Strategist*

**KEVIN T. O'TOOLE**  
*Accounting Director*

**LAJUANA WINTERS**  
*Accountant*

**STEPHANIE SEGURA**  
*Records Manager*

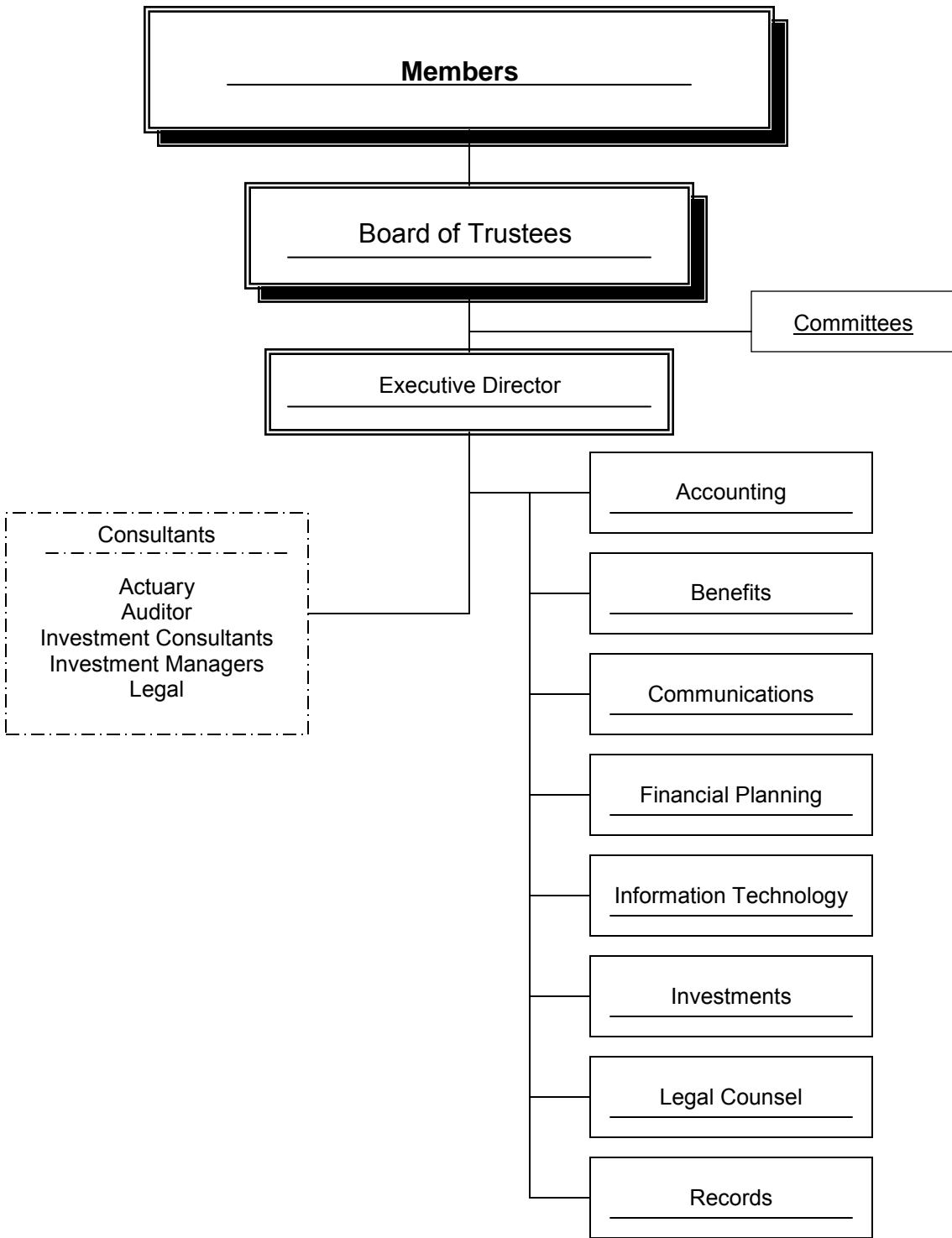
**BRIAN POER**  
*IT Director*

**Greg Simeon**  
*IT Systems Administrator*

**NICK DANG**  
*General Counsel*

**CHRISTOPHER FLORES**  
*Attorney*

**ORGANIZATION CHART**



See Page 46 – Summary of Investment and Professional Services for a list of Consultants



Government Finance Officers Association

**Certificate of  
Achievement  
for Excellence  
in Financial  
Reporting**

Presented to

**Police Officers Pension System  
of the City of Houston, Texas**

For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended

**June 30, 2014**

Executive Director/CEO

SECTION TWO  
**FINANCIAL SECTION**

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FINANCIAL SECTION





## Independent Auditor's Report

The Board of Trustees  
Houston Police Officers' Pension System  
Houston, Texas

### *Report on the Financial Statements*

We have audited the accompanying financial statements of Houston Police Officers' Pension System (the System), a component unit of the city of Houston, Texas, which comprise the statements of fiduciary net position as of June 30, 2015 and 2014, 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*

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 audits to obtain reasonable assurance about whether the financial statements are free from material misstatement.

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

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

### *Opinion*

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the System as of June 30, 2015 and 2014, and the changes in its financial position for the years then ended, in accordance with accounting principles generally accepted in the United States of America.



### *Emphasis of Matter*

The System has adopted the disclosure requirements of GASB 67, Financial Reporting for Pension Plans in 2014. The provisions of the additional disclosure requirements are discussed in Note 7 to the financial statements. Our opinion is not modified with respect to this matter.

### *Other Matters*

#### *Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that "Management's Discussion and Analysis" and the "Required Supplementary Information" listed on the Table of Contents be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to these 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 audits of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

#### *Other Information*

Our audits were conducted for the purpose of forming an opinion on the basic financial statements as a whole. The accompanying supplemental schedules of "Investment, Professional and Administrative Expenses" and "Summary of Investments and Professional Services" are presented for the purpose of additional analysis and are not a required part of the basic financial statements. Such information is the responsibility of the System's management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audits of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the basic financial statements as a whole.

*BDO USA, LLP*

November 10, 2015

# Houston Police Officers' Pension System

## Management's Discussion and Analysis Fiscal Year Ended June 30, 2015

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The discussion and analysis of the financial performance of the Houston Police Officers' Pension System (the System), provides an overall review of the System's financial activities for the fiscal years ended June 30, 2015, 2014 and 2013. The intent of this discussion and analysis is to look at the System's financial performance as a whole; readers should review the financial statements, notes to the financial statements, required supplementary information and other schedules, in order to enhance their understanding of the System's financial performance.

### Financial Statements

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These financial statements consist of the Statements of Fiduciary Net Position, Statements of Changes in Fiduciary Net Position, Notes to Financial Statements, Schedules, and other unaudited required supplementary information. The System is a single employer contributory defined benefit pension plan. The System is a component unit of the City of Houston, Texas (the City) only to the extent the System receives contributions equal to a fixed amount or percentage of the pensionable pay of active members in accordance with Article 6243g-4, Vernon's Texas Civil Statutes (the Governing Statute), or contracts pursuant to Section 27 thereof, and as such, its reports are included in the Fiduciary Funds of the City as restricted assets.

### Financial Highlights

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The System presents its financial statements solely on the accounts of the System. The accrual basis of accounting is used by the System, whereby revenues are recognized when they are earned and collection is reasonably assured, and expenses are recognized when the liability has been incurred. Investments are reported at fair value.

A summary of the Statements of Fiduciary Net Position for the System is as follows (\$000's):

As of June 30:	2015	2014	2013
<b>Assets</b>			
Investments at fair value	\$ 4,277,765	\$ 4,302,873	\$ 3,741,215
Invested securities lending collateral	50,613	41,986	190,616
Receivables	31,264	90,422	36,687
Cash	352	701	234
<b>Total Assets</b>	<b>4,359,994</b>	<b>4,435,982</b>	<b>3,968,752</b>
<b>Liabilities</b>			
Due to brokers	3,357	44,602	2,634
Securities lending collateral	50,613	41,986	190,616
Accrued investment and professional fees	878	931	552
Other liabilities	623	586	575
<b>Total Liabilities</b>	<b>55,471</b>	<b>88,105</b>	<b>194,377</b>
<b>Net position restricted for pensions</b>	<b>\$ 4,304,523</b>	<b>\$ 4,347,877</b>	<b>\$ 3,774,375</b>

*See accompanying independent auditor's report.*

# Houston Police Officers' Pension System

## Management's Discussion and Analysis Fiscal Year Ended June 30, 2015

The System's net assets decreased by approximately \$(43,354) thousand in fiscal year 2015 over 2014 during a year marked by volatility. In the first half of the year, markets gained and lost the same ground month after month based on weak international performance that at times was offset by domestic growth only to see that domestic growth dissipate due to a sharp decline in oil prices, wobbly equity markets and intensifying deflationary pressures. This volatility continued during the second half of the year with markets concerned about China and the rising risks of a Greek exit from the Eurozone, causing stocks to drop and ending the year with a further decline in expected corporate earnings. The System's net assets increased by approximately \$573,502 thousand in fiscal year 2014 over 2013 during a year that started with markets concerned that the Federal Reserve might begin to tighten monetary policy and with the prospect of a U.S. military strike in the Middle East. The markets rebounded, reacting to stronger corporate earnings, but increased volatility returned to the markets with the manifestation of geopolitical risk in the emerging markets, including bad news about the Chinese economy and the Ukraine situation. Stronger economic reports in the last quarter and continued earnings growth helped markets rebound, finishing the year hitting new records. The System experienced a positive investment return of 0.8% in 2015 as opposed to a positive return of 17.4% in 2014 and a positive return of 7.9% in 2013. These rates of return calculations were prepared using a time-weighted rate of return in accordance with The CFA Institute's Global Investment Performance Standards and, as such, cannot be recalculated from the information provided herein. Changes in receivables are primarily a result of the timing of investment transactions and of the accrual of the \$25,500 thousand contributions shortfall (see further discussion below).

A summary of the Statements of Changes in Fiduciary Net Position for the System is as follows (\$000's):

Years ended June 30:	2015	2014	2013
<b>Contributions:</b>			
City	\$ 113,665	\$ 103,372	\$ 93,392
Members	37,719	37,012	35,586
<b>Total contributions</b>	<b>151,384</b>	<b>140,384</b>	<b>128,978</b>
Net income from investing activities	35,249	649,022	281,724
Net income from securities lending activities	92	131	269
<b>Total additions</b>	<b>186,725</b>	<b>789,537</b>	<b>410,971</b>
<b>Deductions:</b>			
Benefits paid to members	225,656	211,690	199,255
Refunds to members	945	906	641
Professional and administrative expenses	3,478	3,439	3,668
<b>Total deductions</b>	<b>230,079</b>	<b>216,035</b>	<b>203,564</b>
Net increase/(decrease)	(43,354)	573,502	207,407
<b>Net position restricted for pensions</b>			
Beginning of period	4,347,877	3,774,375	3,566,968
End of period	\$ 4,304,523	\$ 4,347,877	\$ 3,774,375

*See accompanying independent auditor's report.*

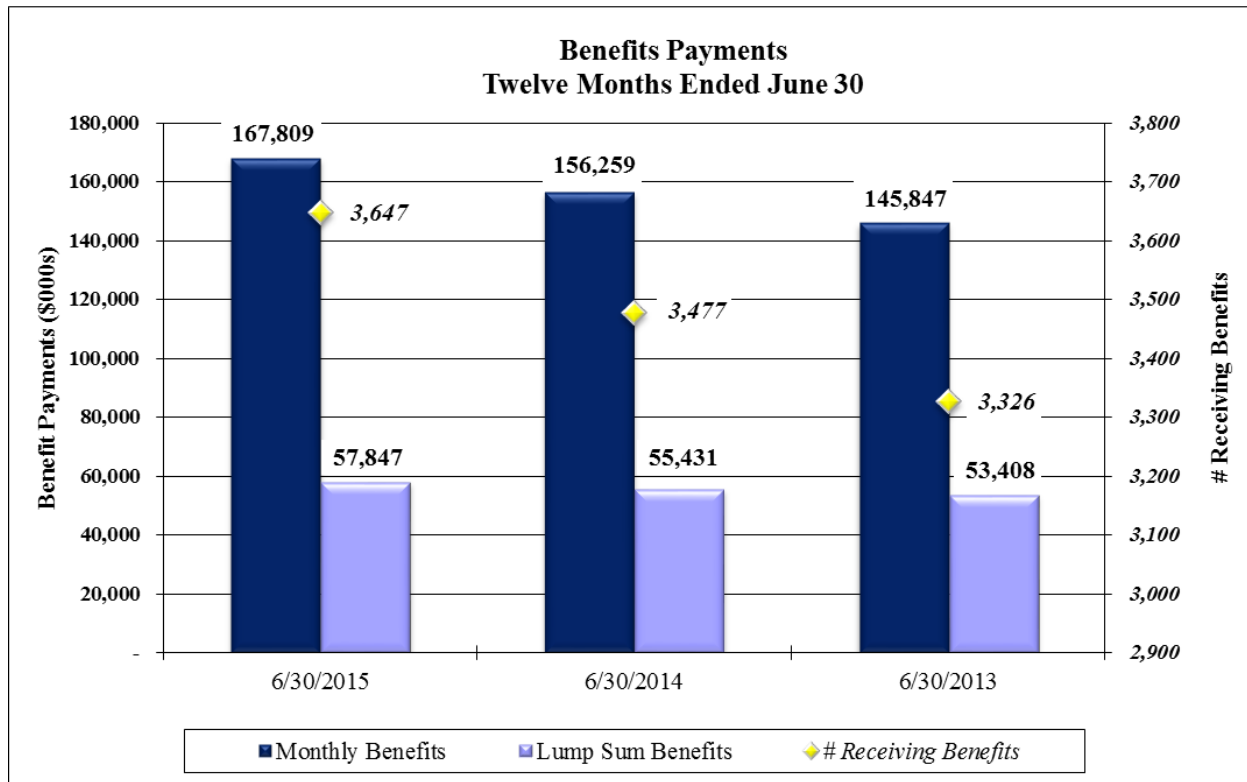
The June 30, 2011 Agreement with the City requires contribution payments for fiscal year 2015 equal to a \$113,000 thousand fixed payment. For fiscal year 2014, the City was contractually required to contribute a \$103,000

# Houston Police Officers' Pension System

## Management's Discussion and Analysis Fiscal Year Ended June 30, 2015

thousand fixed payment. For fiscal year 2013, the City was contractually required to contribute a \$93,000 thousand fixed payment, with any shortfall in the fixed payment not to exceed \$8,500 thousand. These contractual provisions account for the increase in City contributions for the years ended June 30, 2015; June 30, 2014; and June 30, 2013. As discussed in Note 2, the contributions were paid in their entirety from the City budget in 2015 and 2014. Only \$93,000 thousand was paid from the City budget in 2013 with the remaining \$8,500 thousand allowed shortfall as a secured contribution receivable.

“Benefits paid to members” consist of both lump sum payments and monthly payments of retirement, disability, and survivor benefits. The System’s benefit payment structure provides that members and survivors have the option to receive distributions from their lump sum accounts either on or after the date they begin receiving monthly benefit payments. Due to this ad hoc nature of lump sum distributions the summary results in the accompanying Statements of Changes in Fiduciary net position will not show any distinct trends in the “Benefits paid to members” category. The chart below compares the components of benefits paid to members for the years ended June 30, 2015, 2014, and 2013.



For each year, the annual cost of living adjustment (COLA) along with the increase in the number of benefit recipients accounts for the majority of the increase in benefit payments. Total benefits paid in 2015 increased from 2014 by approximately \$13,966 thousand or 6.6% compared to an increase of approximately \$12,435 thousand or 6.2% between 2013 and 2014. The increase in 2015 is due to an \$11,550 thousand increase in monthly benefits and a \$2,416 thousand increase in lump sum benefits compared to a \$10,412 thousand increase in monthly benefits and a \$2,023 thousand increase in lump sum benefits in 2014. Average monthly benefit payments were \$13,984 thousand and \$13,022 thousand per month for 2015 and 2014 respectively. The increase of \$963 thousand or 7.4% in 2015 was greater than the increase of \$868 thousand or 7.1% in 2014 as the number of members and survivors who are receiving benefits increased by 170 in 2015 and 151 in 2014.

# Houston Police Officers' Pension System

## Management's Discussion and Analysis Fiscal Year Ended June 30, 2015

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There was an increase of \$39 thousand in professional and administrative expenses during 2015 as compared to 2014. This increase is due mainly to an increase of \$69 thousand for improvements to the System's enterprise software system and the expenditure of \$26 thousand to replace old office equipment and a decrease of \$51 thousand for trustee election related expenses. The upgrade project for the System's enterprise software system will result in eventually allowing members to conduct most pension business through a secure web portal and provide streamlined communication between members and System staff. The System replaced two multifunction copier/printers, both which were over 10 years old, and five other printers with three multifunction copier/printers that will reduce expenses over their lifetime. In 2014, there was an election and run-off election to fill a vacated trustee position. In 2015, no trustee positions were contested, resulting in no expense for postage or conducting an election. The decrease of \$229 thousand in professional and administrative expenses during 2014 as compared to 2013 was mainly due to a decrease in legal expenses arising from a lawsuit the System brought against a former investment manager that was settled in 2013.

### **System Highlights**

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The System's funded ratio pursuant to its most recent actuarial valuation dated July 1, 2014 was 81% representing an unfunded actuarial accrued liability of \$1,021,056 thousand. The System's funded ratio as of July 1, 2013 was 81% representing an unfunded actuarial accrued liability of \$939,010 thousand. The System's Agreement with the City provides that once the Funded Ratio reaches 80%, this becomes the new floor and if it should ever decline below such 80% level, in the fiscal year next following such determination, the City shall pay such additional amounts to the System as shall be necessary to increase the Funded Ratio to 80%.

### **Contacting the System's Management**

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This financial report is designed to provide members and other users with a general overview of the System's finances and to show the System's accountability for the funding it receives. If you have questions about this report, you may contact the System's Executive Director at 602 Sawyer, Suite 300, Houston, TX 77007 or by phone at 713-869-8734.

**Houston Police Officers' Pension System**  
**Statements of Fiduciary Net Position (\$000's)**

<i>June 30,</i>	<b>2015</b>	<b>2014</b>
<b>Assets</b>		
<b>Investments, at fair value</b> (Note 3 and Note 4)		
Short term investments	\$ 915,270	\$ 831,028
Fixed income investments	225,728	383,346
Equity securities	817,127	997,732
Alternative investments	2,319,640	2,090,767
<b>Total Investments</b>	<b>4,277,765</b>	4,302,873
<b>Invested securities lending collateral</b> (Note 4)	<b>50,613</b>	41,986
<b>Receivables</b>		
City (Notes 2 and 5)	25,500	25,500
Members	1,169	1,039
Investments	2,873	2,181
Due from brokers	1,713	61,695
Other receivables	9	7
<b>Total Receivables</b>	<b>31,264</b>	90,422
<b>Cash</b>	<b>352</b>	701
<b>Total Assets</b>	<b>\$ 4,359,994</b>	\$ 4,435,982
<b>Liabilities</b>		
<b>Payables</b>		
Due to brokers	3,357	44,602
Securities lending collateral (Note 4)	50,613	41,986
Accrued investment and professional fees	878	931
Other liabilities	623	586
<b>Total Liabilities</b> (Note 8)	<b>55,471</b>	88,105
<b>Net position restricted for pensions</b>	<b>\$ 4,304,523</b>	\$ 4,347,877

*See accompanying independent auditor's report and notes to financial statements.*



**Houston Police Officers' Pension System**  
**Statements of Changes in Fiduciary Net Position (\$000's)**

<i>Years ended June 30,</i>	<b>2015</b>	<b>2014</b>
<b>Contributions</b> (Notes 2 and 5)		
City	\$ 113,665	\$ 103,372
Members	37,719	37,012
<b>Total contributions</b>	<b>151,384</b>	<b>140,384</b>
<b>Investment income</b>		
Net appreciation in fair value of investments	21,504	625,973
Interest:		
Short-term investments	993	848
Fixed income investments	15,163	24,440
<b>Total interest income</b>	<b>16,156</b>	<b>25,288</b>
Dividends	20,714	18,119
Other income	-	2,167
<b>Total investment income</b>	<b>58,374</b>	<b>671,547</b>
Less: investment expense	(23,125)	(22,525)
<b>Net income from investing activities</b>	<b>35,249</b>	<b>649,022</b>
<b>Securities lending activities</b> (Note 4)		
Securities lending income	123	175
Securities lending expense	(31)	(44)
<b>Net income from securities lending activities</b>	<b>92</b>	<b>131</b>
<b>Total additions</b>	<b>186,725</b>	<b>789,537</b>
<b>Deductions</b>		
Benefits paid to members	225,656	211,690
Refunds to members (Note 1)	945	906
Professional and administrative expenses	3,478	3,439
<b>Total deductions</b>	<b>230,079</b>	<b>216,035</b>
Net increase (decrease) in net position	(43,354)	573,502
<b>Net position restricted for pensions</b>		
Beginning of period	4,347,877	3,774,375
End of period	\$ 4,304,523	\$ 4,347,877

*See accompanying independent auditor's report and notes to financial statements.*

# Houston Police Officers' Pension System

## Notes to Financial Statements

### 1. Plan Description and Contribution Information

*General* – The Houston Police Officers' Pension System (the System) was created in 1947 by an act of the Fiftieth Legislature of the State of Texas, and is governed by Article 6243g-4, Vernon's Texas Civil Statutes (the Governing Statute) and contracts pursuant to Section 27 thereof. The System is a single employer contributory defined benefit pension plan covering police officers employed full time by the City of Houston (the City) that provides for service, disability and death benefits for eligible members and their beneficiaries. The System is a local governmental plan and, therefore, is not subject to the Employee Retirement Income Security Act of 1974 (ERISA). The System is a component unit of the City only to the extent the System receives contributions equal to an amount or percentage of pay of active members in accordance with the Governing Statute.

The System's Board of Trustees in accordance with the Governing Statute is responsible for the general administration, management, and operation of the pension system, including the direction of investment and oversight of the fund's assets. The System's Board of Trustees is composed of seven members as follows: (1) the administrative head of the City or the administrative head's authorized representative; (2) three employees of the police department having membership in the pension system, elected by the active, inactive, and retired members of the pension system; (3) two retired members who are receiving pensions from the system and are not officers or employees of the City, elected by the active, inactive, and retired members of the pension system; and (4) the treasurer of the City or the person discharging the duties of the City treasurer.

At June 30, the System's membership consisted of the following:

June 30,	2015	2014
Retirees and beneficiaries:		
Currently receiving benefits	3,647	3,477
Not yet receiving benefits	22	24
Active members:		
Fully vested	2,007	1,931
Nonvested:		
Hired or rehired before October 9, 2004	1,168	1,447
Hired or rehired after October 9, 2004	2,087	1,969
<b>Total members</b>	<b>8,931</b>	<b>8,848</b>

The following sections describe the benefit structure in effect at June 30, 2015 and 2014. On September 29, 2004, the System and the City entered into an agreement (the October 9, 2004 Agreement) that altered the benefit structure of the System. On June 30, 2011, the System and the City entered into an agreement (the June 30, 2011 Agreement) that altered the City payment schedule and extended the contract term which began on October 9, 2004, through June 30, 2023 and thereafter renews for one-year terms through June 30, 2040 unless either party terminates the agreement. The benefits described below include those for members hired or rehired on or before October 9, 2004 as well as benefits for members hired or rehired subsequent to October 9, 2004.

*Eligibility* – Members become eligible to receive a service pension upon retirement with 20 years of service. Members also have the option to select a Delayed Retirement, which allows for vesting after 10 years of service with a pension benefit payable at age 60. Members hired or rehired subsequent to October 9, 2004 are eligible to receive a service pension upon attaining age 55 and 10 years of service.

*Benefits* – Retirement benefits are equal to 2.75% of the member's pensionable pay for each of the member's first 20 years of service plus 2.00% of pensionable pay for each year in excess of 20 years with no maximum percentage. Members hired or rehired subsequent to October 9, 2004 accrue benefits equal to 2.25% of the member's pensionable pay for each of the member's first 20 years of service plus 2.00% of the member's pensionable pay for each year in excess of 20 years subject to a maximum of 80%. Retired members and surviving spouses are entitled to receive an additional \$150 per month in order to defray group medical insurance costs.

# Houston Police Officers' Pension System

## Notes to Financial Statements

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*Pensionable Pay* - Eligible members of the System will have their retirement or DROP benefit (see below) calculated on pensionable pay, which is referred to as Final Average Pay, and is defined as the average of all pay types received by a member over the three years prior to retirement or entrance into DROP exclusive of all categories of overtime.

*Deferred Retirement Option Plan* – The Deferred Retirement Option Plan (DROP) provides for an optional method of accruing pension benefits. Generally, members with at least 20 years of service are eligible to participate in the DROP. Members hired or rehired subsequent to October 9, 2004 are not eligible to participate in DROP or Back-DROP. Upon termination of employment participating members receive their pension benefit in the form of an annuity and a lump sum benefit. The annuity is the member's pension benefit at the time of enrollment in the DROP plus any subsequent cost of living adjustments. The lump sum benefit is the accumulated balance in the member's notional DROP account which is equal to an amount calculated as if the member's annuity, employee contributions and an interest component had been deposited in a separate account in the member's name during the member's participation in DROP. Prior to October 9, 2004, 100% of a member's contributions were credited to his or her notional DROP account. Subsequent to that date, an eligible member contributes 9.00% of pensionable pay with 8.75% of pensionable pay credited to his or her notional DROP account and the additional 0.25% credited to the System's general fund.

A Back-DROP benefit is also available for all eligible participants. The Back-DROP option allows a DROP member to recalculate his or her DROP notional account by selecting a different entrance date than that originally selected by the member upon entrance into DROP. The Back-DROP entry date cannot be prior to the later of October 21, 1995 or the date the member attained 20 years of credited pension service.

*Cost of Living Adjustments* – Pension benefits and the monthly DROP benefits are adjusted each year equal to 80% of the increase in the Consumer Price Index for all Urban Consumers for the preceding year subject to minimum and maximum increases of 2.4 % and 8.0%, respectively.

*Disability Benefits* – Duty connected disability benefits are equal to the greater of 55% of pensionable pay or the accrued service pension. Disabled members who qualify for a Catastrophic Disability, as defined, receive a disability benefit equal to 100% of pensionable pay. Members hired or rehired subsequent to October 9, 2004 are eligible for a duty connected disability benefit equal to the greater of 45% of the member's pensionable pay or the accrued service pension.

Members determined to be eligible for a non duty-connected disability benefit are entitled to a benefit of either 27.5% of pensionable pay, if the member has 10 or fewer credited years of service, or 2.75% per year for credited service in excess of 10 years. Members hired or rehired subsequent to October 9, 2004 are eligible for a non-duty connected disability benefit equal to the greater of 22.5% of the member's pensionable pay or 2.25% per year for credited service equal to or in excess of 10 years up to 20 years and 2.00% per year for credited service equal to or in excess of 20 years.

*Death Benefits* – Death benefits are available to a surviving spouse, dependent children or a dependent parent in the event of the death of a member either after disability or service retirement, or prior to retirement.

*Refunds of Member Contributions* – A member with less than 20 years of credited pension service may elect to obtain a refund of member contributions upon termination of service with the Houston Police Department (HPD). This refund does not include interest. Members with at least 10 but less than 20 years of credited pension service, who terminate service with the HPD, have the option of a Delayed Retirement benefit. Members hired or rehired subsequent to October 9, 2004 are eligible for a refund of contributions until they attain age 55 and 10 years of service.

*Delayed Retirement* – A member with at least 10 but less than 20 years of credited pension service at termination of employment with the HPD has the option of either a refund of member contributions, without interest, or a Delayed Retirement benefit. The Delayed benefit is payable at age 60 and is calculated at 2.75% of pensionable pay for each year of credited pension service. Members hired or rehired subsequent to October 9, 2004 with more than 10 years of service are eligible for a Delayed Retirement payable at age 55.

# Houston Police Officers' Pension System

## Notes to Financial Statements

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*Supplemental Monthly Benefit* (13<sup>th</sup> check) – In years in which certain investment performance and actuarial funding requirements are met, the System issues a supplemental monthly benefit payment to retired members and a supplemental credit to DROP participants' accounts in an amount equal to their normal monthly benefit. This benefit is not available for any year in which the System's funded ratio is less than 120%. Members hired or rehired subsequent to October 9, 2004 are not eligible for this benefit.

*Lump Sum Benefit* – Members retiring with a service or disability benefit receive a one-time \$5,000 lump sum benefit. Members hired or rehired subsequent to October 9, 2004 are not eligible for this benefit.

*Reciprocal Retirement Program* – Members who have not attained the necessary years of service for retirement are eligible to participate in the System's Reciprocal Retirement Program if they also have pension service with other City departments. This program allows members with the necessary cumulative years of service to combine their service credit with other City retirement systems and receive a proportionate retirement benefit from the System.

*Post Retirement Option Plan* – The Post Retirement Option Plan (PROP) allows retired members to have all or a portion of their monthly retirement and DROP lump sum credited to a notional account maintained by the System which accumulates interest and can be disbursed to the member under certain options as designated by the System. Surviving spouses can transfer a DROP or PROP balance to a PROP account of their own but are not eligible to credit all or a portion of their survivor benefit to a PROP account. Members hired or rehired subsequent to October 9, 2004 are not eligible for this benefit.

*Partial Lump Sum Option Plan* – The Partial Lump Sum Option Plan (PLOP) provides for an optional lump sum payment of a portion of a member's retirement benefit. A lump sum payment of not more than 20% of the actuarial value of the member's accrued pension at retirement shall be made available to persons who become active members of the System subsequent to October 9, 2004. The benefit shall be actuarially neutral. Thus, the value of the pension the member receives shall be reduced actuarially to reflect the lump sum payment.

## **2. Contributions and Reserves**

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Contributions – Members hired prior to October 9, 2004 are required to contribute 9.00% of pay and members hired or rehired subsequent to October 9, 2004 contribute 10.25% of pay. Contributions are made on a pre-tax basis pursuant to Governing Statutes.

In the October 9, 2004 Agreement, it was agreed that in lieu of contributions to the System made pursuant to actuarial valuations, the City will make cash payments to the System in accordance with a payment schedule as provided for in such Agreement. In the June 30, 2011 Agreement, it was agreed that for fiscal year 2015 the amount to be contributed was a \$113,000 thousand fixed payment. For fiscal year 2014, the amount to be contributed was a \$103,000 thousand fixed payment, and for fiscal year 2013 the amount to be contributed was a \$93,000 thousand fixed payment, with any shortfall in the fixed payment not to exceed \$8,500 thousand. For fiscal year 2016, it requires a \$123,000 thousand fixed payment.

To finance the allowed shortfalls, the City in the June 30, 2011 Agreement, gave the System an undivided interest (Property Interest) in real property owned by the City known as the Houston Police Department Headquarters located at 1200 Travis Street, Houston, Texas, and a parking garage located at 801 Polk Street, Houston, Texas (Real Property). The percentage of the Property Interest is the ratio of the unpaid shortfall debt (plus any unpaid interest) to the appraised value of the Real Property on June 21, 2014, plus an extra 10% to allow for differing valuations and changes in value during the period the Property Interest is held by the System. The City will make quarterly interest payments to the System based on the shortfall at a rate of 8.5% per annum, not compounded, until the shortfall is repaid. For the fiscal year 2015, the quarterly interest payments totaled \$542 thousand.

In accordance with the June 30, 2011 Agreement, the City on December 29, 2011, placed the Real Property on the market for sale and lease back, the proceeds of which sale will be allocated between the City and the System according to their respective Property Interests. Until any sale takes place, the City shall have, at its sole option and discretion, the right to purchase the System's Property Interest for the amount of the unpaid shortfall debt and the prorated amount of interest due as of the date of repurchase. If the Real Property has not been sold by July 1, 2015,

# Houston Police Officers' Pension System

## Notes to Financial Statements

the City shall buy back on that date the System's Property Interest for the amount of the unpaid shortfall debt plus any accrued interest. As of June 30, 2015, the Real Property remains unsold, and on July 1, 2015, the City paid the System \$25,500 thousand to buy back the System's Property Interest.

For all subsequent fiscal years, and until the funded ratio reaches 100%, City payments shall increase each fiscal year by \$10,000 thousand until said 100% funding is reached. Once the System reaches a 100% funded ratio, the City will pay the actuarially required rate, but not less than 16.00% of payroll. In addition, once the Funded Ratio reaches 80%, this becomes the new floor and if it should ever decline below such 80% level, in the fiscal year next following such determination, the City shall pay such additional amounts to the System as shall be necessary to increase the Funded Ratio to 80%. At the System's current asset level, a 5% decline in the funded ratio below the floor would require the City to pay approximately \$268,200 thousand.

City contributions in the Statements of Changes in Fiduciary Net Position may be greater than the contractually agreed amounts, as members are allowed to contribute accumulated sick and vacation pay to the System upon retirement and such contributions are classified as City contributions.

Pursuant to the terms of the June 30, 2011 Agreement and based on the July 1, 2014 actuarial valuation, the City contribution rates and the Actuarial Determined Contributions (ADC) are as shown below for the current year and the ten years ending June 30, 2024.

(\$000's)

Years Ended June 30,	Actuarial Determined Contribution (ADC)	Cash Payments Required by Agreements	Cash Payments as a Percentage of ADC	Actuarial Determined Contribution as a Percentage of Pay
2015	\$ 152,509	\$ 113,000	74.1	38.2
2016	154,841	123,000	79.4	38.3
2017	156,929	133,000	84.8	38.3
2018	158,240	143,000	90.4	38.0
2019	159,234	153,000	96.1	37.5
2020	159,544	163,000	102.2	36.9
2021	159,158	173,000	108.7	36.1
2022	157,847	183,000	115.9	35.0
2023	155,781	193,000	123.9	33.8
2024	152,913	203,000	132.8	32.5

### 3. Summary of Significant Accounting Policies

*Basis of Presentation* – As defined by generally accepted accounting principles established by the Governmental Accounting Standards Board (GASB), the accompanying financial statements include solely the accounts of the System, which include all programs, activities and functions relating to the accumulation and investment of the assets and related income necessary to provide the service, disability and death benefits required under the terms of the Governing Statutes and amendments thereto.

*Basis of Accounting* - Basis of accounting is the method by which revenues and expenses are recognized in the accounts and are reported in the financial statements. The accrual basis of accounting is used for the System. Under the accrual basis of accounting, revenues are recognized when they are earned and collection is reasonably assured, and expenses are recognized when the liability is incurred. Member contributions are recognized in the period in which the contributions are due. Employer contributions are recognized when due and the employer has made a legally required commitment to provide the contributions. Benefits and refunds are recognized when due and payable in accordance with the terms of the Governing Statute. Dividend income is recorded on the ex-dividend date. Income from other

# Houston Police Officers' Pension System

## Notes to Financial Statements

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investments is recorded when earned. Gains and losses on sales of securities are recognized on the trade date. The cost of investments sold is determined using the average cost method.

*Administrative Costs* – All administrative costs of the System are paid from the System's assets.

*Federal Income Tax* – A favorable determination that the System is qualified and exempt from Federal income taxes was received on September 24, 2014. The System's Board of Trustees believes that the System is designed and continues to operate in compliance with the applicable requirements of the Internal Revenue Code.

*Use of Estimates* – The preparation of the System's financial statements, in conformity with accounting principles generally accepted in the United States of America, requires management to make significant estimates and assumptions that affect the reported amounts and net plan assets at the date of the financial statements and the actuarial information included in the footnotes to the financial statements as of the benefit information date, the changes in the System's net assets during the reporting period and, when applicable, disclosures of the contingent assets and liabilities at the date of the financial statements. Actual results could differ from those estimates.

### 4. Investments

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*Investment Policy* – The System's policy in regard to the allocation of invested assets is established and may be amended by the System's Board of Trustees by a majority vote of its members. It is the policy of the System's Board of Trustees to pursue an investment strategy with a view toward the long term that maximizes the return on the System's assets with acceptable target levels of leverage, loss of capital, and volatility risk through the prudent diversification of the portfolio across a broad selection of distinct asset classes. The System's investment policy discourages the use of cash equivalents, except for liquidity purposes. The following was the Board's adopted asset allocation policy as of June 30, 2015:

<u>Asset Class</u>	<u>Target Allocation</u>
Domestic equity	24.00 %
International equity	20.00
Fixed income	-
Credit	7.50
Alternative investments:	
Private equity	15.00
Real estate	7.50
Risk parity	18.00
Opportunistic	5.00
Hedge funds	13.00
Cash	(10.00)
<u>Total</u>	<u>100.00 %</u>

*Investment Valuation* - Statutes of the State of Texas authorize the System to invest surplus funds in a manner provided by the Government Code, Title 8, Subtitle A, Subchapter C. These statutes stipulate that the governing body of the System is responsible for the management and administration of the funds of the System and shall determine the procedure it finds most efficient and beneficial for the management of the reserve fund of the System. The governing body may directly manage the investments of the System or may choose and contract for professional investment management services. Investments are reported at fair value in accordance with GASB 31, Accounting and Financial Reporting for Certain Investments and for External Investment Pools.

Under the Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC or Codification), ASC 820, Fair Value Measurements and Disclosures, defines fair value, establishes a framework for measuring fair value, expands disclosures about fair value measurements, and is consistent with valuations required by GASB 31. The System elected to include the ASC 820 disclosures.

# Houston Police Officers' Pension System

## Notes to Financial Statements

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ASC 820 establishes a hierarchal disclosure framework which prioritizes and ranks the level of market price observability used in measuring investments at fair value. Market price observability is impacted by a number of factors, including the type of investment and the specific characteristics of the investment. Fair value represents the amount at which an investment could be exchanged in a current transaction between willing parties, other than a forced or liquidation sale. Investments with readily available actively quoted prices or for which fair value can be measured from actively quoted prices generally will have a higher degree of market price observability and lesser degree of judgment used in measuring fair value.

Investments measured and reported at fair value are classified and disclosed in one of the following categories:

Level I – Investments traded in an active market with available quoted prices for identical assets as of the reporting date.

Level II – Investments not traded on an active market but for which observable market inputs are readily available or Level I securities where there is a contractual restriction as of the reporting date.

Level III – Investments not traded in an active market and for which no significant observable market inputs are available as of the reporting date.

In certain cases, the inputs used to measure fair value may fall into different levels of the fair value hierarchy. In such cases, an investment's level within the fair value hierarchy is based on the lowest level of input that is significant to the fair value measurement. The System's assessment of the significance of a particular input to the fair value measurement requires judgment and considers factors specific to the investment.

Short-term investments include funds held in short-term investment funds of the System's custodian and asset managers.

Fixed income investments include government securities such as Treasury securities, bank loans, US corporate bonds, foreign securities such as dollar denominated and non-dollar denominated issues of non-US governments and private corporations, plus units of commingled fixed income funds of both US and foreign securities.

Equity securities consist of individual shares of equity securities plus units of commingled stock funds of both US and foreign entities.

Alternative investments consist of investments in hedge funds, real estate, private equity and structured beta or "risk parity" funds. These investments are in various investment vehicles including limited partnerships and commingled funds.

The System's custodian bank provides security valuations for equity and fixed income securities utilizing vendor supplied pricing. Vendor supplied pricing data for equity securities is based upon the daily closing price from the primary exchange of each security while vendor supplied pricing data for fixed income securities is based upon a combination of market maker quotes, recent trade activity, and observed cash flows. To minimize the potential for inaccurate valuations, multiple price types are obtained from multiple providers and whenever possible prices are put through tolerance checks with exceptions researched and resolved on a same day basis as part of the pricing process. An integral part of the custodian's pricing process is to allow portfolio managers and interested third parties to challenge custodian provided prices which provides additional validation to the custodian's pricing. The evaluation process is handled by the custodian's internal pricing system, which automatically validates substantially all of the System's securities, leaving only exceptions and missing prices for human intervention. The rules this system applies are multi-dimensional and can be applied at a number of different levels, ranging from general to security specific in nature. Consistent with the System's valuation policy, the System's staff maintains and documents an understanding of the custodian's and underlying manager's valuation process and has implemented a program to review and evaluate the reconciliation process and the fair value estimates provided by the custodian and the investment manager. Based upon the procedures described above, and pursuant to ASC 820, equity securities that are valued based on quoted prices in active markets are generally classified as Level I while fixed income securities are generally considered to be Level II or Level III investments.

# Houston Police Officers' Pension System

## Notes to Financial Statements

The System's custodian values commingled funds at the net asset value provided by the commingled fund's custodian or administrator, as is applicable. The unit values of commingled funds are calculated by the custodian or administrator by dividing the commingled fund's net asset value on the calculation date by the number of units of the commingled fund that are outstanding on the calculation date. The commingled fund's net asset value is calculated by the commingled fund's custodian or administrator by using Level I, Level II or Level III prices, as appropriate, to value each security and/or other asset held by the commingled fund on the calculation date, pursuant to the commingled fund's valuation policy. In short, the net asset value of the commingled fund is calculated based on a compilation of primarily observable market information. The number of units of a commingled fund that are outstanding on the calculation date is derived from observable purchase and redemption activity in the commingled fund. Consistent with the System's valuation policy, the System's staff maintains and documents an understanding of the underlying fund's valuation process and has implemented a program to review and evaluate the fair value estimates provided by the commingled fund. Based upon the procedures described above and pursuant to ASC 820, the unit value for these commingled funds is considered to be a Level II price unless such commingled fund is traded in an active market with available quoted prices, in which case it is considered to be a Level I price.

The System's custodian values the System's investment in limited partnerships at the dollar value provided by the general partners. The fair value of securities held by limited partnerships has been estimated by the general partners in the absence of readily ascertainable fair values. The general partners utilize valuation methods which rely on significant assumptions and inputs of the portfolio company's most recent financial information such as EBITDA and debt and the equity structure of the portfolio company. Valuations may be derived by reference to observable valuation measures for comparable companies and may be adjusted for differences between the investment and the referenced comparables. General partners also utilize relevant information such as discounted cash flow analysis, pending recent transactions and potential initial public offering values in the determination of fair value. Consistent with the System's valuation policy, the System's staff maintains and documents an understanding of the general partner's valuation process and has implemented a program to review and evaluate the fair value estimates provided by each partnership. Based upon the procedures described above and pursuant to ASC 820, these limited partnerships are generally considered to be Level III assets.

The System has established a framework to consistently measure the fair value of the System's assets and liabilities in accordance with applicable accounting, legal, and regulatory guidance. This framework has been provided by establishing valuation policy and procedures that will provide reasonable assurance that assets and liabilities are carried at fair value as described above.

The following table summarizes the valuation of the System's investments in accordance with the above mentioned ASC 820 fair value hierarchy levels as of June 30, 2015 and 2014. There have been no changes in the methodologies used at June 30, 2015 and 2014.

(\$000's)	6/30/2015		6/30/2014	
	Fair Value	Percent of Net Assets	Fair Value	Percent of Net Assets
Level I	\$ 276,347	6.5 %	\$ 293,428	6.8 %
Level II	3,451,773	80.7	3,545,695	82.4
Level III	549,645	12.8	463,750	10.8
	<b>\$ 4,277,765</b>	<b>100.0 %</b>	<b>\$ 4,302,873</b>	<b>100.0 %</b>



# Houston Police Officers' Pension System

## Notes to Financial Statements

The following table presents a reconciliation of the beginning and ending balances of the fair value measurements using significant unobservable inputs (Level III).

	<b>Fair Value (\$000's)</b>	
<b>Balance, June 30, 2014</b>	\$	463,750
Purchases		169,701
Sales		(121,549)
Realized Gain/Loss		53,596
Unrealized Gain/Loss Change		(15,853)
Transfers in/(out) of Level III		-
<b>Balance, June 30, 2015</b>	<b>\$</b>	<b>549,645</b>

*Concentrations* – As of June 30, 2015, the System did not have any single investment in any one organization which represented greater than 5% of plan net assets.

*Rate of return* – For the year ended June 30, 2015, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 0.8%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

*Investment Risk* – The System's investments have been categorized to address deposit and investment risks related to custodial credit risk, credit risk, concentration of credit risk, interest rate risk, and foreign currency risk.

- *Custodial Credit Risk for Deposits and Investments* – Custodial credit risk for investments is the risk that in the event of a failure of the counterparty, the System will not be able to recover the value of the investment or collateral in possession of the counterparty. The System does not have an investment policy regarding custodial credit risk. The System considers only demand deposits as cash. As of June 30, 2015 and June 30, 2014, the System had a balance of \$352 thousand and \$701 thousand, respectively, on deposit at a financial institution. The Federal Depository Insurance Corporation (FDIC) covered cash on deposit up to \$250 thousand at this financial institution. Therefore, as of June 30, 2015, \$102 thousand of the System's bank balance of \$352 thousand was exposed to custodial credit risk. At June 30, 2015, the System did not have any other investments with other financial institutions subject to custodial credit risk.
- *Credit Risk* – Credit risk is the risk that the counterparty will not fulfill its obligations. As of June 30, 2015, the System's fixed income assets that are not U.S. government guaranteed represented 99.9% of the System's fixed income plus short term investments portfolio. The tables below and on the following page summarize the System's fixed income portfolio exposure levels and credit qualities.

### Average Credit Quality and Exposure Levels of Non-U.S. Government Guaranteed Securities June 30, 2015

Fixed Income Security Type	Market Value (\$000's)	Percent of Total	Weighted Average Credit Quality
Corporate Bonds	\$ 134,708	11.8	BB
Mutual Bond Funds	91,019	8.0	B
Short Term Investment Funds	915,270	80.2	Not Rated
<b>Total</b>	<b>\$ 1,140,997</b>	<b>100.0</b>	

# Houston Police Officers' Pension System

## Notes to Financial Statements

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### Ratings Dispersion Detail

June 30, 2015

(\$000's)

Credit Rating Level	Corporate Bonds	Mutual Bond Funds	Short Term
			Investment Funds
BBB	\$ 1,077	\$ -	\$ -
BB	60,682	-	-
B	49,933	91,019	-
SD	122	-	-
NR	22,894	-	915,270
<b>Total</b>	<b>\$ 134,708</b>	<b>\$ 91,019</b>	<b>\$ 915,270</b>

The System's investment policy allows investment managers full discretion in adopting investment strategies to deal with these risks. Unless otherwise provided in the individual investment manager agreement, the average quality rating of each individual fixed income portfolio on a weighted value basis shall be A-rated or higher, and no issue should have a rating below investment grade (Baa or higher). Certain managers, such as high yield managers, may be exempted from these requirements as provided for in their contracts.

Credit risk for derivative instruments held by the System results from counterparty risk, which is essentially that the counterparty will be unable to fulfill its obligations, which are then assumed by the System. Information regarding the System's credit risk related to derivatives is found under the derivatives disclosures.

Policies regarding credit risk pertaining to credit risk associated with the System's securities lending program are found under the securities lending disclosures.

- *Concentration of Credit Risk* – Concentration of credit risk is the risk of loss attributable to the magnitude of the System's investment in a single issue. The System's investment policy for each specific portfolio limits investments in any one single domestic equity issue to 15% of each portfolio at market value and for any one single international equity issue to 5% of the System's investments. For fixed income investments, the System's policy limits, by each specific portfolio, investment in any one single fixed income security to 10% of each portfolio at market value. As of June 30, 2015, the System did not have any single investment in any one organization which represented greater than 5% of plan net assets.
- *Interest Rate Risk* – Interest rate risk is the risk that changes in interest rates will adversely affect the fair values of the System's financial instruments. This risk is managed within the portfolio using the modified duration methodology. It is widely used in the management of fixed income portfolios and estimates the sensitivity of a bond's price to interest rate changes. The System does not have an investment policy specifically regarding interest rate risk. Investment managers have full discretion in adopting investment strategies to deal with these risks, and all of the System's fixed income portfolios are managed in accordance with guidelines that are specific as to the degree of interest rate risk taken. The reporting of modified duration found in the tables on the following page quantifies the interest rate risk of the System's fixed income investments. Interest rate risks associated with derivative instruments are found in the derivatives disclosures of these notes.

# Houston Police Officers' Pension System

## Notes to Financial Statements

### Modified Duration by Security Type June 30, 2015

Security Type	Market Value (\$000's)	Percent of Total	Weighted Average Modified Duration (years)
Corporate Bonds	\$ 134,708	11.8	5.3
Mutual Bond Funds	91,019	8.0	6.6
Short Term Investment Funds	915,270	80.2	0.1
<b>Total</b>	<b>\$ 1,140,997</b>	<b>100.0 %</b>	<b>1.2</b>

### Modified Duration Analysis by Security Type June 30, 2015

	Market Value (\$000's)	Average Modified Duration	Contribution to Modified Duration
<b>Corporate Bonds</b>			
Less than 1 year	\$ 11	0.0	0.0
1 to 10 years maturities	133,649	5.2	5.2
10 to 20 years maturities	1,048	7.6	0.1
<b>Total</b>	<b>\$ 134,708</b>		<b>5.3</b>
<b>Mutual Bond Funds</b>			
1 to 10 years maturities	\$ 91,020	6.6	6.6
<b>Short Term Investment Funds</b>			
Less than 1 year	\$ 856,235	0.1	0.1
1 to 10 years maturities	59,035	0.1	0.0
<b>Total</b>	<b>\$ 915,270</b>		<b>0.1</b>

# Houston Police Officers' Pension System

## Notes to Financial Statements

- Foreign Currency Risk** – Foreign currency risk is the risk that changes in exchange rates will adversely impact the fair value of an investment. The books and records of the System are maintained in US dollars. Foreign currencies and non-US dollar denominated investments are translated into US dollars at the bid prices of such currencies against US dollars at each balance sheet date. Realized and unrealized gains and losses on investments which result from changes in foreign currency exchange rates have been included in the net appreciation in fair value of investments. Net realized foreign currency gains and losses resulting from changes in exchange rates include foreign currency gains and losses between trade date and settlement date of investment securities transactions, foreign currency transactions and the difference between the amounts of interest and dividends recorded on the books of the System and the amount actually received. International and global managers have the permission to use currency forward and futures contracts to hedge currency against the U.S. dollar. Currency forwards and futures used for the purpose of hedging currency shall be subject to the following guidelines: 1) net forward and futures sales of any currency may not exceed total market value of the assets denominated in that currency. This limitation does not apply to global fixed income managers and currency overlay managers if provided for in their contracts, 2) foreign currency exchange contracts with a maturity exceeding 12 months are not permitted, 3) currency options may be entered into in lieu of or in conjunction with forwards sales of currencies with the same limitations as currency forwards and futures. Cross hedging, the selling of one foreign currency for another foreign currency, which may or may not be the base currency of the portfolio, is permitted. The System's exposure to foreign currency risk in U.S. dollars as of June 30, 2015, is shown in the table below.

### Foreign Currency Exposure by Asset Class (\$000's) June 30, 2015

Currency	Short Term Investments	Equities	Alternative Investments	Total
Japanese yen	\$ (75,586)	\$ 156,684	\$ -	\$ 81,098
British pound sterling	(69,962)	138,642	-	68,680
Euro	(156,881)	205,209	19,301	67,629
Swiss franc	-	63,058	-	63,058
Australian dollar	-	47,085	8,412	55,497
Chinese yuan renminbi	-	39,191	-	39,191
South Korean won	-	26,437	-	26,437
New Taiwan dollar	-	24,609	-	24,609
Canadian dollar	2,075	21,078	-	23,153
Hong Kong dollar	-	22,228	-	22,228
Swedish krona	-	20,052	-	20,052
Indian rupee	-	15,020	-	15,020
South African rand	-	14,595	-	14,595
Brazilian real	-	14,542	-	14,542
Danish krone	-	11,366	-	11,366
Singapore dollar	-	9,798	-	9,798
Mexican peso	-	9,191	-	9,191
Russian ruble	-	6,143	-	6,143
Malaysian ringgit	-	6,128	-	6,128
Other (less than \$5 million)	-	31,560	-	31,560
<b>Total</b>	<b>\$ (300,354)</b>	<b>\$ 882,616</b>	<b>\$ 27,713</b>	<b>\$ 609,975</b>

**Securities Lending Program** – The System's Board of Trustees' policies permit the System to lend securities (domestic and international equities and fixed income) to securities firms on a temporary basis through its custodian bank. The System receives fees for all loans and retains the right to all interest and dividend payments while the securities are on loan. Cash, letters of credit or various government securities having market values equal to or exceeding 102% and 105% of the value of the loaned securities for domestic and international securities, respectively, collateralize all security loan agreements. Whenever the market value of the securities on loan changes, the borrower must adjust the

# Houston Police Officers' Pension System

## Notes to Financial Statements

collateral accordingly. The System's bank pools all collateral received from securities lending transactions and invests any cash collateral. The System holds an undivided share of the collateral provided by the borrowers of the securities. At June 30, 2015 the weighted-average maturity of the collateral pool was 50 days. The relationship between the maturities of the collateral pool and the System's loans has not been determined. Cash collateral invested in the custodian bank collateral pool at June 30, 2015 and 2014, was \$50,613 thousand and \$41,986 thousand, respectively. The System also had non-cash collateral at June 30, 2015 and 2014, of \$4,392 thousand and \$123 thousand respectively, consisting of treasury securities and letters of credit. The System cannot sell or pledge the collateral unless the borrower fails to return the securities borrowed.

The market value of securities on loan at June 30, 2015 and 2014 was \$53,846 thousand and \$41,230 thousand, respectively. At June 30, 2015, the System had no credit risk exposure to borrowers because the amounts the System owes the borrowers, \$55,005 thousand, exceeds the amounts the borrowers owe the System, \$53,846 thousand.

*Derivatives* – The System's investment managers may invest in derivatives if permitted by the guidelines established by the System's Board of Trustees. The System's staff monitors guidelines and compliance. From time to time the System's investment managers will invest in equity, fixed income and short term futures contracts along with foreign currency forward contracts. No derivatives are purchased with borrowed funds.

The fair value balance of posted margin and collateral and notional amounts of derivative instruments outstanding at June 30, 2015, classified by type, and the changes in fair value of such derivative instruments for the year then ended is shown in the table below. The Change in Fair Value figures are reported as a component of net appreciation (depreciation) in the Statement of Changes in Fiduciary Net Position.

(\$000's)	Year ending	As of June 30, 2015		
	June 30, 2015	Posted Margin	Collateral Held at	Notional
	Changes in Fair Value		Custodian Bank	Value
Equity Futures	\$ (28,310)	\$ 64,661	\$ 766,175	\$ 1,326,925
Currency Futures	28,132	7,294	26,862	304,305
Options	7,641	-	19,897	151,610

Futures are used to obtain market exposure and to take advantage of mis-pricing opportunities. When a position is taken in a futures contract, a margin is posted and the contract is subject to daily mark-to-market adjustments. For options, no margin is posted. Instead, options are purchased at a premium, which is either forfeited or recouped, depending on the gain or loss on the contract. Foreign currency contracts are used to hedge against the currency risk in the System's investments in foreign equity and fixed income securities. To liquidate the contract prior to expiration an offsetting position in the same contract must be taken. These derivatives are used to enhance yields and provide incremental income.

These derivative instruments are subject to the following risks:

- *Custodial Credit Risk* – Custodial credit risk for derivative instruments is the risk that, in the event of the failure of the counterparty to a transaction, the System will not be able to recover the value of the derivative instruments or collateral securities that are in the possession of an outside party. Consistent with the System's investment policy, the System's derivative instruments were held by the counterparty that was acting as the System's agent.
- *Credit Risk* – Credit risk is the risk that the counterparty will not fulfill its obligations. The System does not have an investment policy specifically regarding credit risk for derivative instruments. The System's investment policy allows investment managers full discretion in adopting investment strategies to deal with this risk. The System's investment managers seek to control this risk through counterparty credit evaluations and approvals, counterparty credit limits, and exposure monitoring procedures.

# Houston Police Officers' Pension System

## Notes to Financial Statements

- *Interest Rate Risk* – Interest rate risk is the risk that changes in interest rates will adversely affect the fair values of the System's derivative instruments.
- *Foreign Currency Risk* – Foreign currency risk is the risk that changes in exchange rates will adversely impact the fair value of derivative instruments. The System's exposure to foreign currency risk derives from its positions in foreign currency denominated international equity and fixed income investments as outlined in the following schedule. The System has a currency hedging program in place that hedges fifty percent of the exposure to the Euro, Pound, and Yen exposure in these investment programs. This hedging program is disclosed elsewhere in this footnote. The System's derivative instruments exposure to foreign currency risk in U.S. dollars as of June 30, 2015, is shown in the table below.

Currency	(\$000's)		
	Equity Derivatives	Currency Derivatives	Total
Swiss franc	\$ 42,779	\$ -	\$ 42,779
Australian dollar	31,943	-	31,943
Japanese yen	106,297	(75,586)	30,711
British pound sterling	94,057	(69,976)	24,081
Euro	139,198	(156,881)	(17,683)
Hong Kong dollar	15,080	-	15,080
Swedish krona	13,604	-	13,604
Danish krone	7,711	-	7,711
Singapore dollar	6,647	-	6,647
Other (less than \$5 million)	12,098	1,840	13,938
<b>Total</b>	<b>\$ 469,414</b>	<b>\$ (300,603)</b>	<b>168,811</b>

*Alternative Investments* – As of June 30, 2015 and 2014, the System was invested in various partnerships, separate accounts and commingled funds across various types of alternative investments as detailed in the table below.

Investment Type	Fair Value (\$000's)	
	June 30, 2015	June 30, 2014
<i>Private Equity</i>		
Leveraged Buyouts	\$ 185,294	\$ 155,087
Special Situations	82,867	80,446
Energy	77,522	59,166
Venture Capital	52,573	60,052
Private Equity Secondaries	25,457	4,864
<i>Other Alternatives</i>		
Risk Parity	901,023	833,634
Hedge Funds	591,975	560,541
Credit	166,415	193,955
Real Estate	125,932	104,134
Opportunistic Funds	110,582	38,888
<b>Total</b>	<b>\$ 2,319,640</b>	<b>\$ 2,090,767</b>

Supplemental Information on investment and professional expenses included in Schedule II on page 30 herein does not include the investment management fees and performance fees embedded in the structure of the private equity and other limited partnership investments listed above. Rather, these fees are a component of the Net appreciation in fair value of investments in the accompanying Statement of Changes in Fiduciary Net Position.

# Houston Police Officers' Pension System

## Notes to Financial Statements

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### 5. Contributions Receivable

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The June 30, 2011 Agreement with the City provided that for fiscal year 2014 the amount to be contributed would be a \$93,000 thousand fixed payment, with any shortfall in the fixed payment not to exceed \$8,500 thousand, and for fiscal year 2013, an \$83,000 thousand fixed payment, with any shortfall in the fixed payment not to exceed \$17,000 thousand. Therefore, the total contribution receivable is \$25,500 thousand, which is secured by an undivided interest (Property Interest) in real property owned by the City known as the Houston Police Department Headquarters located at 1200 Travis Street, Houston, Texas, and a parking garage located at 801 Polk Street, Houston, Texas (Real Property) and is further discussed in footnote 2. In July 2015, the City of Houston paid the contribution receivable amounting to \$25,500 thousand.

### 6. Deferred Retirement Option Program (DROP) Balances

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The Deferred Retirement Option Plan (DROP) is an optional method of accruing pension benefits under the System's benefit structure. Members with at least 20 years of service and who were hired prior to October 9, 2004, are eligible to participate in the DROP. The lump sum benefit is the accumulated balance in the member's notional DROP account which is equal to an amount calculated as if the member's annuity, employee contributions and an interest component had been deposited in a separate account in the member's name during the member's participation in DROP. Prior to October 9, 2004, 100% of a member's contributions were credited to his or her notional DROP account. Subsequent to that date, an eligible member contributes 9.00% of pensionable pay with 8.75% of pensionable pay credited to his or her notional DROP account and the additional 0.25% credited to the System's general fund. The following table shows the change in DROP accounts during the year ended June 30, 2015.

#### DROP Activity

Year ended June 30, 2015

	DRO Accounts (\$000's)		DRO Participants
Balance at June 30, 2014	\$ 887,912	Participants at June 30, 2014	1,921
Accumulations	44,580	Entrants	256
Distributions	(11,054)	Withdrawals	(186)
Balance at June 30, 2015	<u>\$ 921,438</u>	Participants at June 30, 2015	<u>1,991</u>

The Post Retirement Option Plan (PROP) allows retired members to have all or a portion of their monthly retirement and DROP lump sum credited to a notional account maintained by the System which accumulates interest and can be disbursed to the member under certain options as designated by the System. Surviving spouses can transfer a DROP or PROP balance to a PROP account of their own but are not eligible to credit all or a portion of their survivor benefit to a PROP account. Members hired or rehired subsequent to October 9, 2004 are not eligible for this benefit. The table on the following page shows the change in PROP accounts during the year ended June 30, 2015.

# Houston Police Officers' Pension System

## Notes to Financial Statements

### PROP Activity

Year ended June 30, 2015

	PROP Accounts (\$000's)		PROP Participants
Balance at June 30, 2014	\$ 619,367	Participants at June 30, 2014	1,257
Accumulations	169,517	Entrants	176
Distributions	(46,575)	Withdrawals	(11)
Balance at June 30, 2015	<u>\$ 742,309</u>	Participants at June 30, 2015	<u>1,422</u>

### 7. Net Pension Liability

The net pension liability is measured as the total pension liability, less the amount of the pension plan's fiduciary net position. The components of the net pension liability at June 30, 2015 were as follows (\$000's):

Total pension liability	\$ 6,992,784
Plan fiduciary net position	<u>4,304,523</u>
System's net pension liability	<u>\$ 2,688,261</u>
 Plan fiduciary net position as a percentage of the total pension liability	 61.56%

*Actuarial assumptions* – The total pension liability was determined by an actuarial valuation as of July 1, 2015, using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.75%
Salary Increases	0.00% to 12.00% , plus a 2.00% inflation and productivity component
Investment Rate of Return	8.00%, net of pension plan investment expense, including inflation

The actuarial assumptions used in the July 1, 2015 valuation were last updated in the July 1, 2014 valuation pursuant to an experience study of the five-year period ending June 30, 2013.

The long-term expected rate of return on the System's investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2015 (see the discussion of the pension plan's investment policy) are summarized in the table on the following page:



# Houston Police Officers' Pension System

## Notes to Financial Statements

<u>Asset Class</u>	<u>Long-Term Expected Real Rate of Return</u>
Domestic equity	5.10 %
International equity	5.70
Fixed income	-
Credit	3.30
Alternative investments:	
Private equity	6.60
Real estate	5.40
Risk parity	4.80
Hedge funds	5.50
Cash	(0.75)

*Discount rate* – A single discount rate of 7.08% was used to measure the total pension liability. This single discount rate was based on the expected rate of return on pension plan investments of 8.00% and the current municipal bond rate of 3.80%. The projection of cash flows used to determine this single discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates specified in the 2011 Meet & Confer Agreement. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members until the 48<sup>th</sup> year. Therefore, a single discount rate of 7.08% was applied to all periods of projected benefit payments to determine the total pension liability. For the June 30, 2014 measurement date, the single discount rate used was 8.00%. The decrease in the single discount rate resulted in an increase in the total pension liability of approximately \$665 million.

*Sensitivity of the net pension liability to changes in the discount rate* – The following table presents the net pension liability, calculated using the discount rate of 7.08 percent, as well as what the net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.08 percent) or 1-percentage-point higher (8.08 percent) than the current rate:

(\$000's)	<u>1% Decrease (6.08%)</u>	<u>Current Discount Rate (7.08%)</u>	<u>1% Increase (8.08%)</u>
Net pension liability	\$ 3,576,952	\$ 2,688,261	\$ 1,971,192

### 8. Litigation

In May 2015, HPOPS, along with hundreds of other entities, was named as a defendant in a bankruptcy adversary proceeding, Official Committee of Unsecured Creditors of Motors Liquidation Co. f/k/a/ General Motors Corp. v. JPMorgan Chase Bank, N.A., 09-00504 (Bankr. S.D.N.Y. 2009). In this litigation, the Unsecured Creditors' Committee for the General Motors (GM) bankruptcy is attempting to claw back funds used to pay off a piece of GM term debt that HPOPS held in 2009. HPOPS plans to move to dismiss the complaint and may also bring a cross-claim against JP Morgan Chase Bank N.A.—the entity that actually received the debt payoff funds at issue—to substitute for HPOPS as the proper party or to reimburse HPOPS's legal fees. Both filings would be due November 16, 2015. A total of \$587,248 is potentially at stake, but if a clawback were ordered, JP Morgan admits that it would be obligated to reimburse HPOPS for all but \$15,948 of that amount.

### 9. Commitments and Contingencies

As described in Note 1, there are 3,256 non-vested active members of the System who are entitled to refunds of their accumulated contributions, without interest, upon termination of employment with the City prior to being eligible for pension benefits. At June 30, 2015 and 2014, aggregate contributions from these members of the System were approximately

# Houston Police Officers' Pension System

## Notes to Financial Statements

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\$157,937 thousand and \$163,348 thousand, respectively. The portion of these contributions that might be refunded to members who terminate prior to pension eligibility has not been determined.

At June 30, 2015 and 2014, the total accumulated lump sum benefit due to DROP members was approximately \$921,438 thousand and \$887,912 thousand, respectively.

At June 30, 2015 and 2014, the total accumulated lump sum benefit due to PROP participants was \$742,309 thousand and \$619,367 thousand, respectively.

The System has outstanding investment commitments to various limited partnerships totaling \$788,938 thousand and \$597,730 thousand, as of June 30, 2015 and 2014, respectively.

The System has a lease for the office it occupies through October 31, 2020. The monthly base rental and outstanding lease commitment is as detailed in the following chart (\$000's).

<u>Period</u>	<u>Monthly Base Rent</u>	<u>Fiscal Year</u>	<u>Total Rent</u>
July 2014 - April 2015	\$ 17	2016	\$ 240
May 2015 - April 2016	20	2017	246
May 2016 - April 2017	20	2018	253
May 2017 - April 2018	21	2019	259
May 2018 - April 2019	22	2020	265
May 2019 - April 2020	22	Beyond 2020	90
May 2010 - October 2020	23		<u>\$ 1,353</u>

**Houston Police Officers' Pension System**  
**Required Supplementary Information (Unaudited)**

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**Schedule of Changes in the Net Pension Liability and Related Ratios**  
**For Last Two Fiscal Years**  
**(\$000's)**

Fiscal year ending June 30,	2015	2014
<b>Total Pension Liability</b>		
Service Cost	\$ 56,062	\$ 52,844
Interest	473,065	466,649
Benefit Changes	-	-
Difference between Expected and Actual Experience	26,706	(41,034)
Assumption Changes	664,974	162,849
Benefit Payments	(225,656)	(211,690)
Refunds	(945)	(906)
<b>Net Change in Total Pension Liability</b>	<b>994,206</b>	<b>428,712</b>
<b>Total Pension Liability - Beginning</b>	<b>5,998,578</b>	<b>5,569,866</b>
<b>Total Pension Liability - Ending (a)</b>	<b>\$6,992,784</b>	<b>\$5,998,578</b>
<b>Plan Fiduciary Net Position</b>		
Employer Contributions	\$ 113,665	\$ 103,372
Employee Contributions	37,719	37,012
Pension Plan Net Investment Income	35,341	649,153
Benefit Payments	(225,656)	(211,690)
Refunds	(945)	(906)
Pension Plan Administrative Expense	(3,478)	(3,439)
Other	-	-
<b>Net Change in Plan Fiduciary Net Position</b>	<b>(43,354)</b>	<b>573,502</b>
<b>Plan Fiduciary Net Position - Beginning</b>	<b>4,347,877</b>	<b>3,774,375</b>
<b>Plan Fiduciary Net Position - Ending (b)</b>	<b>\$4,304,523</b>	<b>\$4,347,877</b>
<b>Net Pension Liability - Ending (a) - (b)</b>	<b>\$2,688,261</b>	<b>\$1,650,701</b>
<b>Plan Fiduciary Net Position as a Percentage of</b>		
<b>Total Pension Liability</b>	61.56%	72.48%
<b>Covered Employee Payroll</b>	\$ 395,360	\$ 388,756
<b>Net Pension Liability as a Percentage of Covered</b>		
<b>Employee Payroll</b>	679.95%	424.61%

**Houston Police Officers' Pension System**  
**Required Supplementary Information (Unaudited)**

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**Schedule of Employer Contributions**  
**(\$000's)**

<b>Measurement Year Ending June 30,</b>	<b>Actuarially Determined Contribution</b>	<b>Actual Contribution</b>	<b>Contribution Deficiency (Excess)</b>	<b>Covered Payroll</b>	<b>Actual Contribution as a % of Covered Payroll</b>
2014	\$ 139,991	\$ 103,372	\$ 36,619	\$ 388,756	26.59 %
2015	150,949	113,665	37,284	395,360	28.75

**Notes to Schedule**

Valuation Date: July 1, 2015

Actuarially determined contribution rates are determined in accordance with the Meet and Confer Agreement of 2011. Under the terms of the 2011 Meet and Confer Agreement, the FY 2017 contribution is already set at \$133 million preceded by a City contribution of \$123 million for FY 2016. For more information regarding the actuarially determined Contribution, refer to the July 1, 2015 HPOPS Valuation Report.

**Methods and Assumptions Used to Determine Contribution Rates:**

Actuarial Cost Method	Projected Unit Credit
Amortization Method	Level Percentage of Payroll, Open
Remaining Amortization Period	30 years
Asset Valuation Method	The actuarial value of assets is equal to the market value of assets less a five-year phase in of the excess (shortfall) between expected investment return and actual income.
Inflation	2.75%
Salary Increases	0.00% to 12.00% , plus a 2.00% inflation and productivity component
Investment Rate of Return	8.00%
Retirement Age	Experience-based table of rates based on age and years of service. The assumption was last updated in the July 1, 2014 valuation pursuant to an experience study of the five-year period ending June 30, 2013.
Mortality	<p>Healthy retirees - The Gender-distinct RP2000 Combined Healthy Mortality Tables with Blue Collar Adjustment are used with male rates multiplied by 109% and female rates multiplied by 103%. The rates are projected on a fully generational basis by scale BB to account for future mortality improvements.</p> <p>Disabled males and females – The gender-distinct RP2000 Disabled Retiree Mortality Tables are used without adjustment. The rates are projected on a fully generational basis by scale BB to account for future mortality improvements.</p> <p>Active members - The Gender-distinct RP2000 Combined Healthy Mortality Tables with Blue Collar Adjustment are used with male rates multiplied by 54% and female rates multiplied by 51%. The rates are projected on a fully generational basis by scale BB to account for future mortality improvements. An additive factor of .0003 is applied to all active mortality rates.</p>

Houston Police Officers' Pension System  
Required Supplementary Information (Unaudited)

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**Schedule of Investment Returns**

<u>Fiscal Year Ended June 30,</u>	<u>Annual Money-weighted Rate of Return, net of Investment Expense</u>
2014	17.4%
2015	0.8%

# Houston Police Officers' Pension System

## Schedule I - Investment, Professional and Administrative Expenses (\$000's)

<i>Year ended June 30,</i>	2015	2014
<b>Investment services:</b>		
Custodial services	\$ 223	\$ 225
Money management services	21,394	20,844
Consulting services	1,000	1,000
Department Operating Expense	508	456
<b>Total investment services</b>	<b>23,125</b>	<b>22,525</b>
<b>Professional services:</b>		
Actuarial services	98	171
Auditing services	104	95
Election audit services	5	35
Legal services	61	99
Lobbyist services	376	374
<b>Total professional services</b>	<b>644</b>	<b>774</b>
<b>Administrative expenses:</b>		
Information technology	390	191
Education	34	36
Fiduciary insurance	88	83
Office rent	187	185
Other office costs	2,135	2,170
<b>Total administrative expenses</b>	<b>2,834</b>	<b>2,665</b>
	<b>\$ 26,603</b>	<b>\$ 25,964</b>

*See accompanying independent auditor's report.*

# Houston Police Officers' Pension System

## Schedule II - Summary of Investment and Professional Services (\$000's)

<i>Twelve Months Ended June 30, 2015</i>	Official System Position	Expense	Nature of Services
Franklin Park Associates, LLC	Consultant	\$ 400	Consulting
Mercer Investment Consulting, Inc.	Consultant	600	Consulting
The Northern Trust Company	Custodian	223	Custodian
AQR Capital Management LLC	Money Manager	3,340	Money Management
Ashmore Investment Management Limited	Money Manager	655	Money Management
BlackRock	Money Manager	538	Money Management
Blackstone Alternative Solutions LLC	Money Manager	85	Money Management
Brevan Howard Capital Management LP	Money Manager	752	Money Management
Bridgewater Associates, Inc.	Money Manager	12,247	Money Management
Dimensional Fund Advisors	Money Manager	1,105 *	Money Management
First Quadrant LP	Money Manager	267	Money Management
The Northern Trust Company	Money Manager	565	Money Management
PanAgora Asset Management, Inc.	Money Manager	1,291	Money Management
Parametric	Money Manager	150	Money Management
Shenkman Capital Management, Inc.	Money Manager	399	Money Management
Gabriel Roeder Smith & Co.	Actuary	98	Actuarial
BDO USA, LLP	Auditors	104	Auditing
Gibbs & Bruns, LLP	Attorneys	15	Legal Service
Strasburger & Price, LLP	Attorneys	19	Legal Service
HillCo Partners, LLC	Attorneys	157	Lobbyists
Locke Lord LLP	Attorneys	235	Lobbyists
Bickley Prescott & Co.	Consultant	5	Election Auditing
Other	Other	11	Other
<b>Total investment and professional services</b>		<b>\$ 23,261</b>	

*See accompanying independent auditor's report.*

\* The System invests in a mutual fund managed by Dimensional Fund Advisors. This figure represents estimated annual fees incurred by the System based upon the System's average monthly balance.

SECTION THREE

**INVESTMENT SECTION**

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### **Responsibilities of the Board of Trustees**

The primary fiduciary fiscal responsibility of the Board of Trustees is to insure that the System's assets are responsibly managed in accordance with the actuarial needs of the System, and also with sound, generally accepted financial investment procedures. The determination of the appropriate asset mix is based on capital market assumptions that incorporate historical returns, volatility and correlation of various asset classes as well as the consideration of current and forward-looking market conditions.

The Standard of Investment for the System in making investments is to exercise the judgment and care in the circumstances then prevailing which persons of prudence, discretion and intelligence exercise in the management of their own affairs. The Trustees' responsibility is to invest the System's funds solely in the interest of the membership and their beneficiaries, and for the exclusive purpose of providing benefits to the membership and their beneficiaries and defraying reasonable expenses of administering the System.

### **Investment Philosophy and Objectives**

The Board of Trustees believes that the System's assets should be managed in a way that reflects the uniqueness of the System and that the System's assets should be diversified over a spectrum of investment strategies. Specifically, the Board recognizes and adheres to the following philosophical positions:

- Diversification should be based upon the prudent allocation of risk rather than solely the allocation of capital.
- Asset classes are priced to have long-term expected returns above cash and their return above cash is proportional to their risk (they have similar Sharpe Ratios). Since asset classes have similar expected Sharpe Ratios, they can be made competitive through the prudent use of leverage or leverage-like techniques.
- Over the long term, the risk of owning equities has been, and should continue to be, rewarded with a somewhat greater return than that available from fixed income investments.
- Fixed income investments provide the System with an investment strategy that contributes diversification, liquidity and a predictable stream of income; and that dampens volatility in investment returns.
- Diversification into alternative investments provides the System with an opportunity to enhance returns and to achieve broader diversification of the System's assets.

### **Investment Policy**

The Board of the Houston Police Officers' Pension System (HPOPS) has established an Investment Policy with the following broad guidelines and objectives.

- Establish overall financial objectives and set investment policy
- Select appropriate investment options
- Select qualified investment manager(s) and consultants
- Select a qualified custodian
- Communicate on a structured and ongoing basis with those responsible for investment results; and
- Monitor performance to assure that objectives are being met and that policy and guidelines are being followed.

This Investment Policy represents the formal document for HPOPS and is to be communicated to the appointed Investment Manager(s) and is their principal source for developing an appropriate investment strategy and, in addition, serves as the basis for these Managers' and the System's future performance evaluation.

**Investment Strategy and Performance**

The System’s asset allocation strategy is reviewed periodically by the Board and is changed in anticipation of or in response to changing market conditions. The current asset allocation targets and the actual asset allocation of the System at June 30, 2015 are as follows:

	<b>Target % of Fund</b>	<b>Current Actual % of Fund</b>	<b>Dollars Invested (000's)</b>
Domestic Equity	24.0%	28.6%	\$ 931,050
International Equity	20.0%	20.8%	762,083
<b>Total Equity</b>	<b>44.0%</b>	<b>49.4%</b>	<b>1,693,133</b>
Credit	7.5%	9.2%	393,895
<b>Total Fixed Income</b>	<b>7.5%</b>	<b>9.2%</b>	<b>393,895</b>
Private Equity	12.5%	8.1%	346,215
Risk Parity	18.0%	21.1%	901,023
Hedge Funds	18.0%	16.4%	702,709
Real Estate	7.5%	2.9%	125,932
Energy	2.5%	1.8%	77,528
<b>Total Alternatives</b>	<b>58.5%</b>	<b>50.3%</b>	<b>2,153,407</b>
<b>Total Cash</b>	<b>-10.0%</b>	<b>-8.9%</b>	<b>37,946</b>
<b>Total Fund</b>	<b>100.0%</b>	<b>100.0%</b>	<b>\$ 4,278,382</b>

Investing during fiscal year 2015 was challenging as the macro environment seemed to present one obstacle after another. Troubles were exposed early in the year when earnings growth expectations across all sectors declined; shortly thereafter volatility became elevated as oil prices plunged and deflationary pressures intensified. Towards the end of the fiscal year, concerns mounted regarding the true health of the U.S. economy as weak economic reports were announced. In addition, the Greek financial crisis took center stage yet again, as negotiations between the IMF and Greece appeared to stall; leading to speculation that Greece would pull out of the Euro causing the currency to break down. Despite the turbulent environment, the System successfully preserved capital and returned 0.8%.

The System under-performed its benchmark rate of return by 2.3% due primarily to its allocation to risk parity and the MLP classification within the U.S. equity portfolio. Risk parity seeks to balance risk exposures among fixed income, public equity, and inflation linked assets. The diversification of the strategy, specifically its exposures to non-US equity and commodities, caused it to significantly underperform its benchmark; a blend of 60% S&P 500 and 40% BC US Aggregate.

The underperformance of the System’s U.S. equity portfolio was primarily the result of classifying the Northern Trust MLP strategy within U.S. equity. MLP’s are significant owners of energy infrastructure, controlling substantial assets involved in the transportation, processing, refining, and storage of energy resources. The U.S. equity classification decision was made based on the underlying holdings being traded on public exchanges and having a low correlation to the asset class. MLP’s were severely impacted by the steep decline in oil prices during the year, resulting in significant negative performance flowing through to the U.S. equity asset class.

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**INVESTMENT SECTION**

A notable change to the System's asset allocation, when compared to our historic allocation, is the elimination of fixed income. Given where we are in the economic cycle, the impending rise in interest rates, and the low current income levels offered by the asset class the decision was made to terminate the allocation in favor of strategies that have a better risk / reward profile.

*Domestic Equity*

The System's domestic equity allocation was increased by 2.5% during the year, to 24.0%. The U.S equity portfolio generated a 3.2% return, underperforming its benchmark, the Russell 3000, by 4.1%. This underperformance of the System's domestic equity portfolio versus the benchmark was primarily due to the System's allocation to the MLP fund as discussed above. The balance of the U.S. equity portfolio is comprised of three passive strategies, one of which also contributed negatively to performance. The Panagora quality stock portfolio invests in a subset of stocks that meet at least the following criteria: strong balance sheets, earnings stability, good management, and dividend paying. This value strategy was out of favor during the year as the momentum trade was in play.

Assets under management, annualized rates of return and fees paid to domestic equity managers for the fiscal year ending June 30, 2015 are as follows (dollars in 000's):

<b>Manager</b>	<b>Style</b>	<b>Assets</b>	<b>% Returns</b>	<b>Fees</b>
BlackRock	S&P 500 Index	124,462	6.8%	47
Parametric <sup>1</sup>	Russell 3000 Futures	506,704	5.8%	395
Parametric	Defensive Equity	22,893	20.2%	349
Northern Trust MLP	Energy Infrastructure	88,134	-19.6%	189
Panagora	Quality Stock Portfolio	188,858	5.4%	150
		<u>\$ 931,050</u>		<u>\$ 1,130</u>

1 - See footnote 4 to the financial statements for disclosure of leverage in this strategy

*International Equity*

The System's non-U.S. equity allocation was increased by 2.5% during the year, to 20.0%. The international equity portfolio returned negative 2.5%, outperforming the negative 5.3% return of the MSCI ACWI ex U.S. benchmark for the fiscal year. This outperformance was due to the System's hedging policy whereby fifty percent of foreign currency exposure to the Euro, Yen and Pound was hedged back to the U.S. dollar.

Assets under management, annualized rates of return and fees paid to international equity managers for the fiscal year ending June 30, 2015 are on the following page (dollars in 000's):

INVESTMENT SECTION

Manager	Style	Assets	% Returns	Fees
BlackRock	Emerging Markets Passive	57,394	-5.3%	289
BlackRock	World Equity ex-US	307,854	-5.4%	201
Parametric	World Equity ex-US Futures <sup>1</sup>	310,071	-7.0%	197
Parametric	Currency Hedge	35,679	15.9%	132
Causeway Capital	EAFE <sup>2</sup>	14	N/A	-
DFA	Emerging Markets Equity	51,071	-9.1%	266
		<u>\$ 762,083</u>		<u>\$ 1,085</u>

<sup>1</sup> See footnote 4 to the financial statements for disclosure of leverage in this strategy.

<sup>2</sup> Terminated 10/31/2012

*Credit*

HPOPS has a dedicated allocation to credit strategies designed to take advantage of perceived opportunities in the credit markets. Credit investments are segregated by HPOPS as a separate investment category with a target allocation of 7.5% of the System's total assets.

Beginning in October 2011, the System reduced its allocation to high yield to 2.5% in favor of opportunistic strategies. The environment appeared more favorable for investing in opportunistic credit due to, among other factors, continued dislocations in the credit markets and required credit derivative unwinds resulting from regulatory capital changes. Assets under management, annualized rates of return and fees paid to credit-oriented managers for the fiscal year ending June 30, 2015 are listed below (dollars in 000's):

Manager	Style	Assets	% Returns	Fees
MacKay Shields	High Yield <sup>1</sup>	\$ 411	N/A	\$ -
Shenkman Capital Mgmt	High Yield	136,050	2.6%	399
Northern Trust	High Yield	91,019	-0.8%	474
DW Partners	Opportunistic Credit	41,476	0.1%	837
Silver Point	Opportunistic Credit	43,984	-2.3%	885
Och Ziff	Opportunistic Credit	45,110	9.6%	1,889
Anchorage	Opportunistic Credit	35,845	16.5%	2,115
		<u>\$ 393,895</u>		<u>\$ 6,599</u>

<sup>1</sup> Terminated May 30, 2014

*Alternative Investments*

The System's alternative investment program consists of allocations to private equity, energy assets, real estate, hedge funds, and risk parity strategies. The private equity program is now managed by Franklin Park, although the portfolio still contains funds recommended by Abbott Capital who managed the asset class from 1997 – 2008, as well as funds recommended by Mercer (formerly Hammond Associates) who served as the interim manager between Abbott Capital and Franklin Park. Although the private equity program is a relatively mature strategy, it remains underfunded by approximately 4.4% due primarily to the recently increased allocation to the asset class and also to distributions exceeding drawdowns over the last few years. The System had investments in, or commitments to, 96 individual private equity and energy partnerships with 59 general partners as of June 30, 2015. The current allocation within this strategy is approximately 44% leveraged buyouts, 20% special situation funds, 12% venture capital, 6% secondary and 18% in energy funds. This program required \$135.5 million of additional funding during fiscal 2015 while at the same time generating distributions of \$91.7 million for the same period. The private equity program generated a 14.3% return for the 2015 fiscal year versus a return of 10.6% for its benchmark, the Cambridge Private Equity Index. The System's energy allocation returned negative 10.9%, outperforming its benchmark, the S&P 500 Energy Index by 11.3%. This extreme outperformance of the energy portfolio is due to the valuation methodology of the illiquid funds, which did not immediately reflect the severe pricing declines in the sector.

As of June 30, 2015 the market value of real estate assets comprised 2.9% of the System's total assets. The 4.6% shortfall between the target allocation and the current allocation is due to the increased target allocation during the previous year, in addition to the timing and relatively immature nature of the portfolio. The System began committing to the asset class during 2007, immediately prior to the great recession. During the recession, capital was not called due to extreme market uncertainty, essentially delaying investment into the asset class for approximately two years. The System's real estate portfolio returned 19.4% during fiscal year 2015, outperforming its benchmark the NCREIF Property Index by 6.7%.

During fiscal year 2014 an additional 5.0% allocation was made to hedge funds, specifically for long / short equity. The implementation of the long / short hedge fund allocation has been delayed; therefore the additional 5% allocation has been suspended pending the successful completion of the System's due diligence process. The target hedge fund allocation is now 18.0% and the System had \$702.7 million invested as of June 30, 2015. Hedge funds generated fiscal year performance of approximately 5.1%, outperforming the HFR Fund of Funds Composite Index by 1.1%. The hedge fund portfolio benefitted most from its global macro managers who were able to successfully express their views through directional or relative value trades.

The System increased its allocation to risk parity from 15.0% to 18.0% during the year. This increased allocation and a portion of the original 15.0% allocation, has been invested in risk parity funds that are a variation of the traditional risk parity strategy. Traditional risk parity strategies are designed to address the issue of traditional over-allocation of risk to equities and to take full advantage of the powers of diversification. Capital is invested in order to gain exposures to equity, nominal rates, inflation and credit / currency holdings. The newer risk parity funds have an alpha component, that is designed to provide additional return above the return earned from the diversified beta components and provide downside protection. The risk parity funds underperformed their benchmark, a 60% S&P 500 / 40% BC US Aggregate mix, by returning negative 4.8% versus 5.3%, respectively.

Assets under management, annualized rates of return and fees paid to alternative investments managers for the fiscal year ending June 30, 2015 are shown on the following page (dollars in 000's):

INVESTMENT SECTION

Manager	Style	Assets	% Returns	Base Fee
Bridgewater	Risk Parity <sup>1</sup>	\$ 382,177	-2.0%	\$ 694
AQR	Risk Parity <sup>2</sup>	303,247	-0.3%	3,157
First Quadrant	Risk Parity	215,599	-10.8%	565
Bridgewater	Hedge Funds <sup>3</sup>	263,481	8.7%	11,553
Mercer	Hedge Funds	439,228	3.2%	600
Mercer	Real Estate <sup>4</sup>	125,932	19.4%	-
Franklin Park	Private Equity <sup>5</sup>	346,215	14.3%	400
Franklin Park	Energy <sup>5</sup>	77,528	19.8%	-
		<u>\$ 2,153,407</u>		<u>\$ 16,969</u>

<sup>1</sup> Includes the All Weather and Optimal Portfolio funds.

<sup>2</sup> Include the Multi Strategy Fund VIII and the Multi Strategy Fund XI.

<sup>3</sup> Includes the Pure Alpha and Pure Alpha Major Markets funds.

<sup>4</sup> Fees consist of the Mercer \$600 thousand annual fee.

<sup>5</sup> Fees consist of the \$400 thousand annual fee.

Cash

The System has a cash securitization program which was initiated in order to more closely track our strategic asset allocation through the securitization of excess cash. During September 2008, the System switched to a “government only” STIF fund at its custodian bank, thereby avoiding many of the liquidity issues experienced by many STIF funds during the credit crisis.

Manager	Style	Assets (000s)	% Returns	Base Fee (000s)
Parametric Clifton	Cash Securitization	\$ 37,946	-8.0%	\$ 32
		<u>\$ 37,946</u>		<u>\$ 32</u>

Securities Lending

The System’s master custodian, Northern Trust, operates the Securities Lending program on behalf of HPOPS. Securities are loaned on a short-term basis to brokers in exchange for (generally) cash collateral. Northern Trust then invests this collateral and the investment income is divided between HPOPS and Northern Trust in accordance with agreed-upon percentages.

This program generates incremental income for HPOPS but is subject to certain risks. These risks include (1) the possibility that the borrower cannot return the securities and (2) that the investments in which Northern invests the collateral lose money. This first risk is controlled by strict guidelines on which borrowers will be approved to participate in the program and daily adjustment of the collateral for changes in the market value of the securities that are out on loan. The second risk is controlled by strict quality and duration guidelines on the securities that the collateral can be invested in. In June 2008 the System switched to a “government only” collateral pool thus avoiding exposure to the liquidity issues experienced by many securities lending collateral pools during the credit crisis.

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**INVESTMENT SECTION**

Vendors other than Northern Trust could be used for this program which could generate additional income but this is not likely without what has been determined to be an unacceptable increase in risk. Northern's participation in the Securities Lending program also allows for a reduction in custody fees.

Following is a chart of securities lending activity for the most recent three fiscal years (dollars in 000's).

	<b>2015</b>	<b>2014</b>	<b>2013</b>
<b>Avg Securities on Loan</b>	\$ 42,928	\$ 76,375	\$ 182,586
<b>Avg Eligible Securities</b>	\$ 284,593	\$ 373,065	\$ 698,177
<b>% on Loan</b>	15.1%	20.5%	26.2%
<b>HPOPS Net Earnings</b>	\$ 92	\$ 131	\$ 269
<b>Duration of Collateral Pool (days)</b>	40	44	43

**Report Preparation**

This report was prepared by the Investment Department of the Houston Police Officers' Pension System.

**Rates of Return by Year (%)**  
**Years Ended June 30th**

Year	System Total	Composite Benchmark	Domestic Equity	Russell 3000	Int'l Equity	MSCI		Citigroup HY	Alternative Investments
						ACWI ex U.S.	Credit		
2011	21.1	20.2	33.3	32.4	29.1	29.7	13.3	15.3	20.1
2012	3.0	3.3	2.8	3.8	-14.2	-14.6	8.6	7.6	8.0
2013	7.9	12.1	21.5	21.5	11.9	13.6	13.4	9.2	4.1
2014	17.4	18.7	24.9	25.2	20.5	21.8	13.5	11.3	18.5
2015	0.8	3.1	3.2	7.3	-2.5	-5.3	2.4	-0.9	1.9

**Compound Annualized Rates of Return by Year (%)**  
**Periods Ended June 30, 2015**

Year	System Total	Composite Benchmark	Domestic Equity	Russell 3000	Int'l Equity	MSCI		Citigroup HY	Alternative Investments
						ACWI ex U.S.	High Yield		
2	8.8	9.7	13.5	15.9	8.4	7.4	8.0	5.0	9.8
3	8.5	10.2	16.1	17.7	9.5	9.4	9.7	6.4	8.0
5	9.7	10.0	16.5	17.5	7.8	7.8	10.3	8.4	10.3
10	6.9	6.6	7.1	8.2	4.8	5.5	8.6	7.5	7.9

These calculations were prepared using a time-weighted rate of return in accordance with The CFA Institute's Global Investment Performance Standards. The System's total rates of return are net of fees. All other rates of return are presented gross of fees. Though these standards do not apply to plan sponsors per se, we have used them herein for purposes of presenting investment rates of return. The Composite Benchmark returns are calculated as if the System's current asset allocation had been in place for all time periods.



**Schedule of Ten Largest Domestic Equity Holdings**

*As of June 30, 2015*

<b>Shares</b>	<b>Description</b>	<b>Market Value (\$000's)</b>	<b>% of Total Domestic Equity</b>
219,836	Microsoft Corp.	\$ 9,706	1.0%
112,375	Exxon Mobil Corp.	9,350	1.0%
74,528	Johnson & Johnson	7,263	0.8%
268,054	General Electric Co.	7,122	0.8%
125,680	Wells Fargo & Co.	7,068	0.8%
71,946	Procter & Gamble	5,629	0.6%
49,871	Chevron Corp.	4,811	0.5%
42,001	Walt Disney Co.	4,794	0.5%
105,439	Coca Cola Co.	4,136	0.4%
7,604	Google Inc.	4,106	0.4%

A complete list of all individual holdings is available upon request.

**Schedule of Brokerage Commissions Paid**

**Domestic Equity Trading - Total Commissions Paid**

*For the year ended June 30, 2015*

<b>Brokers</b>	<b>Shares</b>	<b>Commissions</b>	<b>Principle</b>	<b>Commissions Per Share</b>
Merrill Lynch	56,823	\$ 1,512	\$ 29,750,739	\$ 0.027
Goldman Sachs	1,542,242	1,146	5,662,901	0.001
ITG Inc.	430,548	1,130	4,650,355	0.003
J.P. Morgan	71,866	605	30,860,549	0.008
Instinet	35,479	221	948,573	0.006

SECTION FOUR  
**ACTUARIAL SECTION**

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**HOUSTON POLICE OFFICERS' PENSION SYSTEM**  
**ACTUARIAL VALUATION REPORT**  
**FOR THE YEAR BEGINNING JULY 1, 2014**

October 29, 2014

Board of Trustees  
 Houston Police Officers' Pension System  
 602 Sawyer  
 Suite 300  
 Houston, TX 77007

**Subject: Actuarial Valuation Report as of July 1, 2014**

Dear Members of the Board:

We are pleased to present our Report of the actuarial valuation of the Houston Police Officers' Pension System ("HPOPS" or "the System") for the plan year commencing July 1, 2014. This Report describes the current actuarial condition of HPOPS, determines the calculated employer contribution rate (the actuarially required rate), and analyzes changes in this contribution rate from the prior year. Valuations are prepared annually, as of July 1<sup>st</sup>, the first day of the HPOPS' plan year.

**Financing objectives and funding policy**

Under the HPOPS statute, the employer contribution rate is determined actuarially, based on the Board's funding policy and HPOPS' governing law. The contribution rate determined by a given actuarial valuation and implemented by the Board becomes effective twelve months after the valuation date, i.e., the rates determined by this July 1, 2014 actuarial valuation will be used by the Board when determining the employer contribution rate for the year beginning July 1, 2015 and ending June 30, 2016.

Under the 2011 Meet & Confer Agreement between the Board and the City of Houston, a funding schedule was implemented resulting in a minimum \$83 million employer contribution for the fiscal year ending June 30, 2012, increasing by \$10 million each year thereafter until HPOPS' funded ratio reaches 100%. However, for FY2012, the City of Houston was allowed to contribute \$17 million less than required and for FY2013, the City was allowed to contribute \$8.5 million less than required bringing the total contribution receivable to \$25.5 million which is to be financed at an annual interest rate of 8.5% and made up for in FY2015, according to the terms of the Meet & Confer Agreement. In addition, a fixed payment of \$113 million is to be made by the City for its fiscal year ending June 30, 2015. In addition, once the System reaches an 80% funded status (the ratio of the actuarial value of assets to the actuarial accrued liability), the City will make additional payments in the fiscal year following a determination that the System has fallen below this 80% threshold. Finally, once the System reaches the actuarially determined rate, the City will pay the actuarially determined rate, but not less than 16.0% of payroll.

Given the above schedule, the actual employer contribution amount for the fiscal year ending June 30, 2016 will not be set by this actuarial valuation as of July 1, 2014. Therefore, the actuarially calculated contribution rate determined by this valuation will not be contributed by the City of Houston. Based upon projected active member payroll of approximately \$400 million for FY2015, the City's calculated contribution amount should be about \$153 million. Instead, the City will only contribute \$113 million for FY2015 under the terms of the above funding schedule, as detailed in the 2011 Meet & Confer Agreement.

The contribution rate and liabilities are computed using the Projected Unit Credit (PUC) actuarial cost method. The employer contribution rate is the sum of two pieces: the employer normal cost rate and the amortization rate. The normal cost rate is determined as a percentage of active member payroll, with the employer normal cost being the difference between the total normal cost and the weighted member contribution rate. The amortization rate is determined as a level percentage of active member payroll. It is the amount required to amortize the unfunded actuarial accrued liability (UAAL) over an open period (30 years as of July 1, 2014). The amortization period is set by statute, and was modified under the Meet and Confer Agreement.

### **Progress toward realization of financing objectives**

The funded ratio (the ratio of the actuarial value of assets to the actuarial accrued liability) is a standard measure of a plan's funded status. In the absence of benefit improvements, it should increase over time, until it reaches 100%. The funded ratio as of July 1, 2014 is 81.0%. The funded ratio measured on the market value of assets is roughly the same at 81.1% as of July 1, 2014. Based on the current scheduled funding policy as set forth in the 2011 Meet and Confer Agreement, the System is projected to be 100% funded in approximately 23 years, or in year 2037. However, this amortization schedule is based upon proportionately larger contributions in future years, again, according to the current Meet and Confer Agreement. Using the FY2015 City contribution level amount only, would calculate to a single equivalent amortization period that would not be a determinable number.

The calculated employer (City of Houston) contribution rate for FY 2016 is 38.18%. This rate is greater than the 36.01% rate calculated in the July 1, 2013 actuarial valuation report. This is primarily due to the changes in assumptions associated with the experience investigation study conducted in conjunction with this valuation, but it also stems from the calculated contribution rate not being consistently contributed to the System by the City of Houston. These losses were partially offset by liability gains driven primarily by salary increases being less than assumed, fewer retirements than expected, and the annual cost of living adjustment (COLA) being less than assumed. Please see Table 6 under Section III of our Report for a detailed analysis of the change in the calculated employer contribution rate from the prior year to this year.

The contribution rate is determined using an actuarial value of assets rather than market value. The actuarial value of assets recognizes 20% of the difference (typically referred to as "five year smoothing") between the market value of assets and the expected actuarial value of assets, based

upon the assumed valuation rate of return of 8.00% per annum. There are currently \$4.9 million in asset gains being deferred that will be recognized in the future and provide a small buffer against adverse experience. As can be seen in Table 7 of Section III, in the absence of any future gains or losses the employer contribution rate is expected to increase next year but then begin a steady downward trend to under 30% in approximately 2024.

### **Benefit provisions**

The benefit provisions reflected in this valuation are those which were in effect on July 1, 2014. There were no changes in the benefit provisions since the prior valuation. The benefit provisions are summarized in Appendix B of our Report.

### **Assumptions and methods**

Actuarial assumptions and methods are set by the Board of Trustees, based upon recommendations made by the plan's actuary. The assumptions used in this valuation were adopted by the Board based on the recommendations from GRS during the Experience Investigation Study review following the July 1, 2013 actuarial valuation and were first used in the current valuation. Among the changes since the prior valuation are the investment return, inflation rate, assumed COLA and DROP credits, and most demographic assumptions. These are detailed on page 7 of this Report.

The results of the actuarial valuation are dependent upon the actuarial assumptions used. Actual results can and almost certainly will differ, as actual experience deviates from the assumptions. Even seemingly minor changes in the assumptions can materially change the liabilities, calculated contribution rates and funding periods. The actuarial calculations presented in our Report are intended to provide information for rational decision making.

The actuarial assumptions and methods used in this Report all comply with the parameters for financial disclosure that appear in Governmental Accounting Standards Board (GASB) Statement Number 67.

All assumptions and methods are described in Appendix A of our Report.

### **Data**

Member data for retired, active and inactive members was supplied as of July 1, 2014 by the HPOPS staff. We did not audit this data, but we did apply a number of tests to the data, and we concluded that it was reasonable and consistent with the prior year's data. GRS is not responsible for the accuracy or completeness of the information provided to us.

Asset and all financial information as of July 1, 2014 were supplied to us by the HPOPS staff, as well.

## Plan Experience

As part of each valuation, we examine the System's experience relative to the assumptions. The aggregate results of these analyses are disclosed in Tables 5 & 6 under Section III of our Report.

## Actuarial Certification

All of the tables contained in this actuarial valuation report and in the actuarial section of the HPOPS Comprehensive Annual Financial Report (CAFR) were prepared by Gabriel, Roeder, Smith & Company. Historical information for years prior to 2008 was prepared by the prior actuarial firm and was not subjected to our actuarial review. We certify that the information presented herein is accurate and fairly portrays the actuarial position of HPOPS as of July 1, 2014.

All of our work conforms with generally accepted actuarial principles and practices, and to the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, our calculations also comply with the requirements of State law and the Statements of the Governmental Accounting Standards Board. The undersigned are independent actuaries and consultants. All of the undersigned are Enrolled Actuaries, Members of the American Academy of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries. Finally, all of the undersigned are experienced in performing valuations for large public retirement systems.

Respectfully submitted,  
**Gabriel, Roeder, Smith & Company**



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## Executive Summary

Item	July 1, 2014	July 1, 2013
Membership (millions)		
• Number of:		
- Active members	5,343	5,364
- Retirees and beneficiaries	3,475	3,323
- Inactive members	<u>28</u>	<u>26</u>
- Total	8,846	8,713
• Annualized Payroll supplied by HPOPS	\$ 388,756	\$ 378,702
Calculated Contribution rates		
• Employer	38.18%	36.01%
• Member <sup>1</sup>	9.37%	9.33%
Assets (\$000s)		
• Market value	\$ 4,347,877	\$ 3,774,375
• Actuarial value	4,342,936	4,070,951
• Estimation of return on market value	17.3%	7.9%
• Estimation of return on actuarial value	8.5%	6.6%
• Employer contribution	\$ 103,372	\$ 93,392
• Member contribution	\$ 37,012	\$ 35,586
• Ratio of actuarial value to market value	99.9%	107.9%
Actuarial Information (\$000s)		
• Employer normal cost %	21.54%	20.83%
• Unfunded actuarial accrued liability (UAAL)	\$ 1,021,056	\$ 939,010
• Amortization rate	16.64%	15.18%
• Funding period	30.0 years	30.0 years
• GASB funded ratio	81.0%	81.3%
Projected employer contribution based on calculated rate		
• Fiscal year ending June 30,	2015	2014
• Projected payroll (millions)	\$ 399.4	\$ 392.0
• Projected employer contribution (millions)	\$ 152.5	\$ 141.1
(actual contribution rate set by Meet & Confer)		

<sup>1</sup> Employee contribution rate is 9.00%. Members hired after October 9, 2004 contribute 10.25% of pay.

## Schedule of Funding Progress (\$000)

Date	Actuarial Value of Assets (AVA)	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Accrued Liability (UAAL) (3) - (2)	Funded Ratio (2)/(3)	Annual Payroll	UAAL as % of Payroll (4)/(6)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
July 1, 1993	\$ 947,456	\$ 984,495	\$ 37,039	96.2%	\$ 162,143	22.8%
July 1, 1994	1,038,256	1,000,423	(37,833)	103.8%	174,761	(21.6%)
July 1, 1995	1,168,056	1,199,748	31,692	97.4%	182,251	17.4%
July 1, 1996	1,329,570	1,258,217	(71,353)	105.7%	187,134	(38.1%)
July 1, 1998	1,518,081	1,549,341	31,260	98.0%	196,364	15.9%
July 1, 1999 *	1,746,312	1,773,829	27,517	98.4%	246,569	11.2%
July 1, 2000	2,013,491	1,966,404	(47,087)	102.4%	250,691	(18.8%)
July 1, 2001	2,226,307	2,306,427	80,120	96.5%	264,226	30.3%
July 1, 2002	2,337,157	2,593,730	256,573	90.1%	286,150	89.7%
July 1, 2003	2,394,411	2,874,738	480,327	83.3%	300,405	159.9%
July 1, 2004	2,466,070	3,339,224	873,154	73.9%	329,840	264.7%
July 1, 2005	2,508,794	3,392,974	884,180	73.9%	321,057	275.4%
July 1, 2006	2,681,375	3,633,145	951,770	73.8%	327,080	291.0%
July 1, 2007	3,004,927	3,857,680	852,753	77.9%	336,029	253.8%
July 1, 2008	3,337,612	4,078,963	741,351	81.8%	351,525	210.9%
July 1, 2009	3,430,946	4,368,501	937,556	78.5%	366,924	255.5%
July 1, 2010**	3,526,703	4,232,732	706,029	83.3%	377,779	186.9%
July 1, 2011	3,718,052	4,488,142	770,090	82.8%	388,409	198.3%
July 1, 2012	3,888,504	4,747,173	858,669	81.9%	389,884	220.2%
July 1, 2013	4,070,951	5,009,961	939,010	81.3%	391,957	239.6%
July 1, 2014	4,342,936	5,363,992	1,021,056	81.0%	399,447	255.6%

\* Definition of covered payroll changed from base pay to total direct pay less overtime

\*\* Change to Projected Unit Credit cost method. Prior results were provided based on Entry Age Normal.

## Historical Solvency Test (\$000)

Valuation Date	Aggregated Accrued Liabilities for				Actuarial Value of Assets	by Reported Assets		
	Active Members Contributions	Retirees Beneficiaries and Vested Terminations <sup>1</sup>	Members (City Financed Portion)			(5)/(2)	[(5)-(2)]/(3)	[(5)-(2)-(3)]/(4)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
July 1, 1993	\$ 114,279	\$ 401,989	\$ 468,227	\$ 947,456	100.0%	100.0%	92%	
July 1, 1994	123,471	416,053	460,899	1,038,256	100.0%	100.0%	100%	
July 1, 1995	91,687	764,518	343,543	1,168,056	100.0%	100.0%	91%	
July 1, 1996	95,615	812,498	350,104	1,329,570	100.0%	100.0%	100%	
July 1, 1998	99,298	1,017,723	432,320	1,518,081	100.0%	100.0%	93%	
July 1, 1999	107,008	1,157,882	508,939	1,746,312	100.0%	100.0%	95%	
July 1, 2000	111,099	1,324,079	531,225	2,013,491	100.0%	100.0%	100%	
July 1, 2001	138,248	707,152	1,461,027	2,226,307	100.0%	100.0%	95%	
July 1, 2002	145,255	718,779	1,729,696	2,337,157	100.0%	100.0%	85%	
July 1, 2003	153,634	838,090	1,883,014	2,394,411	100.0%	100.0%	74%	
July 1, 2004	153,088	995,841	2,190,295	2,466,070	100.0%	100.0%	60%	
July 1, 2005	249,804	1,259,243	1,883,927	2,508,794	100.0%	100.0%	53%	
July 1, 2006	262,514	1,421,330	1,949,301	2,681,375	100.0%	100.0%	51%	
July 1, 2007	275,990	1,575,900	2,005,790	3,004,927	100.0%	100.0%	57%	
July 1, 2008	294,678	1,726,121	2,058,165	3,337,612	100.0%	100.0%	64%	
July 1, 2009	312,489	1,872,226	2,183,786	3,430,946	100.0%	100.0%	57%	
July 1, 2010	149,252	1,998,683	2,084,797	3,526,703	100.0%	100.0%	66%	
July 1, 2011	160,828	2,146,222	2,181,093	3,718,052	100.0%	100.0%	65%	
July 1, 2012	167,739	2,320,239	2,259,195	3,888,504	100.0%	100.0%	62%	
July 1, 2013	163,660	2,501,745	2,344,556	4,070,951	100.0%	100.0%	60%	
July 1, 2014	162,982	2,834,747	2,366,263	4,342,936	100.0%	100.0%	57%	

Note: Dollar amounts in \$000

<sup>1</sup> Column (3) included AAL for DROP participants until 2000, now in Column (4)

**Houston Police Officers' Pension System  
Actuarial Valuation – July 1, 2014**

Table 17

**Historical Active Participant Data**

Valuation Date	Active Count	Average Age	Average Svc	Covered Payroll	Average Salary	Percent Changes
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1988	4,239	35.0	N/A	\$121,667	\$28,702	1.6%
1989	4,105	35.7	N/A	\$122,803	\$29,915	4.2%
1990	4,073	36.2	N/A	\$126,665 <sup>(1)</sup>	\$31,099	4.0%
1992	4,120	36.8	N/A	\$143,020	\$34,714	11.6%
1993	4,498	36.7	N/A	\$159,321	\$35,420	2.0%
1994	4,705	36.8	N/A	\$162,143	\$34,462	-2.7%
1995	4,921	36.9	N/A	\$174,761	\$35,513	3.0%
1996 <sup>(2)</sup>	4,395	35.1	N/A	\$150,903	\$34,335	-3.3%
1997	4,282	35.5	N/A	\$149,631	\$34,944	1.8%
1998	4,247	35.9	N/A	\$153,479	\$36,138	3.4%
1999	4,253	36.3	N/A	\$187,967 <sup>(3)</sup>	\$44,196 <sup>(3)</sup>	22.3% <sup>(3)</sup>
2000	4,137	36.7	N/A	\$179,415	\$43,368	-1.9%
2001 <sup>(4)</sup>	5,325	40.2	N/A	\$264,226 <sup>(5)</sup>	\$49,620 <sup>(5)</sup>	14.4% <sup>(5)</sup>
2002	5,352	40.7	N/A	\$286,150	\$53,466	7.8%
2003	5,387	41.3	N/A	\$300,405	\$55,765	4.3%
2004	5,225	41.7	N/A	\$329,840	\$63,127	13.2%
2005	4,867	42.0	N/A	\$321,057 <sup>(6)</sup>	\$65,966 <sup>(6)</sup>	4.5% <sup>(6)</sup>
2006	4,785	42.3	N/A	\$327,080	\$68,355	3.6%
2007	4,879	42.1	N/A	\$336,029	\$68,873	0.8%
2008	5,065	42.0	15.7	\$351,525	\$69,403	0.8%
2009	5,245	41.8	15.4	\$366,924	\$69,957	0.8%
2010	5,347	41.9	15.3	\$377,779	\$70,652	1.0%
2011	5,312	42.3	15.7	\$388,409	\$73,119	3.5%
2012	5,326	42.5	15.7	\$389,884	\$73,204	0.1%
2013	5,364	42.6	15.7	\$391,957	\$73,072	-0.2%
2014	5,343	42.6	15.7	\$399,447	\$74,761	2.3%

<sup>(1)</sup> Reflects the November 1, 1990 pay increase.

<sup>(2)</sup> For the July 1, 1996 to July 1, 2000 valuations, includes those participants currently accruing benefits (i.e. excludes current DROP participants).

<sup>(3)</sup> Definition of covered payroll changed from base pay to total direct pay less overtime.

<sup>(4)</sup> Beginning July 1, 2001, includes active participants eligible for DROP.

<sup>(5)</sup> Beginning July 1, 2001, the definition of total direct pay changed from the average of the last 26 pay periods to the highest bi-weekly pay period.

<sup>(6)</sup> Beginning October 9, 2004, pensionable pay is the total of the last 26 pay periods, excluding CMEPP and SOSPP.

Houston Police Officers' Pension System  
Actuarial Valuation – July 1, 2014

Table 18

**Retirees, Beneficiaries, and Disabled Participants Added to and Removed from Rolls**

Valuation July 1, (1)	Added to Rolls		Removed from Rolls		Rolls-End of Year		% Increase in Annual Allowances (8)	Average Annual Allowances (9)
	Number (2)	Annual Allowances (3)	Number (4)	Annual Allowances (5)	Number (6)	Annual Allowances (7)		
1993	106	\$ 2,172	64	\$ 953	1,419	\$ 27,286	7.1%	\$ 19,229
1994	107	2,425	48	847	1,478	29,464	8.0%	19,935
1995	893	19,109	36	602	2,335	48,624	65.0%	20,824
1996 *	182	3,481	29	618	2,488	52,772	8.5%	21,211
1998	159	3,483	28	589	2,619	63,957	21.2%	24,420
1999	150	3,770	46	1,001	2,723	70,432	10.1%	25,866
2000	233	6,421	36	857	2,920	76,401	8.5%	26,165
2001 **	131	3,755	1,250	33,892	1,801	54,006	(29.3%)	29,987
2002	104	2,809	46	1,113	1,859	55,013	1.9%	29,593
2003	106	2,967	47	1,109	1,918	61,531	11.8%	32,081
2004	220	9,172	33	1,014	2,105	70,307	14.3%	33,400
2005	353	15,962	55	1,776	2,403	86,933	23.6%	36,177
2006	254	10,195	66	2,197	2,549	96,812	11.4%	37,980
2007	175	8,056	49	1,809	2,717	105,481	9.0%	38,823
2008	149	11,889	57	1,995	2,809	115,375	9.4%	41,073
2009	154	9,639	63	2,275	2,900	122,738	6.4%	42,324
2010	165	8,891	56	2,355	3,009	129,274	5.3%	42,963
2011	171	10,567	59	2,218	3,121	137,623	6.5%	44,096
2012	180	11,934	71	2,820	3,230	146,737	6.6%	45,429
2013	183	11,674	64	2,345	3,349	156,066	6.4%	46,601
2014	217	13,857	63	2,627	3,503	167,296	7.2%	47,758

\* From June 30, 1996 through June 30, 2001 includes DROP participants.

\*\* Beginning July 1, 2001 excludes active participants eligible for DROP.

Note: Dollar amounts in \$000

**Membership Data**

	July 1, 2014 (1)	July 1, 2013 (2)	July 1, 2012 (3)
1. Active members			
a. Number	5,343	5,364	5,326
b. Number in DROP	1,920	1,871	1,751
c. Total payroll	\$ 399,446,734	\$ 391,957,035	\$ 389,883,887
Payroll in DROP	\$ 167,464,715	\$ 160,525,437	\$ 150,041,249
d. Average salary	74,761	73,072	73,204
e. Average age	42.6	42.6	42.5
f. Average service	15.7	15.7	15.7
2. Inactive participants			
a. Vested	28	26	31
b. Total annual benefits (deferred)	\$ 741,618	\$ 700,082	\$ 842,031
c. Average annual benefit	26,486	26,926	27,162
3. Service retirees			
a. Number	2,737	2,592	2,478
b. Total annual benefits	\$ 134,837,893	\$ 124,620,427	\$ 116,585,404
c. Average annual benefit	49,265	48,079	47,048
d. Average age	64.4	64.0	63.6
4. Disabled retirees			
a. Number	148	146	147
b. Total annual benefits	\$ 6,420,044	\$ 6,308,203	\$ 6,039,796
c. Average annual benefit	43,379	43,207	41,087
d. Average age	54.9	54.3	53.6
5. Beneficiaries and spouses			
a. Number	590	585	574
b. Total annual benefits	\$ 25,296,561	\$ 24,437,628	\$ 23,269,735
c. Average annual benefit	42,876	41,774	40,540
d. Average age	69.3	69.3	68.9

## Summary of Actuarial Assumptions and Methods

The following methods and assumptions were used in preparing the July 1, 2014 actuarial valuation report.

### 1. Valuation Date

The valuation date is as of July 1<sup>st</sup>, the first day of each plan year. This is the date as of which the actuarial present value of future benefits and the actuarial value of assets are determined.

### 2. Actuarial Cost Method

The actuarial valuation uses the Projected Unit Credit (PUC) actuarial cost method. Under this method, the employer contribution rate is the sum of (i) the employer normal cost rate, and (ii) a rate that will amortize the unfunded actuarial accrued liability (UAAL).

- a. The valuation is prepared on the projected benefit basis, under which the present value, at the investment return rate assumed to be earned in the future (currently 8.00%), of each participant's expected benefit payable at retirement or death is determined, based on his/her age, service, gender and compensation. The calculations take into account the probability of a participant's death or termination of employment prior to becoming eligible for a benefit, as well as the possibility of his/her terminating with a service, disability, or survivor's benefit. Future salary increases are also anticipated. The present value of the expected benefits payable for the active participants is added to the present value of the expected future payments to retired participants and beneficiaries to obtain the present value of all expected benefits payable from the System on account of the present group of participants and beneficiaries.
- b. The employer contributions required to support the benefits of the System are determined using a level funding approach, and consist of a normal cost contribution and an accrued liability contribution.
- c. The normal cost is the present value of the portion of projected benefits that is attributable to service accrued in the current year. Under the PUC cost method, if actual plan experience is close to assumptions, the normal cost will increase each year for each employee as he or she approaches retirement age. However, if the age/service/gender characteristics of the active group remain relatively constant, the total normal cost can be expected to remain somewhat level as a percentage of payroll.

- d. The accrued liability is the portion of the present value of projected benefits attributable to service credited prior to the valuation date. The unfunded actuarial accrued liability contributions are determined by subtracting the actuarial value of assets from the actuarial accrued liability and amortizing the result over 30 years from the valuation date.

The contribution rate determined by this valuation will not be effective until one year later, but the determination of the rate does not reflect this deferral. It is assumed that there will be no change in the employer normal cost rate due to the deferral, and it is assumed that payments are made uniformly throughout the year.

### 3. Actuarial Value of Assets

The actuarial value of assets is equal to the market value of assets less a five-year phase in of the excess (shortfall) between expected investment return and actual income. The actual calculation is based on the difference between actual market value and the expected actuarial value of assets each year, and recognizes the cumulative excess return (or shortfall) over at a minimum rate of 20% per year. Each year a base is set up to reflect this difference. If the current year's base is of opposite sign to the deferred bases then it is offset dollar for dollar against the deferred bases. Any remaining bases are then recognized over the remaining period for the base (5 less the number of years between the bases year and the valuation year). This is intended to ensure the smoothed value of assets will converge towards the market value in a reasonable amount of time. Expected earnings are determined using the assumed investment return rate and the beginning of year actuarial value of assets (adjusted for receipts and disbursements during the year). The returns are computed net of investment expenses.



4. Economic Assumptions

- a. Investment return: 8.00% per year, compounded annually, composed of an assumed 2.75% inflation rate and a 5.25% net real rate of return. This rate represents the assumed return, net of all investment expenses.
- b. Cost of Living Adjustment (COLA): Monthly benefits for participants receiving payments are increased each April 1 by 80% of the increase in the Consumer Price Index for All Urban Consumers (CPI-U) for the preceding year, with a minimum of 2.40% and a maximum of 8.00%. For this valuation, the annual COLA is assumed to be 2.70%.
- c. Salary increase rate: A service-related component, plus a 2.00% inflation and productivity component, as follows:

Years of Service	Service-related Component	Total Annual Rate of Increase Including 2.00% Inflation & Productivity Component
(1)	(2)	(3)
1	12.00%	14.00%
2	9.00%	11.00%
3	7.25%	9.25%
4	6.00%	8.00%
5	5.50%	7.50%
6	5.00%	7.00%
7	4.25%	6.25%
8	4.00%	6.00%
9	3.50%	5.50%
10	3.25%	5.25%
11	3.00%	5.00%
12	2.75%	4.75%
13	2.50%	4.50%
14	2.25%	4.25%
15	2.00%	4.00%
16	1.75%	3.75%
17	1.50%	3.50%
18 and Over	0.00%	2.00%

- d. Payroll growth rate: In the amortization of the unfunded actuarial accrued liability, payroll is assumed to increase 2.75% per year. This increase rate is solely due to the effect of inflation on salaries, with no allowance for future membership growth.

5. Demographic Assumptions

## a. Retirement Rates

Age	Service		
	<25	25 - 29	30+
40-49	4.0%	6.0%	10.0%
50-54	4.0%	6.0%	10.0%
55-59	6.8%	10.2%	17.0%
60-64	9.6%	14.4%	24.0%
65 +	100.0%	100.0%	100.0%

For members hired after October 9, 2004, 30% is added to the retirement rate at age 55.

## b. DROP Participation

100% of eligible active participants are assumed to elect the DROP.

## c. DROP Entry Date

Active members (not already in DROP) are assumed to take advantage of the DROP and enter when first eligible. Participants are assumed to elect the maximum duration for the back DROP, up to 20 years.

## d. DROP Interest Credit

A minimum of 3.00% interest will be credited to existing DROP accounts with a maximum of 7.00%. If the System's actuary certifies that past service costs are fully funded, the credit may be as high as 10.00%. For this actuarial valuation, the drop interest credit is assumed to be 6.40%.

## e. Withdrawal of DROP and PROP Balances

Members are assumed to withdraw balances in equal annual installments over 10 years.

## f. Mortality rates (for active and retired members)

- Healthy retirees - The Gender-distinct RP2000 Combined Healthy Mortality Tables with Blue Collar Adjustment are used with male rates multiplied by 109% and female rates multiplied by 103%. The rates are projected on a fully generational basis by scale BB to account for future mortality improvements.
- Disabled males and females – The gender-distinct RP2000 Disabled Retiree Mortality Tables are used without adjustment. The rates are projected on a fully generational basis by scale BB to account for future mortality improvements.
- Active members - The Gender-distinct RP2000 Combined Healthy Mortality Tables with Blue Collar Adjustment are used with male rates multiplied by 54% and female rates multiplied by 51%. The rates are projected on a fully generational basis by scale BB to account for future mortality improvements. An additive factor of .0003 is applied to all active mortality rates.

Sample rates are shown below for 2014:

Age	Healthy Retired Males	Healthy Retired Females	Disabled Males	Disabled Females	Healthy Active Males	Healthy Active Females
(1)	(2)	(3)	(4)	(5)	(6)	(7)
25	0.04%	0.02%	2.16%	0.71%	0.05%	0.04%
30	0.08%	0.03%	2.16%	0.71%	0.07%	0.04%
35	0.11%	0.05%	2.16%	0.71%	0.09%	0.06%
40	0.14%	0.09%	2.16%	0.71%	0.10%	0.07%
45	0.19%	0.14%	2.16%	0.71%	0.12%	0.10%
50	0.25%	0.19%	2.78%	1.11%	0.15%	0.13%
55	0.44%	0.27%	3.40%	1.54%	0.25%	0.16%
60	0.82%	0.44%	3.81%	1.90%	0.43%	0.25%
65	1.43%	0.90%	4.24%	2.37%	0.74%	0.48%
70	2.36%	1.62%	5.06%	3.18%	1.20%	0.83%
75	3.80%	2.69%	6.64%	4.41%	1.91%	1.36%
80	6.22%	4.26%	8.85%	6.11%	3.11%	2.14%

## g. Termination Rates and Disability Rates

Termination rates (for causes other than death, disability or retirement) are a function of the member's service and are not applied after a member becomes eligible for a retirement benefit. Disability rates are age-based and not applied for members in the DROP or those members eligible to back DROP. Rates at selected ages and service levels are shown below.

Service Based Rates of Termination		
Service	Male	Female
1	2.71%	2.71%
3	1.95%	1.95%
5	1.40%	1.40%
7	1.01%	1.01%
9	0.72%	0.72%
11	0.52%	0.52%
13	0.37%	0.37%
15	0.27%	0.27%
17	0.19%	0.19%
19	0.14%	0.14%
20 +	0.10%	0.10%

Age Based Rates of Disability		
Age	Male	Female
20	0.1149%	0.1149%
25	0.1145%	0.1145%
30	0.1197%	0.1197%
35	0.1321%	0.1321%
40	0.1516%	0.1516%
45	0.1785%	0.1785%
50	0.2126%	0.2126%
55	0.2538%	0.2538%
60	0.3023%	0.3023%

**6. Other Assumptions**

- a. Percent married: 90% of employees are assumed to be married. (No beneficiaries other than the spouse assumed.)
- b. Age difference: Male members are assumed to be three years older than their spouses, and female members are assumed to be three years younger than their spouses.
- c. Percent electing annuity on death (when eligible): All of the spouses of vested, married participants are assumed to elect an annuity.
- d. Percent electing deferred termination benefit: 50% of vested terminating members are assumed to elect a refund rather than take a deferred benefit at age 60.
- e. There will be no recoveries once disabled.
- f. No surviving spouse will remarry.
- g. Assumed age for commencement of deferred benefits: Members electing to receive a deferred benefit are assumed to commence receipt at the first age at which unreduced benefits are available.
- h. Administrative expenses: Administrative expenses are accounted for as an explicit component on the normal cost rate.
- i. Pay increase timing: Beginning of (fiscal) year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date.
- j. Decrement timing: Decrements of all types are assumed to occur mid-year.
- k. Eligibility testing: Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
- l. Decrement relativity: Decrement rates are converted to probabilities in order to account for multiple decrements.
- m. Incidence of Contributions: Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in our Report, and the actual payroll payable at the time contributions are made.

- n. Benefit Service: All members are assumed to accrue one year of service each year. Exact fractional service is used to determine the amount of benefit payable.

## 7. Participant Data

Participant data was supplied in electronic files. There were separate files for (i) active members, (ii) inactive members, and (iii) members and beneficiaries receiving benefits.

The data for active members included birth date, gender, most recent hire date, salary paid during last fiscal year, hours worked by the employee, and employee contribution amounts. For retired members and beneficiaries, the data included date of birth, gender, amount of monthly benefit, and date of retirement. Also included was the member's Group and for members participating in DROP, their account balances and monthly DROP income.

All healthy and disabled retirees are assumed to have 100% joint and survivor annuities, prorated by the 90% marriage assumption and reflecting the three year spousal age differential described above. All beneficiaries are assumed to have life annuity only benefits.

Salary supplied for the current year was based on the earnings for the year preceding the valuation date. This salary was adjusted by the salary increase rate for one year.

In fiscal years when a 27<sup>th</sup> pay period occurs the individual pays for employees who were employed throughout the year will be adjusted by multiplying their reported pay by the ratio of 26/27. In years that have only 26 pay periods no adjustment would be needed.

Assumptions were made to correct for missing, bad, or inconsistent data. These had no material impact on the results presented.

## Summary of Plan Provisions

### Covered Members

All police officers sworn before September 1, 1975 are covered under Plan 1, except those who elected by December 31, 1981 to participate in Plan 3.

All police officers sworn on or after September 1, 1975, but before September 1, 1981 are covered under Plan 2, except those who elected by December 31, 1981 to participate in Plan 3 and those Plan 1.

All other police officers are covered by Plan 3, except those from Police Cadet Classes 70 and 71 who elected to pay additional contributions and transfer to Plan 1.

### Final Compensation

Prior to November 28, 1998

Monthly base salary paid to the participant in his/her last month of service. For any participant from a position held for less than 3 years, final compensation is the average monthly base salary for the 3 years prior to retirement.

After November 28, 1998 but prior to July 1, 2001

Monthly total direct pay less overtime paid to the participant in his/her last month of service. For any participant from a position held for less than 3 years, final compensation is the average monthly base pay for the 3 years prior to retirement plus the other current components of total direct pay.

After July 1, 2001 but prior to October 9, 2004

Highest biweekly pay period (excluding overtime) during the last 26 pay periods annualized. Amounts not paid on a biweekly basis are deducted from period paid. Annual amounts are divided by 26 and added to the highest pay period, including motorcycle allowances.

After October 9, 2004

Average of the last three years of compensation (excluding exempt time, overtime and strategic officer staffing pay). This average will be phased in beginning with the pay period ending after October 9, 2004 until the new definition is fully phased in after 78 pay periods.

### Service Retirement

#### Eligibility

- ▶ Sworn prior to October 9, 2004 20 years of service.
- ▶ Sworn on or after October 9, 2004 Age 55 with 10 years of service.

## Benefit

- ▶ Prior to November 1, 1955      \$75 per month plus \$2 per month for each year of service in excess of 25 years.
- ▶ After November 1, 1955 but prior to January 13, 1968      30% of final compensation plus 1 % of final compensation for each year of service in excess of 20 years.
- ▶ After January 13, 1968 but prior to July 1, 1986      Plans 1 and 2: 30% of final compensation plus 2% of final compensation for each year of service in excess of 20 years.  
Plan 3: 2% of final compensation for each year of service up to 40 years, reduced 0.42% for each month benefit commencement precedes age 55.
- ▶ After July 1, 1986 but prior to July 1, 1988      2% of final compensation for each year of service up to 40 years.
- ▶ After July 1, 1988 but prior to September 1, 1997      45% of final compensation plus 2% of final compensation for each year of service in excess of 20 years; maximum 80% of final compensation. Benefit based on prior formula is payable until July 1, 1991 and recomputed benefit is payable thereafter.
- ▶ After September 1, 1997 but prior to July 1, 2001      50% of final compensation plus 2% of final compensation for each year of service in excess of 20 years; maximum 80% of final compensation.
- ▶ After July 1, 2001 but prior to October 9, 2004      55% of final compensation plus 2% of final compensation for service in excess of 20 years.  
The Pension System recomputed the benefit of each person who retired before July 1, 2001. The retiree's benefit was increased by the result of multiplying the difference between 55% and the percentage used at the time of retirement in computing the retiree's benefit for the first 20 years of service by the base salary of the retiree at the time of retirement. Retroactive cost-of-living increases were not applied to the increased benefit. This recomputed benefit is effective for all payments on or after July 1, 2001.



▶ After October 9, 2004 Participants sworn prior to October 9, 2004 will receive the highest of the following alternatives using Final Average Compensation effective after October 9, 2004, from October 9, 2004 through October 7, 2007:

- 1) 2.25% of Final Average Compensation for each of the first 20 years of service plus 2% of Final Average Compensation for each year of service in excess of 20 years, with a maximum of 80% of Final Average Compensation.
- 2) Benefit participant would have received had participant retired or entered the DROP immediately before October 9, 2004
- 3) Benefit calculated using a sliding average of the pay received for the pay periods elapsed since October 9, 2004.

New participants after October 9, 2004:

2.25% of Final Average Compensation for each of the first 20 years of service plus 2% of Final Average Compensation for each year of service in excess of 20 years, with a maximum of 80% of Final Average Compensation.

**Additional Benefits**

An extra monthly benefit of \$150.00 is payable for life. Effective November 28, 1998, a \$5,000 lump sum is payable upon retirement for members sworn prior to October 9, 2004.

**Terminated Vested  
Pension Benefit**

Eligibility

More than 10 but less than 20 years of service. Termination on or after November 28, 1998.

Benefit

2.75% of final compensation times years of service. This benefit commences at age 60 or at termination of service if later.

**Deferred Retirement  
Option Plan (DROP)**

Eligibility

20 years of service and sworn in prior to October 9, 2004.

Benefit

- ▶ After September 1, 1995 but prior to September 1, 1997 Eligible participants may elect to participate in the DROP until they leave active service. The member's retirement pension will be calculated based on service and earnings at the time the DROP is elected.

A notional account will be maintained for each DROP participant. This account will be credited with the following amounts while the member is participant of the DROP:

- The member's monthly retirement pension, including applicable cost-of-living adjustments,
- The member's contribution to the Pension System, and
- Investment earnings/losses at the rate of the Pension System's earnings/losses averaged over a five-year period. Effective July 1, 2001, this rate is subject to a minimum of 0%.

A benefit equal to the DROP account balance is paid at the time the member leaves active service. The payment is made as a single lump sum.

If a DROP participant suffers an on-duty disability resulting in the inability to perform his/her usual and customary duties as a police officer or dies in the line of duty, he (or his survivors) are allowed to revoke the DROP election and to receive the more generous on-duty disability or death benefits.

- ▶ After September 1, 1997 but prior to December 1, 1998

The Pension System recomputed the benefit of each person who entered the DROP before September 1, 1997. The benefit was increased in the same manner as the retiree's benefit.

- ▶ After December 1, 1998 but prior to July 1, 2001

The Pension System recomputed the benefit of each person who entered the DROP before December 1, 1998. The benefit was recalculated based on Total Direct Pay less overtime upon entry to the DROP. This recomputed benefit is effective for all payments on or after December 1, 1998.

- ▶ After July 1, 2001 but prior to October 9, 2004

The Pension System recomputed the benefit of each person who entered the DROP before July 1, 2001. The member's benefit was increased by the result of multiplying the difference between 55% and the percentage used at the time of DROP entry in computing the member's benefit for the first 20 years of service by the base salary of the member at the time of DROP entry. Retroactive cost-of-living increases were applied to the increased benefit. The account balance for each participant was recomputed as if this new benefit had been effective since DROP entry.

- ▶ After October 9, 2004

A minimum of 3.00% interest will be credited to existing DROP accounts with a maximum of 7.00%. If the actuary certifies that past service costs are fully funded, the credit may be as high as 10.00%.

Benefit Recalculation Effective July 1, 2001, monthly benefit at retirement will be recalculated to be the greater of (i) current monthly benefit, or (ii) monthly benefit based on service at DROP entry and Final Compensation at retirement date.

Back DROP Option Effective on July 1, 2001, a back DROP option is available for all eligible participants. The DROP account is recalculated under the option based on what the account balance would have been had the participant elected the DROP earlier than he/she actually did. The initial DROP entry date cannot be backdated prior to September 1, 1995 or prior to 20 years of credited service, and must be on the first of the month selected.

### Postretirement Option Plan (PROP)

Eligibility Retired from DROP and sworn in prior to October 9, 2004.

#### Benefit

- ▶ After November 28, 1998 but prior to July 1, 2001 A retired member is allowed to leave all or a portion of their DROP account in the System. These accounts are credited every calendar year with the 30-year Treasury bond rate as of June of the preceding year.
- ▶ After July 1, 2001 The interest rate earned on PROP accounts will be the same as the interest rate credited to DROP accounts, including a minimum credited rate of 0%.

### Partial Lump Sum Optional Payment (PLOP)

Eligibility Participant on or after October 9, 2004.

#### Benefit

- ▶ After October 9, 2004 Up to 20% of the actuarial value of the accrued pension at retirement.

### Disability Retirement

Eligibility Effective July 1, 2001, participant partially or totally disabled is eligible for Disability Retirement as defined below:

- Total: Disability is defined as “unable to perform his/her usual and customary duties as a police officer”.
- Partial: Disability is an impairment which renders the participant unable to work as a police officer and which is expected to last 12 months.

**Benefit**

- ▶ Duty-connected
 

Total: The service retirement benefit accrued to date of disability (or 20 years, if greater).

Partial: 35% of final compensation is payable for life or as long as he remains incapacitated.
- ▶ Not duty-connected
 

Total or partial: The disability benefit is 2.75% of final compensation times years of service up to 20, minimum 27.5% of final compensation.

**Additional Benefits**

For participants before October 9, 2004, an education allowance equal to 100% of final compensation less disability benefit is payable for up to four years for off-duty or duty-related disability. Proportionate members injured while on-duty as a municipal worker will receive immediate off-duty benefit upon Board approval.

**Survivor Benefits****Eligibility**

Surviving spouses and dependent children and parents of participants, including surviving spouses of retired or disabled participants who were not married at the time of retirement or disability, provided the spouse was married to the participant for at least 5 years at the time of death.

**Benefit**

- ▶ Prior to September 1, 1997
 

If duty-connected: monthly lifetime benefit equal to 100% of final compensation at date of death.

If not duty-connected: monthly lifetime benefit equal to 100% of the service retirement benefit the participant had accrued at the time of death.

Spouse's benefit upon death after retirement: monthly lifetime benefit equal to actual benefit payable at time of death.

Dependent children's benefit if no surviving spouse: the benefit that would have been payable to the spouse is divided equally among the dependent children.

If there is a surviving spouse, the dependent children of Plan 1 and Plan 2 participants receive \$25 per month. Dependent children include unmarried children who are under age 18, and for Plan 3, full-time students under age 22, or permanently disabled children.

	Dependent parent's income if no surviving spouse or children, but there is a dependent parent: the benefit that would have been payable to the spouse will be paid to the dependent parent.
▶ After September 1, 1997 but prior to July 1, 2001	The Pension System recomputed the benefit of each survivor whose original benefit was computed prior to September 1, 1997. The benefit was increased in the same manner as the retiree's benefit.
▶ After July 1, 2001	The Pension System recomputed the benefit of each survivor whose original benefit was computed prior to July 1, 2001. The benefit was increased in the same manner as the retiree's benefit.
Additional Benefits	Effective December 1, 1998, a \$5,000 lump sum is paid upon the death of an active member who was sworn in prior to October 9, 2004.  Effective July 1, 2001, an extra monthly benefit of \$150.00 is payable for life. Children receiving equivalent of the spouse's benefit do not receive this additional benefit.
<b>Benefit Adjustments</b>	
Cost-of-Living	
▶ Prior to October 9, 2004	Monthly benefits for participants receiving payments are increased each April 1 by 2/3 of the increase in the Consumer Price Index for All Urban Consumers (CPI-U) for the preceding calendar year. Effective September 1, 1997 this increase is subject to a minimum of 3.0% per year compounded and a maximum increase of 8.0% per year compounded.
▶ After October 9, 2004	Monthly benefits for participants receiving payments are increased each April 1 by 80% of the increase in the Consumer Price Index for All Urban Consumers (CPI-U) for the preceding year, with a minimum of 2.4% and a maximum of 8%.
13th Benefit Check	Effective November 28, 1998, a 13th benefit check is paid to current retirees and DROP members when: <ul style="list-style-type: none"> <li>– The assets on the fund equal or exceed the liabilities after the 13th benefit check is paid.</li> <li>– The return on investments for the preceding fiscal year exceeds 9.25%.</li> <li>– The payment of the benefit will not cause the City of Houston's contribution to the System to increase.</li> <li>– Effective October 9, 2004, the funded ratio of the plan must be at least 120% for the 13th check to be paid out.</li> </ul>

## Service Adjustments

Effective November 28, 1998, participants with previous service with the City in non-classified positions may use that service to satisfy the service requirement of 20 years for retirement purposes only.

Effective July 1, 2001, participants who have service credit in more than one City of Houston Pension Plan may use their combined service to qualify for DROP participation.

Effective July 1, 2001, participants involuntarily transferred to the System from the Houston Municipal Employees System will receive service under this plan for years worked while serving as a City Marshall, Airport Police or Park Police.

**Contributions**

## Employee Contributions

- ▶ Prior to December 1, 1998      Each participant contributes 8.75% of base salary.
- ▶ After December 1, 1998 but before October 9, 2004      Each participant contributes 8.75% of average total direct pay less overtime.
  
- ▶ After October 9, 2004
  - Members sworn in prior to October 9, 2004      Each participant contributes 9.00% of pay. The additional 0.25% will be credited to the Plan's general fund.
  - Others      Each participant contributes 10.25% of pay, which will be credited to the Plan's general fund.

## Refunds

Refunds of contributions are made if

- (i) The participant dies before 10 years of service and the death is not duty-connected,
- (ii) The participant dies with no eligible survivor,
- (iii) A Plan 1 or 2 participant leaves service before eligibility for retirement after completing 5 years of service, or
- (iv) A Plan 3 participant leaves service with less than 20 years of service.

Contributions are refunded without interest.

Employer Contribution	The City of Houston will follow the following contribution schedule:	
	Fiscal Year Ending (June 30 <sup>th</sup> )	City Contribution Amount
	2001	\$ 30,645,000
	2002	32,645,000
	2003	34,645,000
	2004	36,645,000
	2005	36,645,000
	2006	16% of total compensation, with a minimum of \$53,000,000
	2007-2011	\$5,000,000 above the prior year's payment
	2012	83,000,000 fixed payment with any shortfall not to exceed 17,000,000*
	2013	93,000,000 fixed payment with any shortfall not to exceed 8,500,000*
	2014	103,000,000 fixed payment

\*Any shortfall shall be financed at 8.5% interest and paid in FYE 2015.

For all subsequent Fiscal Years, and until the Funded Ratio reaches 100%, City payments shall increase each City Fiscal Year by \$10,000,000 until said 100% of funding is reached. Once the Funded Ratio has reached 100%, City payments each City Fiscal Year shall be in amounts equivalent to the greater of 16% of pay, as defined herein, or the ARC. The 2011 Meet & Confer Agreement is to remain in effect until June 30, 2023.

In addition, on the first day of City Fiscal Year 2012, once the Funded Ratio reaches 80%, if it should ever be subsequently determined that the Funded Ratio has declined below such 80%, then in the City Fiscal Year next following such determination, the City shall pay such additional amounts to the Houston Police Officers' Pension System as necessary to increase the Funded Ratio to 80%.

#### **Changes in Plan Provisions from the Prior Valuation**

There were no changes to the plan provisions from the prior actuarial valuation.

## STATISTICAL SECTION

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## STATISTICAL SECTION

### Summary

This section of the System's comprehensive annual financial report presents detailed information as a context for understanding what the information in the financial statements, note disclosures, and required supplementary information says about the System's overall financial health. All information presented was derived from the comprehensive annual financial reports for the relevant year and/or the System's benefits administration system.

#### *Financial Trends*

The **Changes in Plan Net Assets** schedule on page 89 shows the additions and deductions from plan net assets and the resulting changes in plan net assets for the ten years ending June 30, 2015. Contributions from members and the City have grown steadily, increasing 85% during this ten year period, while deductions from plan net assets, which are primarily for benefits paid to members, have increased 72% during this time. The System's investment income during this ten year period, even with a loss in 2009, provides 67% of additions to plan net assets.

City and member contributions to the System are external sources of the additions to plan net assets. **Contribution Rates** on page 90 show what percent the City's and the members' contributions are of payroll for the ten years ending June 30, 2015. The accompanying chart of **Contributions and Benefits Paid** compares the total contributions made and the benefits paid for the ten years ending June 30, 2015. While the growth in benefits paid exceeds the growth in contributions, the City's contributions under the June 30, 2011 Agreement are scheduled to continue to increase over the coming years.

Contributions are not the only source from which benefits are paid. Earnings from the System's investments are the fund's internal sources of and, in most years, the largest component of additions to plan net assets. The **Investment Income** schedule on page 91 provides details of the System's net investment gain/loss for the ten years ending June 30, 2015.

**Deductions from Net Assets for Benefits and Refunds by Type** on page 92 presents a detailed view of the benefits paid to members and refunds for the ten years ending June 30, 2015, and the chart on page 93 graphically represents this data. Service retirements account for the majority of benefit payments, growing over the last several years as the number of retirees has increased. Lump sum benefits are payments members and survivors receive at their discretion from their lump sum accounts either on or after the date they begin receiving monthly benefit payments, and therefore vary from year to year.

On page 94, **Valuation of Assets as a Percent of Pension Liabilities** shows the percentage of the pension liability that is funded and **Net Assets Compared to Pension Liability** compares the actuarial value of the System's assets to the actuarial accrued liability. These charts graphically represent the funding progress of the System for the ten years ending June 30, 2014. The existence of an unfunded actuarial liability does not necessarily indicate financial problems. The System and the City entered into an agreement on June 30, 2011, which if maintained and adequate earnings and gains are provided on investments, the System is projected to improve its funded status.

#### *Participant Information*

The **Membership** schedule on page 95 provides a breakdown of the plan membership for the ten years ending June 30, 2015. For fiscal year 2015, active members decreased by 85 to 5,262 and retired members and their beneficiaries increased by 170.

#### *Operating Information*

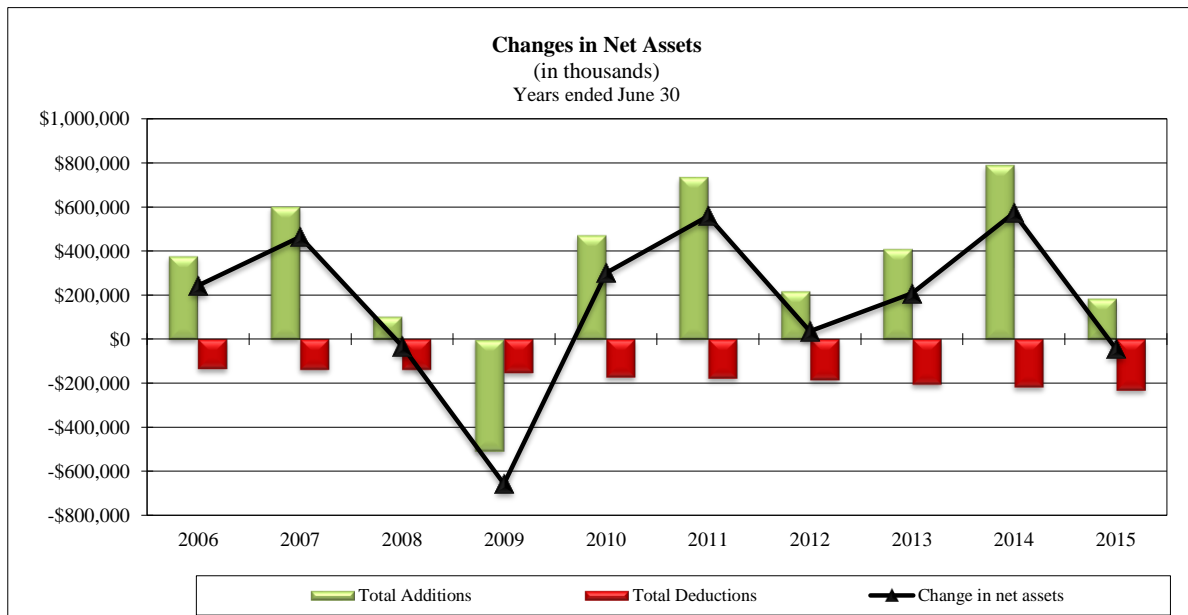
The **Pensions in Force** and **Pensions Awarded** schedules on page 96 provide the number of pensions by type, age and payment amount. The **Average Monthly Benefit Amounts by Years Credited Service** on page 97 presents the average final average salary and the number of retired members, in five-year increments of credited service, for the ten years ended June 30, 2015. The **DROP and PROP Activity** schedules on page 98 provide information about the total amount in DROP and PROP accounts and the total number of participants as well as the changes to those totals for the ten years ending June 30, 2015.

STATISTICAL SECTION

**Changes in Plan Net Assets  
Previous Ten Fiscal Years  
(\$000's)**

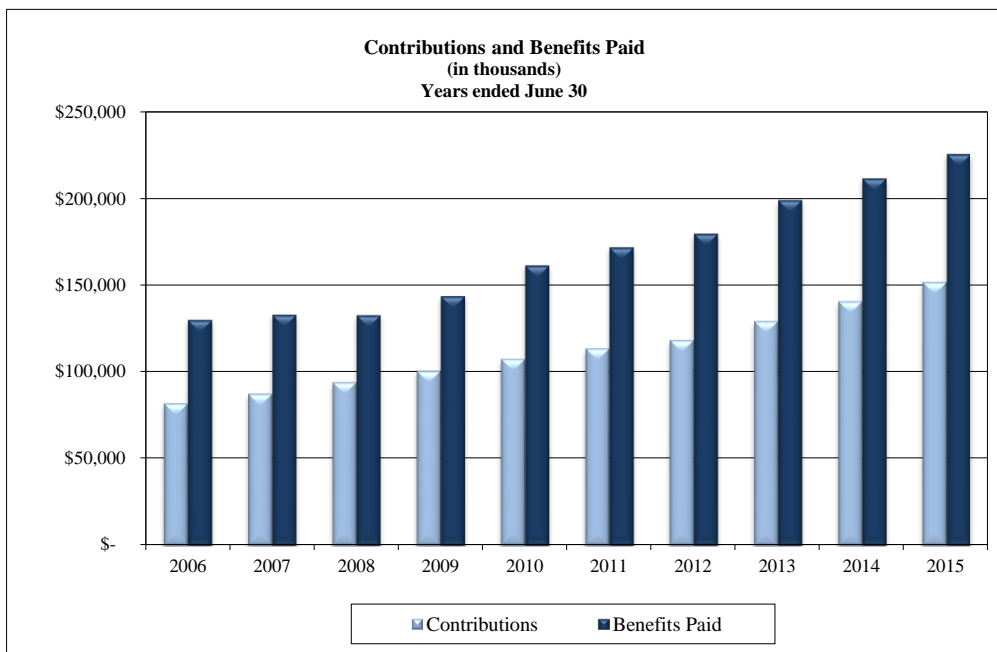
Fiscal Year	2006	2007	2008	2009	2010
<b>Additions</b>					
City contributions	\$ 53,068	\$ 58,000	\$ 63,000	\$ 68,000	\$ 73,192
Members contributions	28,863	29,489	31,003	32,519	34,218
Investment income (net of expenses)	294,966	512,873	9,350	(607,482)	364,650
Securities lending income (net of expenses)	1,101	1,239	2,392	1,427	473
<b>Total additions to plan net assets</b>	<b>377,998</b>	<b>601,601</b>	<b>105,745</b>	<b>(505,536)</b>	<b>472,533</b>
<b>Deductions:</b>					
Benefits paid to members	130,443	133,351	133,049	144,112	161,735
Refunds to members	700	739	500	618	547
Professional and administrative expense	2,958	2,950	3,564	7,311	8,945
<b>Total deductions from plan net assets</b>	<b>134,101</b>	<b>137,040</b>	<b>137,113</b>	<b>152,041</b>	<b>171,227</b>
<b>Change in net assets</b>	<b>\$ 243,897</b>	<b>\$ 464,561</b>	<b>\$ (31,368)</b>	<b>\$ (657,577)</b>	<b>\$ 301,306</b>

Fiscal Year	2011	2012	2013	2014	2015
<b>Additions</b>					
City contributions	\$ 78,287	\$ 83,027	\$ 93,392	\$ 103,372	\$ 113,665
Members contributions	35,122	35,151	35,586	37,012	37,719
Investment income (net of expenses)	621,557	102,095	281,724	649,022	35,249
Securities lending income (net of expenses)	449	485	269	131	92
<b>Total additions to plan net assets</b>	<b>735,415</b>	<b>220,758</b>	<b>410,971</b>	<b>789,537</b>	<b>186,725</b>
<b>Deductions:</b>					
Benefits paid to members	172,041	180,014	199,255	211,690	225,656
Refunds to members	420	704	641	906	945
Professional and administrative expense	4,364	3,689	3,668	3,439	3,478
<b>Total deductions from plan net assets</b>	<b>176,825</b>	<b>184,407</b>	<b>203,564</b>	<b>216,035</b>	<b>230,079</b>
<b>Change in net assets</b>	<b>\$ 558,590</b>	<b>\$ 36,351</b>	<b>\$ 207,407</b>	<b>\$ 573,502</b>	<b>\$ (43,354)</b>



**STATISTICAL SECTION**  
**Contribution Rates**  
**Previous Ten Fiscal Years**

Fiscal Year	Percent of Payroll	
	City	Members
<b>2006</b>	11.26%	8.61%
<b>2007</b>	16.53%	8.99%
<b>2008</b>	17.73%	9.02%
<b>2009</b>	18.75%	9.23%
<b>2010</b>	19.34%	9.25%
<b>2011</b>	19.95%	9.33%
<b>2012</b>	20.72%	9.30%
<b>2013</b>	21.38%	9.05%
<b>2014</b>	26.37%	9.44%
<b>2015</b>	28.46%	9.44%



STATISTICAL SECTION

**Investment Income**  
**Previous Ten Fiscal Years**  
**(\$000's)**

Fiscal Year	2006	2007	2008	2009	2010
<b>Investing activities</b>					
Net appreciation (depreciation) in fair value of investments	\$ 256,825	\$ 459,957	\$ (26,749)	\$ (643,053)	\$ 330,724
Interest	30,201	38,304	34,603	31,452	30,029
Dividends	21,926	27,581	19,540	13,170	16,608
Other income	157	147	142	57	72
<b>Total</b>	<b>309,109</b>	<b>525,989</b>	<b>27,536</b>	<b>(598,374)</b>	<b>377,433</b>
Less investment expense	(14,143)	(13,116)	(18,186)	(9,108)	(12,783)
<b>Net income (loss) from investing activities</b>	<b>294,966</b>	<b>512,873</b>	<b>9,350</b>	<b>(607,482)</b>	<b>364,650</b>
<b>Securities lending activities</b>					
Securities lending income	1,478	1,652	3,189	1,903	631
Securities lending expense	(377)	(413)	(797)	(476)	(158)
<b>Net income from securities lending activities</b>	<b>1,101</b>	<b>1,239</b>	<b>2,392</b>	<b>1,427</b>	<b>473</b>
<b>Total investment income (loss)</b>	<b>296,067</b>	<b>514,112</b>	<b>11,742</b>	<b>(606,055)</b>	<b>365,123</b>

Fiscal Year	2011	2012	2013	2014	2015
<b>Investing activities</b>					
Net appreciation (depreciation) in fair value of investments	\$ 594,052	\$ 53,935	\$ 241,324	\$ 625,973	\$ 21,504
Interest	31,180	47,121	32,330	25,288	16,156
Dividends	18,998	19,200	20,238	18,119	20,714
Other income *	365	1,135	2,550	2,167	-
<b>Total</b>	<b>644,595</b>	<b>121,391</b>	<b>296,442</b>	<b>671,547</b>	<b>58,374</b>
Less investment expense	(23,038)	(19,296)	(14,718)	(22,525)	(23,125)
<b>Net income (loss) from investing activities</b>	<b>621,557</b>	<b>102,095</b>	<b>281,724</b>	<b>649,022</b>	<b>35,249</b>
<b>Securities lending activities</b>					
Securities lending income	599	646	359	175	123
Securities lending expense	(150)	(161)	(90)	(44)	(31)
<b>Net income from securities lending activities</b>	<b>449</b>	<b>485</b>	<b>269</b>	<b>131</b>	<b>92</b>
<b>Total investment income (loss)</b>	<b>\$ 622,006</b>	<b>\$ 102,580</b>	<b>\$ 281,993</b>	<b>\$ 649,153</b>	<b>\$ 35,341</b>

\* The June 30, 2011 Agreement with the City allowed for a shortfall in the City's fixed payment for contributions for fiscal years 2012 and 2013, for which the City started making quarterly interest payments of \$361 thousand in fiscal year 2012 and \$542 thousand in fiscal year 2013. These payments are included in Other income.

STATISTICAL SECTION

**Deductions from Net Assets for Benefits and Refunds by Type  
Previous Ten Fiscal Years  
(\$000's)**

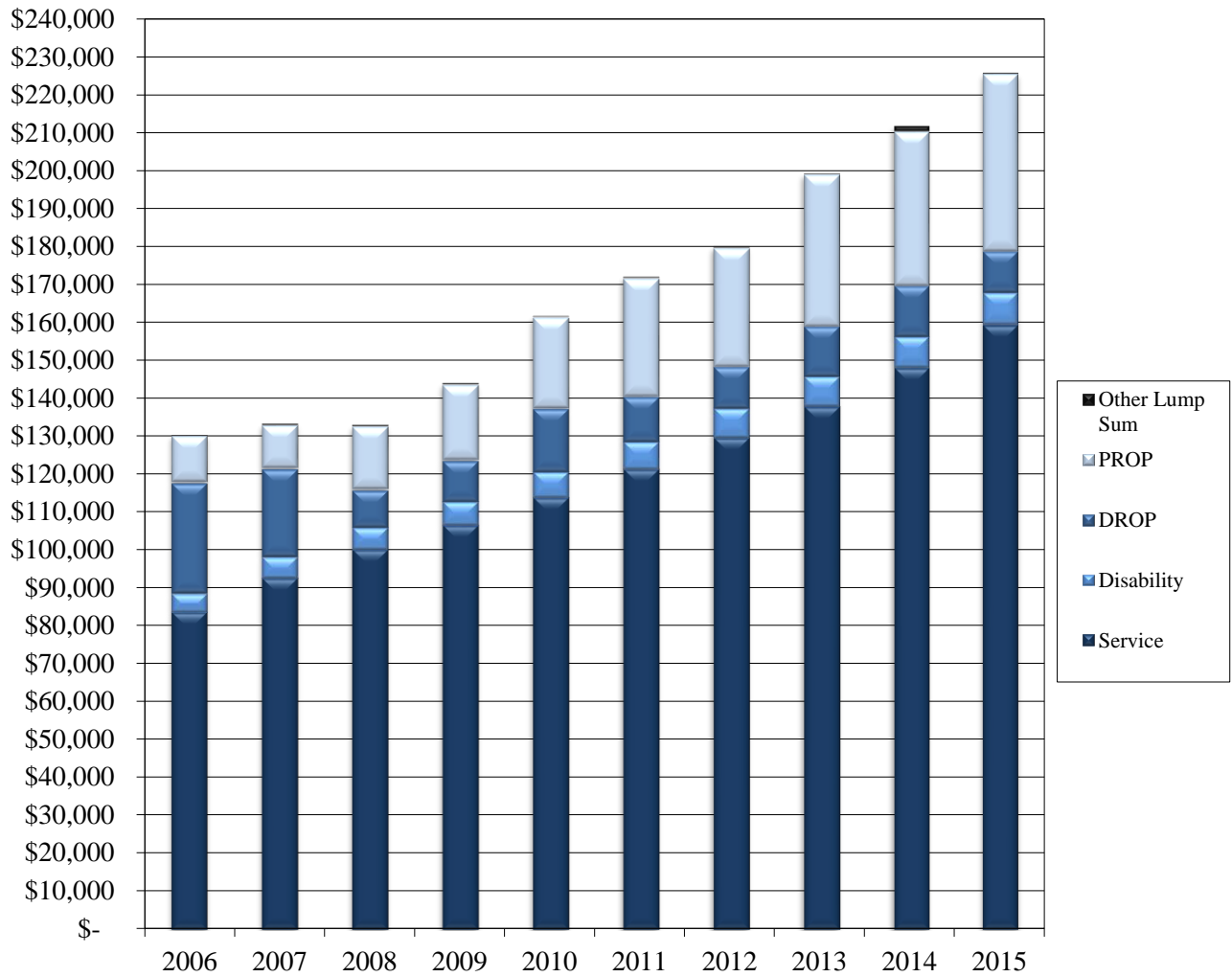
Fiscal Year	2006	2007	2008	2009	2010
<b>Type of Benefit</b>					
Service					
Retirees	\$ 69,074	\$ 77,639	\$ 83,925	\$ 89,226	\$ 95,198
Survivors	14,612	14,965	16,203	17,291	18,612
Disability					
Retirees - duty	3,378	4,003	4,154	4,334	4,675
Retirees - nonduty	347	313	371	444	516
Survivors	1,364	1,517	1,531	1,715	1,868
Lump Sum					
DROP distributions	29,272	23,315	9,937	10,889	16,682
PROP distributions	12,233	11,303	16,680	19,922	24,035
Other *	163	296	248	291	149
<b>Total benefits</b>	<b>\$ 130,443</b>	<b>\$ 133,351</b>	<b>\$ 133,049</b>	<b>\$ 144,112</b>	<b>\$ 161,735</b>
<b>Type of Refund</b>					
Death	\$ -	\$ -	\$ -	\$ 3	\$ -
Separation	700	739	500	615	547
<b>Total refunds</b>	<b>\$ 700</b>	<b>\$ 739</b>	<b>\$ 500</b>	<b>\$ 618</b>	<b>\$ 547</b>

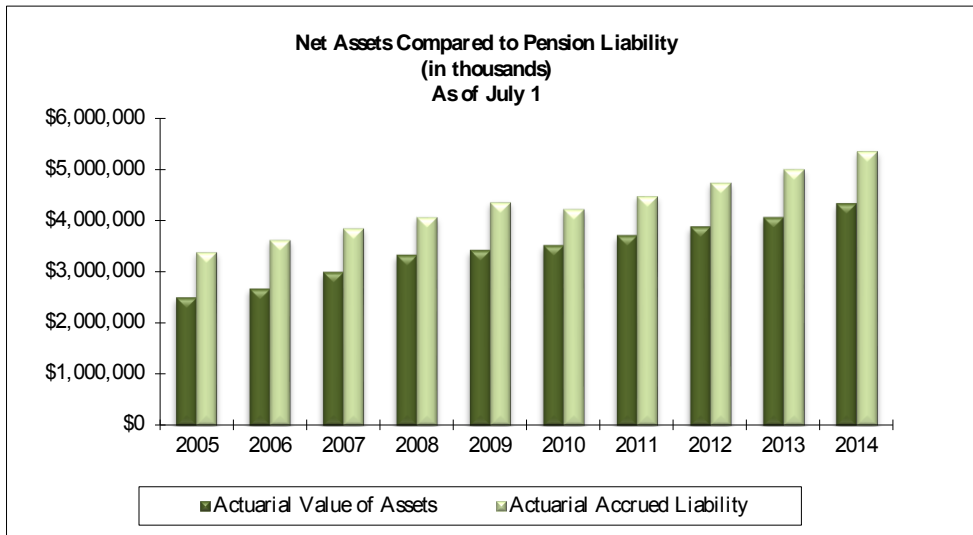
Fiscal Year	2011	2012	2013	2014	2015
<b>Type of Benefit</b>					
Service					
Retirees	\$ 101,854	\$ 108,886	\$ 116,217	\$ 125,616	\$ 135,705
Survivors	19,425	20,694	21,586	22,333	23,510
Disability					
Retirees - duty	4,989	5,218	5,378	5,517	5,678
Retirees - nonduty	493	538	546	598	626
Survivors	1,960	2,147	2,120	2,195	2,290
Lump Sum					
DROP distributions	11,941	11,078	13,334	13,526	11,054
PROP distributions	31,125	31,180	39,857	40,529	46,575
Other *	254	273	217	1,376	218
<b>Total benefits</b>	<b>\$ 172,041</b>	<b>\$ 180,014</b>	<b>\$ 199,255</b>	<b>\$ 211,690</b>	<b>\$ 225,656</b>
<b>Type of Refund</b>					
Death	\$ -	\$ -	\$ -	\$ -	\$ -
Separation	420	704	641	906	945
<b>Total refunds</b>	<b>\$ 420</b>	<b>\$ 704</b>	<b>\$ 641</b>	<b>\$ 906</b>	<b>\$ 945</b>

\* Lump Sum, Other: Under the provisions of Article 6243g-4, Vernon's Annotated Texas Statutes (VATS), Sec. 12(b) and Sec. 15(c) a member who retires, including a member who was a DROP participant, and begins to receive a monthly service pension shall receive a one-time lump sum payment of \$5,000. This benefit became effective November 23, 1998 with the first payments in 1999. From 2003 through May, 2005, the amount reported represents those payments to members who were not DROP participants. Payments to DROP participants are reported with the DROP distributions, because they are processed and recorded together for administrative purposes. Starting in June 2006, all one-time lump sum payments of \$5,000 are reported with the DROP distributions.

Article 6243g-4, Vernon's Annotated Texas Statutes (VATS), Sec. 15(h) provides for the payment of an additional monthly disability benefit to assist members retired due to disability with the costs of an education or training program. Effective January 1, 2006, payment of the additional monthly disability benefit occurs only after the member successfully completes each semester in the form of a lump sum. The first payments totaling \$118 thousand were made in June 2006.

**Total Benefit Payments by Type**  
 (in thousands)  
 Years ended June 30



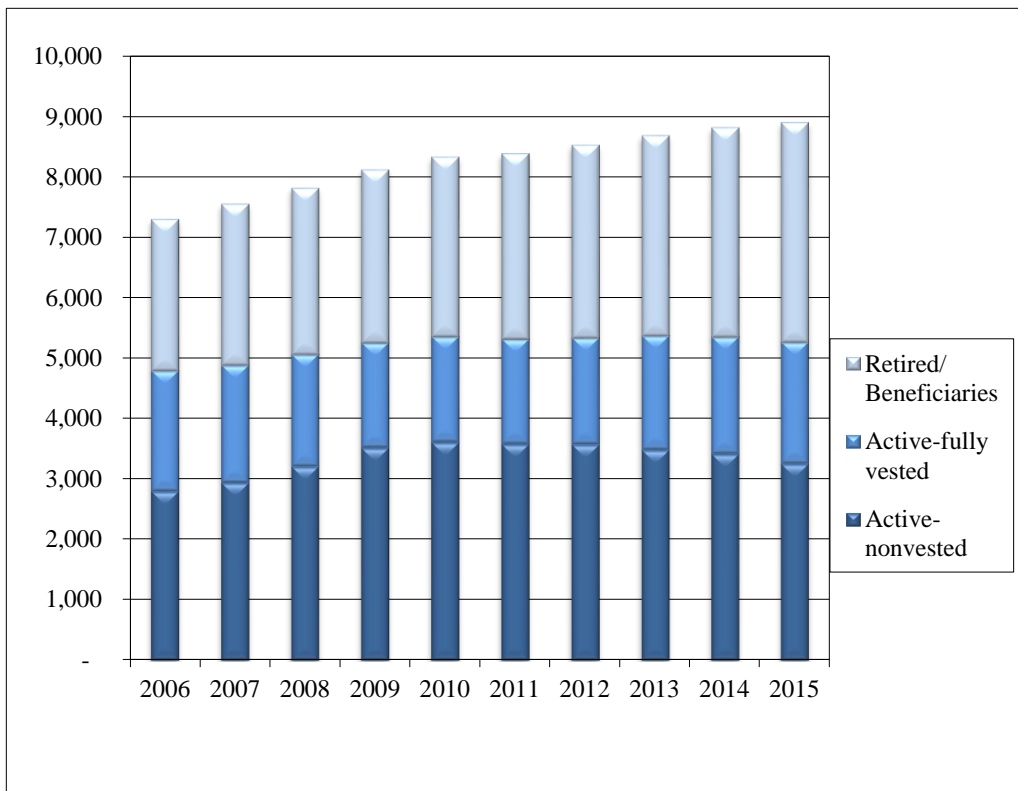


Charts through most recent actuarial valuation dated July 1, 2014.

STATISTICAL SECTION

**Membership  
Last Ten Fiscal Years**

Fiscal Year	Active		Retired/ Beneficiaries	Terminated Vested	Totals
	Nonvested	Fully Vested			
2006	2,802	1,992	2,517	15	7,326
2007	2,942	1,940	2,683	15	7,580
2008	3,211	1,849	2,768	16	7,844
2009	3,516	1,735	2,876	19	8,146
2010	3,609	1,745	2,989	20	8,363
2011	3,578	1,733	3,087	23	8,421
2012	3,572	1,758	3,207	22	8,559
2013	3,481	1,885	3,326	24	8,716
2014	3,416	1,931	3,477	24	8,848
2015	3,255	2,007	3,647	22	8,931





STATISTICAL SECTION

**Total Pensions in Force by Type and by Age  
Year Ended June 30, 2015**

Age on June 30,	Total	Type of Pension		Survivor
		Service	Disability	
Under 40	27	-	6	21
40-44	20	3	10	7
45-49	90	50	26	14
50-54	388	314	43	31
55-59	616	558	21	37
60-64	767	673	25	69
65-69	742	634	14	94
70-74	374	271	3	100
75-79	283	183	6	94
80-84	189	134		55
85 and over	151	62		89
<b>Total</b>	<b>3,647</b>	<b>2,882</b>	<b>154</b>	<b>611</b>

**Pensions Awarded in Current Year by Type and by Age  
Year Ended June 30, 2015**

Age on June 30,	Total	Type of Pension		Survivor
		Service	Disability	
Under 40	2	-	-	2
40-44	4	2	2	-
45-49	26	22	2	2
50-54	56	52	2	2
55-59	82	78	-	4
60-64	29	23	-	6
65-69	17	9	-	8
70-74	5	-	-	5
75-79	5	-	-	5
80-85	1	-	-	1
85 and over	1	-	-	1
<b>Total</b>	<b>228</b>	<b>186</b>	<b>6</b>	<b>36</b>

**Pensions Awarded in Current Year by Type and by Monthly Amount  
Year Ended June 30, 2015**

Monthly Amount	Total	Type of Pension		Survivor
		Service	Disability	
Under \$1000	1	1	-	-
\$1000-\$2000	1	1	-	-
\$2000-\$3000	11	2	2	7
\$3000-\$4000	126	106	3	17
\$4000-\$5000	72	62	1	9
\$5000-\$6000	15	12	-	3
\$6000 and over	2	2	-	-
<b>Total</b>	<b>228</b>	<b>186</b>	<b>6</b>	<b>36</b>

STATISTICAL SECTION

**Average Monthly Benefit Amounts  
Previous Ten Fiscal Years**

Member Retiring During Fiscal Years	Years Credited Service										All Members
	<5	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	>45	
2006 Avg monthly benefit	\$ -	\$ 2,432	\$ 2,666	\$ 2,809	\$ 3,289	\$ 3,455	\$ 3,612	\$ 4,290	\$ 5,204	\$ -	\$ 3,510
Avg final Avg salary	\$ -	\$ 4,250	\$ 4,848	\$ 5,112	\$ 5,952	\$ 6,306	\$ 6,063	\$ 6,404	\$ 6,638	\$ -	\$ 6,027
Avg DROP Balance	\$ -	\$ 5,000	\$ 5,000	\$ 5,000	\$ 79,836	\$ 382,006	\$ 586,394	\$ 677,856	\$ 761,724	\$ -	\$ 355,204
Number of retirees	-	7	3	4	55	44	46	23	2	-	184
2007 Avg monthly benefit	\$ -	\$ 2,463	\$ 2,742	\$ -	\$ 3,272	\$ 3,472	\$ 3,450	\$ 4,329	\$ 4,219	\$ -	\$ 3,447
Avg final Avg salary	\$ -	\$ 4,478	\$ 4,930	\$ -	\$ 5,841	\$ 6,284	\$ 5,977	\$ 6,455	\$ 5,676	\$ -	\$ 6,004
Avg DROP Balance	\$ -	\$ 5,000	\$ 5,000	\$ -	\$ 131,167	\$ 379,358	\$ 578,912	\$ 739,378	\$ 740,515	\$ -	\$ 367,727
Number of retirees	-	1	7	-	58	46	44	16	1	-	173
2008 Avg monthly benefit	\$ -	\$ 1,665	\$ 2,502	\$ 3,803	\$ 3,498	\$ 3,359	\$ 3,771	\$ 4,031	\$ 5,045	\$ -	\$ 3,520
Avg final Avg salary	\$ -	\$ 4,405	\$ 5,037	\$ 6,914	\$ 5,910	\$ 3,021	\$ 6,461	\$ 6,286	\$ 6,949	\$ -	\$ 6,052
Avg DROP Balance	\$ -	\$ 5,000	\$ 5,000	\$ 5,000	\$ 144,905	\$ 399,403	\$ 654,515	\$ 772,141	\$ 947,241	\$ -	\$ 381,261
Number of retirees	-	3	3	1	39	29	23	10	2	-	110
2009 Avg monthly benefit	\$ -	\$ -	\$ -	\$ 3,064	\$ 3,698	\$ 3,518	\$ 3,677	\$ 4,396	\$ 4,266	\$ -	\$ 3,669
Avg final Avg salary	\$ -	\$ -	\$ -	\$ 6,415	\$ 2,559	\$ 5,242	\$ 6,623	\$ 6,635	\$ 6,165	\$ -	\$ 5,150
Avg DROP Balance	\$ -	\$ -	\$ -	\$ 5,000	\$ 221,852	\$ 359,788	\$ 720,598	\$ 980,656	\$ 969,869	\$ -	\$ 477,574
Number of retirees	-	-	-	2	29	50	36	8	3	-	128
2010 Avg monthly benefit	\$ -	\$ -	\$ 2,832	\$ 3,909	\$ 3,474	\$ 3,779	\$ 3,851	\$ 4,130	\$ 3,973	\$ -	\$ 3,770
Avg final Avg salary	\$ -	\$ -	\$ 5,149	\$ 5,888	\$ 6,016	\$ 6,382	\$ 6,932	\$ 6,895	\$ 5,871	\$ -	\$ 6,457
Avg DROP Balance	\$ -	\$ -	\$ 5,000	\$ 5,000	\$ 194,752	\$ 382,059	\$ 759,037	\$ 988,599	\$ 987,988	\$ -	\$ 501,842
Number of retirees	-	-	2	4	26	48	32	15	3	-	130
2011 Avg monthly benefit	\$ 926	\$ -	\$ 2,562	\$ 3,009	\$ 3,679	\$ 3,929	\$ 3,640	\$ 4,062	\$ 3,941	\$ -	\$ 3,816
Avg final Avg salary	\$ 4,117	\$ -	\$ 4,658	\$ 5,472	\$ 6,457	\$ 6,572	\$ 6,581	\$ 7,107	\$ 6,063	\$ -	\$ 6,584
Avg DROP Balance	\$ -	\$ -	\$ 5,000	\$ 5,000	\$ 131,819	\$ 442,433	\$ 698,025	\$ 1,065,857	\$ 1,047,127	\$ -	\$ 536,243
Number of retirees	1	-	1	1	15	68	28	17	1	-	132
2012 Avg monthly benefit	\$ 972	\$ 4,489	\$ -	\$ 2,605	\$ 3,681	\$ 4,011	\$ 3,696	\$ 4,148	\$ 4,008	\$ 5,642	\$ 3,908
Avg final Avg salary	\$ 4,320	\$ 4,489	\$ -	\$ 5,920	\$ 6,606	\$ 6,844	\$ 6,663	\$ 7,047	\$ 6,047	\$ 5,961	\$ 6,726
Avg DROP Balance	\$ -	\$ -	\$ -	\$ -	\$ 146,704	\$ 466,282	\$ 729,916	\$ 1,066,076	\$ 1,179,404	\$ 1,536,548	\$ 584,831
Number of retirees	1	1	-	1	17	70	33	15	3	2	143
2013 Avg monthly benefit	\$ -	\$ -	\$ -	\$ -	\$ 3,900	\$ 4,024	\$ 4,167	\$ 4,076	\$ 3,983	\$ 5,535	\$ 4,068
Avg final Avg salary	\$ -	\$ -	\$ -	\$ -	\$ 6,728	\$ 6,554	\$ 7,171	\$ 7,208	\$ 6,113	\$ 7,236	\$ 6,860
Avg DROP Balance	\$ -	\$ -	\$ -	\$ -	\$ 59,940	\$ 514,240	\$ 775,272	\$ 1,161,766	\$ 1,318,435	\$ 1,674,363	\$ 653,105
Number of retirees	-	-	-	-	19	58	43	23	2	1	146
2014 Avg monthly benefit	\$ -	\$ -	\$ -	\$ 2,375	\$ 3,769	\$ 4,117	\$ 4,162	\$ 4,029	\$ 3,802	\$ -	\$ 4,073
Avg final Avg salary	\$ -	\$ -	\$ -	\$ 5,106	\$ 6,713	\$ 6,728	\$ 6,841	\$ 7,217	\$ 6,019	\$ -	\$ 6,834
Avg DROP Balance	\$ -	\$ -	\$ -	\$ -	\$ 87,531	\$ 578,735	\$ 762,664	\$ 1,135,941	\$ 1,309,578	\$ -	\$ 689,150
Number of retirees	-	-	-	1	21	51	82	26	1	-	182
2015 Avg monthly benefit	\$ -	\$ 2,069	\$ 1,246	\$ 3,454	\$ 3,811	\$ 4,022	\$ 4,286	\$ 3,994	\$ 4,346	\$ -	\$ 4,092
Avg final Avg salary	\$ -	\$ 4,491	\$ 5,277	\$ 6,361	\$ 6,786	\$ 6,608	\$ 7,112	\$ 7,083	\$ 7,076	\$ -	\$ 6,929
Avg DROP Balance	\$ -	\$ -	\$ -	\$ 5,000	\$ 132,108	\$ 524,044	\$ 751,329	\$ 1,153,557	\$ 1,443,545	\$ -	\$ 685,507
Number of retirees	-	2	1	4	33	42	78	27	5	-	192
Ten Years Ended June 30, 2014											
Avg Monthly Benefit	\$ 949	\$ 2,365	\$ 2,598	\$ 3,256	\$ 3,530	\$ 3,808	\$ 3,908	\$ 4,128	\$ 4,300	\$ 5,606	\$ 3,798
Avg Final Avg Salary	\$ 4,218	\$ 4,351	\$ 4,965	\$ 5,871	\$ 5,863	\$ 6,224	\$ 6,694	\$ 6,895	\$ 6,382	\$ 6,386	\$ 6,394
Avg DROP Balance	\$ -	\$ 3,929	\$ 4,706	\$ 4,444	\$ 131,266	\$ 447,127	\$ 709,756	\$ 996,268	\$ 1,120,936	\$ 1,582,486	\$ 529,008
Number of Retirees	2	14	17	18	312	506	445	180	23	3	1,520

The above chart includes all Service, Proportionate and Disability retirements. It does not include Survivor benefits or pending Delayed Retirements. The DROP Balance includes \$5,000 lump sum benefit.

**DROP Activity**  
**(dollars in thousands)**  
**Years ended June 30**

Fiscal Year	DROP Accounts			DROP Participants		
	Accumulations	Distributions	Total	Entrants	Withdrawals	Total
<b>2006</b>	\$ 73,581	\$ (29,272)	\$ 435,114	296	(168)	1,973
<b>2007</b>	80,863	(23,315)	492,662	120	(157)	1,936
<b>2008</b>	95,543	(9,937)	578,268	15	(100)	1,851
<b>2009</b>	81,590	(10,889)	648,969	13	(126)	1,738
<b>2010</b>	75,874	(16,682)	708,161	106	(117)	1,727
<b>2011</b>	67,927	(11,941)	764,147	128	(112)	1,743
<b>2012</b>	66,898	(11,078)	819,967	148	(129)	1,762
<b>2013</b>	61,634	(13,334)	868,267	253	(143)	1,872
<b>2014</b>	33,171	(13,526)	887,912	232	(183)	1,921
<b>2015</b>	44,580	(11,054)	921,438	256	(186)	1,991

**PROP Activity**  
**(dollars in thousands)**  
**Years ended June 30**

Fiscal Year	PROP Accounts			PROP Participants		
	Accumulations	Distributions	Total	Entrants	Withdrawals	Total
<b>2006</b>	\$ 43,037	\$ (12,233)	\$ 146,618	88	(24)	448
<b>2007</b>	56,938	(11,303)	192,253	115	(16)	547
<b>2008</b>	44,696	(16,680)	220,269	73	(19)	601
<b>2009</b>	75,482	(19,922)	275,829	113	(14)	700
<b>2010</b>	71,913	(24,035)	323,707	95	(22)	773
<b>2011</b>	80,849	(31,125)	373,431	115	(29)	859
<b>2012</b>	98,886	(31,180)	441,137	144	(23)	980
<b>2013</b>	114,392	(39,857)	515,672	162	(33)	1,109
<b>2014</b>	144,224	(40,529)	619,367	176	(28)	1,257
<b>2015</b>	169,517	(46,575)	742,309	176	(11)	1,422



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